



**Australian Government**

# **FBP Food, Beverage and Pharmaceutical**

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## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## FBP10117 Certificate I in Food Processing

### Modification History

Release	Comments
Release 2	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 1.0.

### Qualification Description

This qualification provides the basic skills and knowledge required for entry level workers in the food processing industries for a range of sectors including:

- grain processing (including stock feed, animal feeds, milling wheat, barley, oats and flour milling)
- baking (including large scale production of cakes, pastry, bread, biscuits and plant baking)
- retail baking
- beverages (including juices, soft drinks, cordials, aerated and still waters, energy drinks and other modified beverages, such as vitamin and antioxidant beverages, coffee, tea and ice)
- confectionery
- dairy processing
- fruit and vegetables
- grocery products and supplies (including honey, jams, spreads, sauces, dressings, condiments, spices, edible oils and fats and pasta)
- poultry.

The qualification is designed for application in a highly supervised context, such as VET in schools, induction to industry, or other equivalent introductory environments. All work must be carried out to comply with workplace procedures, in accordance with State/Territory food safety, work health and safety and environmental codes, regulations and legislation that apply to the workplace.

No occupational licensing, legislative or certification requirements apply to this qualification at the time of publication.



## Entry Requirements

There are no entry requirements for this qualification.

## Packaging Rules

To achieve this qualification, competency must be demonstrated in:

- 9 units of competency:
  - 4 core units plus
  - 5 elective units.

Elective units must ensure the integrity of the qualification's Australian Qualifications Framework (AQF) alignment and contribute to a valid, industry-supported vocational outcome. The electives are to be chosen as follows:

- 1 must be selected from Group A. If this qualification is to be applied in a work environment where food is processed for non-human consumption, such as pet food and stock feed or other situations where human food safety skills are not required, FBPOPR2032 Apply work procedures to maintain integrity of product should be selected.
- 3 must be selected from Group B
- 1 may be selected from remaining units in Group B or any currently endorsed Training Package or accredited course packaged at a Certificate I or Certificate II.

### Core Units

FBPOPR1003	Communicate workplace information
FBPOPR1009	Follow work procedures to maintain quality
FBPWHS1001	Identify safe work practices
MSMENV272	Participate in environmentally sustainable work practices

### Elective Units

#### Group A

FBPFSY1001	Follow work procedures to maintain food safety
FBPOPR2032	Apply work procedures to maintain integrity of product

#### Group B

FBPOPR1001	Pack or unpack product manually
FBPOPR1002	Operate automated washing equipment

FBPOPR1004	Prepare basic mixes
FBPOPR1005	Operate basic equipment
FBPOPR1006	Monitor process operation
FBPOPR1007	Participate effectively in a workplace environment
FBPOPR1008	Take and record basic measurements
FBPOPR1010	Carry out manual handling tasks
FBPOPR2069	Use numerical applications in the workplace
FBPRBK1001	Finish products
FBPWIN2002	Communicate wine industry information
SIRXSLS002	Follow point-of-sale procedures
SITXCCS003	Interact with customers
TLIA2014	Use product knowledge to complete work operations

## Qualification Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBP10117 Certificate I in Food Processing Release 2	FBP10117 Certificate I in Food Processing Release 1	Updated unit codes in elective bank of Packaging Rules	Equivalent qualification

## Links

Companion Volume Implementation Guides are found in VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## FBP10217 Certificate I in Baking

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package version 1.0.

### Qualification Description

This qualification describes the basic skills and knowledge of an individual preparing for entry level work or training in a commercial baking environment.

All work must be carried out to comply with workplace procedures, in accordance with State/Territory food safety, and work health and safety, regulations and legislation that apply to the workplace.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

### Entry Requirements

There are no entry requirements for this qualification.

### Packaging Rules

To achieve this qualification, competency must be demonstrated in:

- 8 units of competency:
  - 6 core units plus
  - 2 elective units.

Elective units must ensure the integrity of the qualification's Australian Quality Framework (AQF) alignment and contribute to a valid, industry-supported vocational outcome.

The electives are to be chosen as follows:

- 1 from the electives listed below

- 1 from the electives listed below, or any currently endorsed Training Package or accredited course that is packaged at a Certificate I or II level.

### Core Units

FBPFSY1001	Follow work procedures to maintain food safety
FBPOPR1004	Prepare basic mixes
FBPOPR1005	Operate basic equipment
FBPRBK1001	Finish products
FBPWHS1001	Identify safe work practices
FSKNUM09	Identify, measure and estimate familiar quantities for work

### Elective Units

FBPRBK2001	Assist non laminated pastry production
FBPRBK2003	Assist sponge cake production
FBPRBK2004	Assist basic bread production

## Qualification Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBP10217 Certificate I in Baking	Not applicable	New qualification	No equivalent qualification

## Links

Companion Volumes, including Implementation Guides, are available at VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>



## FBP20117 Certificate II in Food Processing

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package version 1.0.

### Qualification Description

This qualification describes the skills and knowledge for food processing workers employed in the following sectors:

- grain processing (including stock feed, animal feeds, milling wheat, barley, oats and flour milling)
- baking (including large scale production of cakes, pastry, bread, biscuits and plant baking)
- retail baking
- beverages (including juices, soft drinks, cordials, aerated and still waters, energy drinks and other modified beverages, such as vitamin and antioxidant beverages, coffee, tea and ice)
- confectionery
- dairy processing
- fruit and vegetables
- grocery products and supplies (including honey, jams, spreads, sauces, dressings, condiments, spices, edible oils and fats and pasta)
- poultry.

This qualification is designed for application in supervised environments where the work is predictable with some basic problem solving requirements. All work must be carried out to comply with workplace procedures, in accordance with State/Territory food safety, work health and safety and environmental codes, regulations and legislation that apply to the workplace.

No occupational licensing, legislative or certification requirements apply to this qualification at the time of publication.

**^ From 1 July 2022 the elective unit HLTAID002 must no longer be delivered and will be replaced in the Packaging Rules by the unit HLTAID010 - for more information see: <https://asqa.gov.au/news-events/news/reminder-about-superseded-hlt-first-aid-units>**

### Entry Requirements

There are no entry requirements for this qualification.

## Packaging Rules

To achieve this qualification, competency must be demonstrated in:

- 13 units of competency:
  - 4 core units plus
  - 9 elective units.

Elective units must ensure the integrity of the qualification's Australian Qualifications Framework (AQF) alignment and contribute to a valid, industry-supported vocational outcome. The electives are to be chosen as follows:

- 1 must be selected from Group A. If this qualification is to be applied in a work environment where food is processed for non-human consumption, such as pet food and stock feed or other situations where human food safety skills are not required, then *FBPOPR2032 Apply work procedures to maintain integrity of product* should be selected.
- 5 must be selected from Group B
- 1 must be selected from Group B or Group C
- 2 may be selected from the remaining units in Groups B or C, or any currently endorsed Training Package or accredited course packaged at Certificate I (maximum 1 unit), Certificate II or Certificate III (maximum 1 unit) levels.

### Core Units

FDFOHS2001 A	Participate in OHS processes
FDFOP2063A	Apply quality systems and procedures
FDFOP2064A	Provide and apply workplace information
MSMENV272	Participate in environmentally sustainable work practices

### Elective Units

An asterisk (\*) next to the unit code indicates that there are prerequisite requirements which must be met when packaging the qualification. Please refer to the Prerequisite requirements table for details.

### Group A

FBPOPR2032	Apply work procedures to maintain integrity of product
FDFFS2001A	Implement the food safety program and procedures

### Group B – Sector Specialist and Cross Sector elective units

**Baking**

FBPOPR2024	Operate a cooling, slicing and wrapping process
FBPOPR2055	Freeze dough
FBPPBK2001	Operate a cooling and slicing process
FBPPBK2002	Operate a pastry forming and filling process
FBPPBK2003	Manufacture rye crisp breads
FBPPBK2004	Manufacture wafer products
FBPPBK2005	Operate a doughnut making process
FBPPBK2006	Operate a griddle production process
FBPPBK2007	Operate a pastry production process

**Beverages**

FBPBEV2001	Operate a deaeration, mixing and carbonation process
FBPBEV2002	Manufacture roast and ground coffee
FBPBEV2003	Operate an ice manufacturing process

**Confectionery**

FBPCON2001	Examine raw ingredients used in confectionery
FBPCON2002	Operate a boiled confectionery process
FBPCON2003	Operate a chocolate conching process
FBPCON2004	Operate a chocolate depositing or moulding process
FBPCON2005	Operate a confectionery depositing process
FBPCON2006	Operate a granulation and compression process
FBPCON2007	Operate a panning process
FBPCON2008	Operate a chocolate refining process
FBPCON2009	Operate a starch moulding process



**Dairy processing**

FBPDPR2001	Operate a butter churning process
FBPDPR2002 *	Operate a butter oil process
FBPDPR2003	Operate a curd production and cutting process
FBPDPR2004	Operate a cooling and hardening process
FBPDPR2005	Operate a cheese pressing and moulding process
FBPDPR2006	Operate a fermentation process

**Fruit and vegetables**

FBPFAV2001	Apply hydro-cooling process to fresh produce
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**Grain processing**

AHCBAC204	Prepare grain storages
FBPGRA2001	Operate a liquid, mash or block stockfeed process
FBPGRA2002	Recognise mill operations and technologies
FBPGRA2003	Operate a grain conditioning process
FBPGRA2004	Operate a grain cleaning process
FBPGRA2005	Operate a purification process
FBPGRA2006	Operate a scalping and grading process
FBPGRA2007	Operate a scratch and sizing process
FBPGRA2008	Operate a break roll process
FBPGRA2009	Operate a pelleting process
FBPGRA2010	Handle grain in a storage area
FBPGRA2011 *	Receive grain for malting

FBPGRA2012 *	Prepare malted grain
FBPGRA2013	Blend and dispatch malt
TLIJ2004	Implement grain monitoring measures

### Grocery products and supplies

FBPGPS2001	Operate a bleaching process
FBPGPS2002	Operate a complecting process
FBPGPS2003	Operate a deodorising process
FBPGPS2004	Operate a flake preparation process
FBPGPS2005	Operate a fractionation process
FBPGPS2006	Operate a hydrogenation process
FBPGPS2007	Operate an interesterification process
FBPGPS2008	Operate a neutralisation process
FBPGPS2009	Operate a soap splitting process
FBPGPS2010	Operate a winterisation process
FBPGPS2011	Operate a creamed honey manufacture process

### Poultry

AMPA2006	Apply animal welfare and handling requirements
AMPA2174	Clean after operations - boning room
AMPP201	Operate a poultry dicing, stripping or mincing process
AMPP202	Operate a poultry evisceration process
AMPP203	Grade poultry carcass
AMPP204	Harvest edible poultry offal
AMPP205	Operate a poultry marinade injecting process

AMPP206	Operate a poultry washing and chilling process
AMPP207	Operate the bird receival and hanging process
AMPP208	Operate a poultry stunning, killing and defeathering process
FBPEGG2001	Work on an egg grading floor
FBPEGG2002 *	Operate egg grading and packing floor equipment

### Cross sector units

AMPX207	Vacuum pack product
AMPX209	Sharpen knives
FBPOPR2001	Work effectively in the food processing industry
FBPOPR2002	Inspect and sort materials and product
FBPOPR2003	Prepare and monitor beer yeast propagation processes
FBPOPR2004	Operate a beer packaging process
FBPOPR2005	Operate a beer filling process
FBPOPR2006	Operate a bulk dry goods transfer process
FBPOPR2007	Work in a freezer storage area
FBPOPR2008	Operate a bulk liquid transfer process
FBPOPR2009	Load and unload tankers
FBPOPR2010	Work with temperature controlled stock
FBPOPR2011	Identify key stages and beer production equipment in a brewery
FBPOPR2012	Maintain food safety when loading, unloading and transporting food
FBPOPR2013 *	Operate a bright beer tank process

FBPOPR2014	Participate in sensory analyses
FBPOPR2015 *	Operate a beer filtration process
FBPOPR2016 *	Operate a beer maturation process
FBPOPR2017	Operate a blending, sieving and bagging process
FBPOPR2018	Operate a case packing process
FBPOPR2019	Fill and close product in cans
FBPOPR2020	Operate a form, fill and seal process
FBPOPR2021	Operate a fill and seal process
FBPOPR2022	Operate a high speed wrapping process
FBPOPR2023	Operate a packaging process
FBPOPR2025	Manufacture extruded and toasted products
FBPOPR2026	Operate a forming or shaping process
FBPOPR2027	Dispense non-bulk ingredients
FBPOPR2028	Operate a mixing or blending process
FBPOPR2029	Operate a baking process
FBPOPR2030 *	Operate a brewery fermentation process
FBPOPR2031	Operate a coating application process
FBPOPR2033	Operate a depositing process
FBPOPR2034	Operate an evaporation process
FBPOPR2035	Operate an enrobing process
FBPOPR2036	Operate an extrusion process
FBPOPR2037	Operate a filtration process
FBPOPR2038	Operate a grinding process

FBPOPR2039	Operate a frying process
FBPOPR2040	Operate a heat treatment process
FBPOPR2041	Operate a mixing or blending and cooking process
FBPOPR2042	Operate a drying process
FBPOPR2043	Operate an homogenising process
FBPOPR2044	Operate a retort process
FBPOPR2045	Operate pumping equipment
FBPOPR2046	Operate a production process
FBPOPR2047	Operate a portion saw
FBPOPR2048	Pre-process raw materials
FBPOPR2049	Operate a reduction process
FBPOPR2050	Operate a separation process
FBPOPR2051	Operate a spreads production process
FBPOPR2052	Operate a chocolate tempering process
FBPOPR2053	Operate a washing and drying process
FBPOPR2054	Operate a water purification process
FBPOPR2056	Operate a freezing process
FBPOPR2057	Operate a membrane process
FBPOPR2058	Operate a holding and storage process
FBPOPR2059	Operate a continuous freezing process
FBPOPR2060	Operate an automated cutting process
FBPOPR2061 *	Operate a wort production process
FDFSUG222A	Operate a waste water treatment system
FDFOP1003A	Carry out manual handling tasks

FDFOP2003A	Clean equipment in place
FDFOP2004A	Clean and sanitise equipment
FDFOP2005A	Work in a socially diverse environment
FDFOP2011A	Conduct routine maintenance
FDFOP2013A	Apply sampling procedures
FDFOP2015A *	Apply principles of statistical process control
FDFOP2016A	Work in a food handling area for non-food handlers
FDFOP2030A	Operate a process control interface
FDFOP2032A *	Work in a clean room environment
FDFOP2061A	Use numerical applications in the workplace
FDFPPL2001 A	Participate in work teams and groups
MSL973001	Perform basic tests
PMBPROD21 1	Operate blow moulding equipment
PMBPROD27 0	Operate injection blow moulding equipment
TLIA2009	Complete and check import/export documentation
TLIA2014	Use product knowledge to complete work operations
TLIA2021	Despatch stock
TLIA4025	Regulate temperature controlled stock
TLID2003	Handle dangerous goods/hazardous substances
TLID2004	Load and unload goods/cargo
TLID2010	Operate a forklift
TLIK2010	Use infotechnology devices in the workplace

**Group C**

BSBITU201	Produce simple word processed documents
BSBITU202	Create and use spreadsheets
BSBWOR204	Use business technology
FDFSUG218A	Operate a boiler - basic
HLTAID002 ^ <b>HLTAID010</b>	Provide basic emergency life support <b>Provide basic emergency life support (must be delivered from 1 July 2022)</b>
MSS402001	Apply competitive systems and practices
MSS402002	Sustain process improvements
MSS402010	Manage the impact of change on own work
MSS402021	Apply Just in Time procedures
MSS402030	Apply cost factors to work practices
MSS402031	Interpret product costs in terms of customer requirements
MSS402040	Apply 5S procedures
MSS402050	Monitor process capability
MSS402051	Apply quality standards
MSS402060	Use planning software systems in operations
MSS402061	Use SCADA systems in operations
MSS402080	Undertake root cause analysis
MSS402081	Contribute to the application of a proactive maintenance strategy
SIRRMER001	Produce visual merchandise displays
SIRRRTF001	Balance and secure point-of-sale terminal
SIRXPDK001	Advise on products and services

SIRXRSK001	Identify and respond to security risks
SITHFAB005*	Prepare and serve espresso coffee

### Prerequisite requirements

Unit of competency	Prerequisite requirement
FBPDPR2002 Operate a butter oil process	FBPOPR2043 Operate an homogenising process
FBPEGG2002 Operate egg grading and packing floor equipment	FBPEGG2001 Work on an egg grading floor
FBPGRA2011 Receive grain for malting	FBPGRA2010 Handle grain in a storage area
FBPGRA2012 Prepare malted grain	FBPGRA2010 Handle grain in a storage area
FBPOPR2013 Operate a bright beer tank process	FBPOPR2011 Identify key stages and beer production equipment in a brewery
FBPOPR2015 Operate a beer filtration process	FBPOPR2011 Identify key stages and beer production equipment in a brewery
FBPOPR2016 Operate a beer maturation process	FBPOPR2011 Identify key stages and beer production equipment in a brewery
FBPOPR2030 Operate a brewery fermentation process	FBPOPR2011 Identify key stages and beer production equipment in a brewery
FBPOPR2061 Operate a wort production process	FBPOPR2011 Identify key stages and beer production equipment in a brewery
FDFOP2015A Apply principles of statistical process control	FDFOP2061A Use numerical applications in the workplace
FDFOP2032A Work in a clean room environment	FDFFS200A1 Implement the food safety program and procedures OR FDFPH2001A Apply Good Manufacturing Practice procedures



SITHFAB005 Prepare and serve espresso coffee	SITXFSA001 Use hygienic practices for food safety
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## Qualification Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBP20117 Certificate II in Food Processing	FDF20111 Certificate II in Food Processing	Updated to meet Standards for Training Packages  Packaging rules clarified to reflect delivery of this qualification for processing of food for non-human and human consumption  Imported units updated or deleted	Equivalent qualification

## Links

Companion Volumes, including Implementation Guides, are available at VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## FBP20217 Certificate II in Baking

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package version 1.0.

### Qualification Description

This qualification describes the skills and knowledge of a baker's assistant working in a commercial baking environment.

All work must be carried out to comply with workplace procedures, in accordance with State/Territory food safety, and work health and safety, regulations and legislation that apply to the workplace.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

**^ From 1 July 2022 the elective unit HLTAID003 must no longer be delivered and will be replaced in the Packaging Rules by the unit HLTAID011** - for more information see: <https://asqa.gov.au/news-events/news/reminder-about-superseded-hlt-first-aid-units>

### Entry Requirements

There are no entry requirements for this qualification.

### Packaging Rules

To achieve this qualification, competency must be demonstrated in:

- 11 units of competency:
  - 7 core units plus
  - 4 elective units.

Elective units must ensure the integrity of the qualification's Australian Quality Framework (AQF) alignment and contribute to a valid, industry-supported vocational outcome.

The electives are to be chosen as follows:

- 1 from the units listed in Group A
- 2 from the remaining units listed in Group A or units listed in Group B

- 1 from the remaining units listed in Group A, or units listed in Group B, or any currently endorsed Training Package or accredited course that is packaged at a Certificate II or III level.

### Core Units

FBPRBK2002	Use food preparation equipment to prepare fillings
FBPRBK2005	Maintain ingredient stores
FBPRBK3005	Produce basic bread products
FDFFS2001A	Implement the food safety program and procedures
FDFOHS2001A	Participate in OHS processes
FDFOP2061A	Use numerical applications in the workplace
FDFOP2064A	Provide and apply workplace information

### Elective Units

#### Group A

FBPRBK3002	Produce non laminated pastry products
FBPRBK3008	Produce sponge cake products
FBPRBK3014	Produce sweet yeast products

#### Group B

FBPRBK3009	Produce biscuit and cookie products
FDFOP2005A	Work in a socially diverse environment
HLTAID003 ^ <b>HLTAID011</b>	Provide first aid <b>Provide First Aid (must be delivered from 1 July 2022)</b>
SIRRMER002	Merchandise food products
SIRXPDK001	Advise on products and services
SIRXSLS001	Sell to the retail customer

## Qualification Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBP20217 Certificate II in Baking	FDF20510 Certificate II in Retail Baking Assistance	Redesigned. Units added and removed from the core and electives	No equivalent qualification

## Links

Companion Volumes, including Implementation Guides, are available at VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## FBP20317 Certificate II in Food Processing (Sales)

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package version 1.0.

### Qualification Description

This qualification describes the skills and knowledge for workers assisting with sales within a food manufacturing or retail food processing workplace that involves routine work with some basic problem solving in a supervised environment.

All work must be carried out to comply with workplace procedures, in accordance with State/Territory food safety, work health and safety and environmental codes, regulations and legislation that apply to the workplace.

No occupational licensing, legislative or certification requirements apply to this qualification at the time of publication.

**^ From 1 July 2022 the elective unit HLTAID002 must no longer be delivered and will be replaced in the Packaging Rules by the unit HLTAID010 - for more information see: <https://asqa.gov.au/news-events/news/reminder-about-superseded-hlt-first-aid-units>**

### Entry Requirements

There are no entry requirements for this qualification.

### Packaging Rules

To achieve this qualification, competency must be demonstrated in:

- 13 units of competency:
  - 5 core units plus
  - 8 elective units.

Elective units must ensure the integrity of the qualification's Australian Qualifications Framework (AQF) alignment and contribute to a valid, industry-supported vocational outcome. The electives are to be chosen as follows:

- 1 must be selected from Group A. If this qualification is to be applied in a work environment where food is processed for non-human consumption, such as pet food and stock feed or other situations where human food safety skills are not required, FBPOPR2032 Apply work procedures to maintain integrity of product should be selected.
- 2 must be selected from Group B
- 2 must be selected from Group C
- 3 may be selected from the remaining units in Groups B, C or D, or any currently endorsed Training Package or accredited course packaged at Certificate I (maximum 1 unit), Certificate II or Certificate III (maximum 1 unit) levels.

### Core Units

FDFOHS2001A	Participate in OHS processes
FDFOP2061A	Use numerical applications in the workplace
FDFOP2063A	Apply quality systems and procedures
FDFOP2064A	Provide and apply workplace information
MSMENV272	Participate in environmentally sustainable work practices

### Elective Units

An asterisk (\*) next to the unit code indicates that there are prerequisite requirements which must be met when packaging the qualification. Please refer to the Prerequisite requirements table for details.

### Group A

FBPOPR2032	Apply work procedures to maintain integrity of product
FDFFS2001A	Implement the food safety program and procedures

### Group B

SIRRMER001	Produce visual merchandise displays
SIRRRTF001	Balance and secure point-of-sale terminal
SIRXPDK001	Advise on products and services
SIRXRSK001	Identify and respond to security risks

**Group C - Sector Specialist Units****Baking**

FBPOPR2024	Operate a cooling, slicing and wrapping process
FBPOPR2055	Freeze dough
FBPPBK2001	Operate a cooling and slicing process
FBPPBK2002	Operate a pastry forming and filling process
FBPPBK2003	Manufacture rye crisp breads
FBPPBK2004	Manufacture wafer products
FBPPBK2005	Operate a doughnut making process
FBPPBK2006	Operate a griddle production process
FBPPBK2007	Operate a pastry production process

**Beverages**

FBPBEV2001	Operate a deaeration, mixing and carbonation process
FBPBEV2002	Manufacture roast and ground coffee
FBPBEV2003	Operate an ice manufacturing process

**Confectionery**

FBPCON2001	Examine raw ingredients used in confectionery
FBPCON2002	Operate a boiled confectionery process
FBPCON2003	Operate a chocolate conching process
FBPCON2004	Operate a chocolate depositing or moulding process
FBPCON2005	Operate a confectionery depositing process
FBPCON2006	Operate a granulation and compression process
FBPCON2007	Operate a panning process

FBPCON2008	Operate a chocolate refining process
FBPCON2009	Operate a starch moulding process

### Dairy processing

FBPDPR2001	Operate a butter churning process
FBPDPR2002 *	Operate a butter oil process
FBPDPR2003	Operate a curd production and cutting process
FBPDPR2004	Operate a cooling and hardening process
FBPDPR2005	Operate a cheese pressing and moulding process
FBPDPR2006	Operate a fermentation process

### Fruit and vegetables

FBPFAV2001	Apply hydro-cooling process to fresh produce
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### Grain processing

AHCBAC204	Prepare grain storages
FBPGRA2001	Operate a liquid, mash or block stockfeed process
FBPGRA2002	Recognise mill operations and technologies
FBPGRA2003	Operate a grain conditioning process
FBPGRA2004	Operate a grain cleaning process
FBPGRA2005	Operate a purification process
FBPGRA2006	Operate a scalping and grading process
FBPGRA2007	Operate a scratch and sizing process
FBPGRA2008	Operate a break roll process
FBPGRA2009	Operate a pelleting process



FBPGRA2010	Handle grain in a storage area
TLIJ2003	Apply grain protection measures
TLIJ2004	Implement grain monitoring measures

### Grocery products and supplies

FBPGPS2001	Operate a bleaching process
FBPGPS2002	Operate a complecting process
FBPGPS2003	Operate a deodorising process
FBPGPS2004	Operate a flake preparation process
FBPGPS2005	Operate a fractionation process
FBPGPS2006	Operate a hydrogenation process
FBPGPS2007	Operate an interesterification process
FBPGPS2008	Operate a neutralisation process
FBPGPS2009	Operate a soap splitting process
FBPGPS2010	Operate a winterisation process
FBPGPS2011	Operate a creamed honey manufacture process

### Poultry

AMPA2006	Apply animal welfare and handling requirements
AMPA2174	Clean after operations - boning room
AMPP201	Operate a poultry dicing, stripping or mincing process
AMPP202	Operate a poultry evisceration process
AMPP203	Grade poultry carcass
AMPP204	Harvest edible poultry offal
AMPP205	Operate a poultry marinade injecting process
AMPP206	Operate a poultry washing and chilling process

AMPP207	Operate the bird receival and hanging process
AMPP208	Operate a poultry stunning, killing and defeathering process
FBPEGG2001	Work on an egg grading floor
FBPEGG2002 *	Operate egg grading and packing floor equipment

### Cross sector

AHCWRK308	Handle bulk materials in storage area
AMPX207	Vacuum pack product
AMPX209	Sharpen knives
FBPOPR2001	Work effectively in the food processing industry
FBPOPR2002	Inspect and sort materials and product
FBPOPR2006	Operate a bulk dry goods transfer process
FBPOPR2007	Work in a freezer storage area
FBPOPR2008	Operate a bulk liquid transfer process
FBPOPR2009	Load and unload tankers
FBPOPR2010	Work with temperature controlled stock
FBPOPR2012	Maintain food safety when loading, unloading and transporting food
FBPOPR2014	Participate in sensory analyses
FBPOPR2017	Operate a blending, sieving and bagging process
FBPOPR2018	Operate a case packing process
FBPOPR2019	Fill and close product in cans
FBPOPR2020	Operate a form, fill and seal process
FBPOPR2021	Operate a fill and seal process
FBPOPR2022	Operate a high speed wrapping process

FBPOPR2023	Operate a packaging process
FBPOPR2025	Manufacture extruded and toasted products
FBPOPR2026	Operate a forming or shaping process
FBPOPR2027	Dispense non-bulk ingredients
FBPOPR2028	Operate a mixing or blending process
FBPOPR2029	Operate a baking process
FBPOPR2031	Operate a coating application process
FBPOPR2033	Operate a depositing process
FBPOPR2034	Operate an evaporation process
FBPOPR2035	Operate an enrobing process
FBPOPR2036	Operate an extrusion process
FBPOPR2037	Operate a filtration process
FBPOPR2038	Operate a grinding process
FBPOPR2039	Operate a frying process
FBPOPR2040	Operate a heat treatment process
FBPOPR2041	Operate a mixing or blending and cooking process
FBPOPR2042	Operate a drying process
FBPOPR2043	Operate an homogenising process
FBPOPR2044	Operate a retort process
FBPOPR2045	Operate pumping equipment
FBPOPR2046	Operate a production process
FBPOPR2047	Operate a portion saw
FBPOPR2048	Pre-process raw materials
FBPOPR2049	Operate a reduction process
FBPOPR2050	Operate a separation process

FBPOPR2051	Operate a spreads production process
FBPOPR2052	Operate a chocolate tempering process
FBPOPR2053	Operate a washing and drying process
FBPOPR2054	Operate a water purification process
FBPOPR2056	Operate a freezing process
FBPOPR2057	Operate a membrane process
FBPOPR2058	Operate a holding and storage process
FBPOPR2059	Operate a continuous freezing process
FBPOPR2060	Operate an automated cutting process
FDFSUG218A	Operate a boiler - basic
FDFSUG222A	Operate a waste water treatment system
FDFOP2003A	Clean equipment in place
FDFOP2004A	Clean and sanitise equipment
FDFOP2005A	Work in a socially diverse environment
FDFOP2011A	Conduct routine maintenance
FDFOP2013A	Apply sampling procedures
FDFOP2016A	Work in a food handling area for non-food handlers
FDFOP2030A	Operate a process control interface
FDFOP2032A *	Work in a clean room environment
MSL973001	Perform basic tests
PMBPROD21 1	Operate blow moulding equipment
PMBPROD27 0	Operate injection blow moulding equipment
TLIA2009	Complete and check import/export documentation

TLIA2021	Despatch stock
TLIA4025	Regulate temperature controlled stock
TLID2003	Handle dangerous goods/hazardous substances
TLID2004	Load and unload goods/cargo

### Group D

BSBITU201	Produce simple word processed documents
BSBITU202	Create and use spreadsheets
BSBWOR204	Use business technology
FDFOP1003A	Carry out manual handling tasks
FDFOP2015A*	Apply principles of statistical process control
FDFPPL2001A	Participate in work teams and groups
HLTAID002 ^ <b>HLTAID010</b>	Provide basic emergency life support <b>Provide basic emergency life support (must be delivered from 1 July 2022)</b>
MSS402001	Apply competitive systems and practices
MSS402002	Sustain process improvements
MSS402010	Manage the impact of change on own work
MSS402021	Apply Just in Time procedures
MSS402030	Apply cost factors to work practices
MSS402031	Interpret product costs in terms of customer requirements
MSS402040	Apply 5S procedures
MSS402050	Monitor process capability
MSS402051	Apply quality standards
MSS402060	Use planning software systems in operations

MSS402061	Use SCADA systems in operations
MSS402080	Undertake root cause analysis
MSS402081	Contribute to the application of a proactive maintenance strategy
SITHFAB005*	Prepare and serve espresso coffee
TLIA2014	Use product knowledge to complete work operations
TLID2010	Operate a forklift
TLIK2010	Use infotechnology devices in the workplace

### Prerequisite requirements

Unit of competency	Prerequisite requirement
FBPDPR2002 Operate a butter oil process	FBPOPR2043 Operate an homogenising process
FBPEGG2002 Operate egg grading and packing floor equipment	FBPEGG2001 Work on an egg grading floor
FDFOP2015A Apply principles of statistical process control	FDFOP2061A Use numerical applications in the workplace
FDFOP2032A Work in a clean room environment	FDFFS2001A Implement the food safety program and procedures OR FDFPH2001A Apply Good Manufacturing Practice procedures
SITHFAB005 Prepare and serve espresso coffee	SITXFSA001 Use hygienic practices for food safety

### Qualification Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBP20317	FDF20911	Updated to meet	Equivalent qualification

Code and title current version	Code and title previous version	Comments	Equivalence status
Certificate II in Food Processing (Sales)	Certificate II in Food Processing (Sales)	Standards for Training Packages  Packaging rules clarified to reflect delivery of this qualification for processing of food for non-human and human consumption  Imported units updated or deleted	

## Links

Companion Volumes, including Implementation Guides, are available at VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## FBP20418 Certificate II in Pharmaceutical Manufacturing

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

### Qualification Description

This qualification describes the skills and knowledge for support roles within pharmaceutical manufacturing environments. Roles covered include equipment and facility cleaners, production machinery operators and packing line workers that work under routine supervision where the work is predictable and structured with limited judgement requirements.

Work must comply with good manufacturing practice, health and safety and environmental regulations and legislation that apply to the workplace.

No occupational licensing, legislative or certification requirements apply to this qualification at the time of publication.

### Entry Requirements

There are no entry requirements for this qualification.

### Packaging Rules

To achieve this qualification, competency must be demonstrated in:

- 12 units of competency:
  - 5 core units, plus
  - 7 elective units.

Elective units must ensure the integrity of the qualifications' Australian Qualification Framework (AQF) alignment and contribute to a valid, industry-supported vocational outcome. The electives are to be chosen as follows:

- 4 must be from electives Group A
- 3 from the remaining units listed in groups A or B, or any currently endorsed Training Package or accredited course.

### Core Units



FBPOPR2071	Provide and apply workplace information
FBPPHM2001	Follow work procedures to maintain Good Manufacturing Practice requirements
FBPPHM3004	Clean and sanitise facilities and equipment
FBPWHS2001	Participate in work health and safety processes
MSMENV272	Participate in environmentally sustainable work practices

## Elective Units

### Group A

FBPBPG3002	Operate the labelling process
FBPOPR1010	Carry out manual handling tasks
FBPOPR2002	Inspect and sort materials and product
FBPOPR2007	Work in a freezer storage area
FBPOPR2009	Load and unload tankers
FBPOPR2010	Work with temperature controlled stock
FBPOPR2023	Operate a packaging process
FBPPHM3002	Operate a pharmaceutical production process
FBPPHM3003	Work in a controlled environment
TLIG2007	Work in a socially diverse environment

### Group B

AMPX207	Vacuum pack product
BSBWOR203	Work effectively with others
BSBWOR204	Use business technology
FBPOPR2069	Use numerical applications in the workplace
FBPOPR2070	Apply quality systems and procedures

TLIA2014	Use product knowledge to complete work operations
TLIA2020	Replenish stock
TLIA2021	Despatch stock
TLID2003	Handle dangerous goods/hazardous substances
TLID2004	Load and unload goods/cargo
TLID2010	Operate a forklift
TLIK2010	Use infotechnology devices in the workplace
TLILIC0003	Licence to operate a forklift truck

## Qualification Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBP20418 Certificate II in Pharmaceutical Manufacturing	FDF20211 Certificate II in Pharmaceutical Manufacturing	Updated to meet Standards for Training Packages  Changes to packaging rules, core and elective units	No equivalent qualification

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## FBP20518 Certificate II in Wine Industry Operations

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package version 2.0.

### Qualification Description

This qualification describes the skills and knowledge required for entry level workers in the wine industry. These workers carry out routine work under supervision, in a range of sectors, including:

- process tasks in bottling and packaging, cellar operations and laboratory testing
- customer service tasks in cellar door
- tasks related to viticulture, harvesting and post-harvesting.

All work must be carried out to comply with workplace procedures, in accordance with state/territory food safety, and health and safety, regulations and legislation that apply to the workplace.

No occupational licensing, legislative or certification requirements apply to this qualification at the time of publication.

### Entry Requirements

There are no entry requirements for this qualification.

### Packaging Rules

To achieve this qualification, competency must be demonstrated in:

- 13 units of competency:
  - 3 core units, plus
  - 10 elective units.

Elective units must ensure the integrity of the qualification's Australian Qualification Framework (AQF) alignment and contribute to a valid, industry-supported vocational outcome.

The electives are to be chosen as follows:

- up to 10 may be selected from the elective units listed below

- up to 3 units may be selected from any currently endorsed Training Package or accredited course.

No more than 4 of the 10 electives selected can be coded with an AQF indicator above level 2 or reflect outcomes above AQF level 2.

### Core Units

FBPFSY2001	Implement the food safety program and procedures
FBPOPR2070	Apply quality systems and procedures
FBPWHS2001	Participate in work health and safety processes

### Elective Units

#### Group A Bottling and Packaging

FBPBPG2001	Operate the bottle supply process
FBPBPG2002	Operate the carton erection process
FBPBPG2003	Operate the carton packing process
FBPBPG2004	Operate the palletising process
FBPBPG2005	Operate the electronic coding process
FBPBPG2006	Operate the bottle capsuling process
FBPBPG2007	Operate manual bottling and packaging processes
FBPBPG2008	Perform basic packaging tests and inspections

#### Group B Cellar Door

FBPCDS2001	Conduct a standard product tasting
FBPCDS2002	Provide and present wine tourism information
FBPCDS2003	Sell cellar door products and services
FBPCDS2004	Perform cellar door stock control procedure
FBPCDS3001	Conduct winery and site tours
FBPWIN2003	Conduct sensory evaluation of wine

SITHFAB002	Provide responsible service of alcohol
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### Group C Cellar Operations

FBPCEL2001	Perform oak handling activities
FBPCEL2002	Perform fermentation operations
FBPCEL2003	Operate the ion exchange process
FBPCEL2005	Perform must draining operations
FBPCEL2006	Operate the crushing process
FBPCEL2007	Prepare and make additions and finings
FBPCEL2008	Carry out inert gas handling operations
FBPCEL2009	Carry out transfer operations
FBPCEL2010	Prepare and wax tanks

### Group D Laboratory

MSL912001	Work within a laboratory or field workplace (induction)
MSL922001	Record and present data
MSL943004	Participate in laboratory or field workplace safety
MSL952001	Collect routine site samples
MSL952002	Handle and transport samples or equipment
MSL972001	Conduct routine site measurements
MSL973013	Perform basic tests

### Group E Viticulture

An asterisk (\*) next to the unit code indicates that there are prerequisite requirements which must be met when packaging the qualification. Please refer to the Prerequisite requirements table for details.

AHCCHM201	Apply chemicals under supervision
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AHCIRG215	Assist with low volume irrigation operations
AHCIRG217	Assist with pressurised irrigation operations
AHCMOM202	Operate tractors
AHCSOL202	Assist with soil or growing media sampling and testing
FBPVIT2001	Bench graft vines
FBPVIT2002	Carry out potting operations
FBPVIT2003	Hand prune vines
FBPVIT2004	Pick grapes by hand
FBPVIT2005	Maintain callusing environment
FBPVIT2006	Obtain and process rootlings
FBPVIT2007	Tend containerised nursery plants
FBPVIT2008	Train vines
FBPVIT2009	Plant vines by hand
FBPVIT2010	Take and process vine cuttings
FBPVIT2011	Operate vineyard equipment
FBPVIT2012	Identify and treat nursery plant disorders
FBPVIT2013	Recognise disorders and identify pests and diseases
FBPVIT2014	Perform pest control activities
FBPVIT2015	Carry out basic canopy maintenance
FBPVIT2016	Carry out hot water treatment
FBPVIT2017	Operate nursery cold storage facilities
FBPVIT2018*	Support mechanical harvesting operations

**Group F General**

AHCWRK209	Participate in environmentally sustainable work practices
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FBPOPR1010	Carry out manual handling tasks
FBPOPR2063	Clean equipment in place
FBPOPR2064	Clean and sanitise equipment
FBPOPR2065	Conduct routine maintenance
FBPOPR2066	Apply sampling procedures
FBPOPR2068	Operate a process control interface
FBPOPR2069	Use numerical applications in the workplace
FBPOPR2071	Provide and apply workplace information
FBPPPL2001	Participate in work teams and groups
FBPWHS2002	Identify and control risks in own work
FBPWIN2001	Perform effectively in a wine industry workplace
FBPWIN2002	Communicate wine industry information
HLTAID003	Provide first aid
RIIWHS202D	Enter and work in confined spaces
SITXCCS003	Interact with customers
TLID2003	Handle dangerous goods/hazardous substances
TLIG2007	Work in a socially diverse environment
TLIK2010	Use infotechnology devices in the workplace
TLILIC0003	Licence to operate a forklift truck

### Prerequisite requirements

Unit of competency	Prerequisite requirement
FBPVIT2018 Support mechanical harvesting operations	AHCMOM202 Operate tractors

## Qualification Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBP20518 Certificate II in Wine Industry Operations	FDF20411 Certificate II in Wine Industry Operations	Updated to meet Standards for Training Packages  The number of units to achieve the qualification reduced from 17 to 13  Changes packaging rules, core and elective units	No equivalent qualification

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>



# FBP20618 Certificate II in Sugar Milling Support

## Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package version 2.0.

## Qualification Description

This qualification describes the skills and knowledge required for entry level workers in the sugar milling industry. These workers carry out routine work, under supervision, in a range of areas including sugar processing, cane supply and transport, and milling services.

All work must be carried out to comply with workplace procedures, in accordance with state/territory food safety, health and safety and environmental codes, regulations and legislation that apply to the workplace.

No occupational licensing, legislative or certification requirements apply to this qualification at the time of publication.

## Entry Requirements

There are no entry requirements for this qualification.

## Packaging Rules

To achieve this qualification, competency must be demonstrated in:

- 16 units of competency:
  - 3 core units, plus
  - 13 elective units.

Elective units must ensure the integrity of the qualification's Australian Qualifications Framework (AQF) alignment and contribute to a valid, industry-supported vocational outcome. The electives are to be chosen as follows:

- at least 6 from the electives listed below
- up to 7 may be selected from this or any other currently endorsed Training Package or accredited course.

## Core Units

FBPOPR1003	Communicate workplace information
FBPWHS1001	Identify safe work practices
MSMENV272	Participate in environmentally sustainable work practices

### Elective Units

An asterisk (\*) next to the unit code indicates that there are prerequisite requirements which must be met when packaging the qualification. Please refer to the Prerequisite requirements table for details.

CPCCDO3011 A*	Perform dogging
CPCCRI3012A *	Perform basic rigging
CPCCSC2002A *	Erect and dismantle basic scaffolding
FBPOPR2034	Operate an evaporation process
FBPORR2068	Operate a process control interface
FBPSUG1004	Check a cane sample for extraneous matter
FBPSUG1005	Manually clean and maintain housekeeping standards
FBPSUG2001	Lay sleepers for cane rail systems
FBPSUG2002	Lay rails for cane rail systems
FBPSUG2003	Lay skeleton track for cane rail system
FBPSUG2004	Operate tamping equipment
FBPSUG2005*	Construct turnouts
FBPSUG2006	Collect and prepare samples
FBPSUG2007	Conduct cane weighbridge operations
FBPSUG2008	Operate a tipping station
FBPSUG2009	Operate an extraction station
FBPSUG2010	Operate a juice clarification process

FBPSUG2011	Operate a mud filtration process
FBPSUG2012	Chemically clean equipment
FBPSUG2013	Operate a pan station
FBPSUG2014	Operate a low grade fugal station
FBPSUG2015	Operate a high grade fugal station
FBPSUG2016	Operate a crystalliser station process
FBPSUG2017	Undertake simple fabrication
FBPSUG2019	Operate a bagasse fuel supply system
FBPSUG2020	Operate a coal fuel supply system
FBPSUG2021	Operate an ash separation system
FBPSUG2022	Operate a waste water treatment system
FBPSUG2023	Operate a cooling water system
FBPSUG2024	Perform standard tests on cane samples
FBPSUG2026	Perform general drilling operations
FBPSUG2027	Perform general lathe operations
FBPSUG2028	Perform general milling operations
FBPSUG3001	Drive a cane locomotive
MEM09002B	Interpret technical drawing
MEM12023A	Perform engineering measurements
MEM18001C	Use hand tools
MEM18002B	Use power tools/hand held operations
MEM18055B*	Dismantle, replace and assemble engineering components
MSMBLIC001	Licence to operate a standard boiler
RIICBM305D	Install pre-cast concrete bridge decks
RIIHAN305D	Operate a gantry or overhead crane

RIIMPO319E	Conduct backhoe/loader operations
TLID3035	Operate a boom type elevating work platform
TLID3036	Lift and move load using a mobile crane
TLILIC0003	Licence to operate a forklift truck
TLILIC0008	Licence to operate a non-slewing mobile crane (greater than 3 tonnes capacity)
TLILIC2014	Licence to drive a light rigid vehicle
TLILIC2015	Licence to drive a medium rigid vehicle
UEPOPL001	Licence to operate a steam turbine

### Prerequisite requirements

Note: Units listed in the *Prerequisite requirement* column that have their own prerequisite requirements are shown with an asterisk (\*)

Unit of competency	Prerequisite requirement
CPCCDO3011A Perform dogging	CPCCOHS2001A Apply OHS requirements, policies and procedures in the construction industry
CPCCRI3012A Perform basic rigging	CPCCDO3011A Perform dogging*
CPCCSC2002A Erect and dismantle basic scaffolding	CPCCOHS2001A Apply OHS requirements, policies and procedures in the construction industry
FBPSUG2005 Construct turnouts	FBPSUG2002 Lay rails for cane rail systems
MEM18055B Dismantle, replace and assemble engineering components	MEM09002B Interpret technical drawing MEM12023A Perform engineering measurements MEM18001C Use hand tools MEM18002B Use power tools/hand held operations

## Qualification Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBP20618 Certificate II in Sugar Milling Support	FDF21012 Certificate II in Sugar Milling Industry Operations	Updated to meet the Standards for Training Packages  Title change to better reflect job outcomes  Changes to core and electives  Imported units updated in core and elective list.	Equivalent qualification

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## FBP30117 Certificate III in Food Processing

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package version 1.0.

### Qualification Description

This qualification describes the skills and knowledge for food processing workers employed in the following sectors:

- grain processing (including stock feed, animal feeds, milling wheat, barley, oats and flour milling)
- baking (including large scale production of cakes, pastry, bread, biscuits and plant baking)
- retail baking
- beverages (including juices, soft drinks, cordials, aerated and still waters, energy drinks and other modified beverages, such as vitamin and antioxidant beverages, coffee, tea and ice)
- confectionery
- dairy processing
- fruit and vegetables
- grocery products and supplies (including honey, jams, spreads, sauces, dressings, condiments, spices, edible oils and fats and pasta)
- poultry.

This qualification is designed for production related roles that require application of industry specific skills and knowledge across a range of processes, including some technical and problem solving ability. It caters for multi-skilled outcomes and roles that include team leader functions within the production environment. All work must be carried out to comply with workplace procedures, in accordance with State/Territory food safety, work health and safety and environmental codes, regulations and legislation that apply to the workplace.

No occupational licensing, legislative or certification requirements apply to this qualification at the time of publication.

**^ From 1 July 2022 the elective unit HLTAID003 must no longer be delivered and will be replaced in the Packaging Rules by the unit HLTAID011 - for more information see: <https://asqa.gov.au/news-events/news/reminder-about-superseded-hlt-first-aid-units>**

## Entry Requirements

There are no entry requirements for this qualification.

## Packaging Rules

To achieve this qualification, competency must be demonstrated in:

- 17 units of competency:
  - 5 core units plus
  - 12 elective units.

Elective units must ensure the integrity of the qualification's Australian Qualifications Framework (AQF) alignment and contribute to a valid, industry-supported vocational outcome. The electives must include a minimum of 6 units beginning with the code FDF or FBP, and are to be chosen as follows:

- 1 must be selected from Group A
- 6 must be selected from Group B
- 5 elective units may be selected from:
  - Groups A, B or C
  - this Training Package or any other currently endorsed Training Package or accredited course.

## Core Units

An asterisk (\*) next to the unit code indicates that there are prerequisite requirements which must be met when packaging the qualification. Please refer to the Prerequisite requirements table for details.

FDFFS2001A	Implement the food safety program and procedures
FDFFS3001A*	Monitor the implementation of quality and food safety programs
FDFOHS3001A	Contribute to OHS processes
FDFOP2064A	Provide and apply workplace information
MSMENV272	Participate in environmentally sustainable work practices

## Elective Units

An asterisk (\*) next to the unit code indicates that there are prerequisite requirements which must be met when packaging the qualification. Please refer to the Prerequisite requirements table for details.

### Group A

FDFOP3003A	Operate interrelated processes in a production system
FDFOP3004A	Operate interrelated processes in a packaging system

### Group B – Sector specialist and cross sector units

AHCPHT401	Assess olive oil for style and quality
AMPP301	Operate a poultry carcass delivery system
AMPP302	Debone and fillet poultry product (manually)
FBPCHE3001	Conduct cheese making operations
FBPCHE3002	Carry out processes for a range of artisan cheeses
FBPFAV3001	Conduct chemical wash for fresh produce
FBPFAV3002	Program fresh produce grading equipment
FBPGRA2011*	Receive grain for malting
FBPGRA2012*	Prepare malted grain
FBPGRA2013	Blend and dispatch malt
FBPGRA3001	Work with micronutrients or additions in stockfeed manufacturing processes
FBPGRA3002	Apply knowledge of animal nutrition principles to stockfeed product
FBPGRA3003	Lead flour milling shift operations
FBPGRA3004	Control mill processes and performance
FBPOPR2003	Prepare and monitor beer yeast propagation processes
FBPOPR2004	Operate a beer packaging process
FBPOPR2005	Operate a beer filling process



FBPOPR2011	Identify key stages and beer production equipment in a brewery
FBPOPR2013*	Operate a bright beer tank process
FBPOPR2015*	Operate a beer filtration process
FBPOPR2016*	Operate a beer maturation process
FBPOPR2030*	Operate a brewery fermentation process
FBPOPR2061*	Operate a wort production process
FBPOPR3001*	Control contaminants and allergens in the workplace
FBPOPR3002*	Prepare food products using basic cooking methods
FBPOPR3003	Identify cultural, religious and dietary considerations for food production

### Cross sector units

BSBSMB405	Monitor and manage small business operations
BSBSMB407	Manage a small team
FBPPPL3001	Support and mentor individuals and groups
FBPPPL3002	Establish compliance requirements for work area
FDFOP2061A	Use numerical applications in the workplace
FDFOP3002A	Set up a production or packaging line for operation
FDFPPL3001A	Participate in improvement processes
FDFPPL3002A	Report on workplace performance
FDFPPL3004A	Lead work teams and groups
FDFPPL3005A *	Participate in an audit process
FDFTEC3001A *	Participate in a HACCP team
FDFTEC3002A	Implement the pest prevention program

FDFTEC3003A	Apply raw materials, ingredient and process knowledge to production problems
MEM13003B	Work safely with industrial chemicals and materials
MSL973001	Perform basic tests
MSMENV472	Implement and monitor environmentally sustainable work practices
MSMSUP303	Identify equipment faults
MSMSUP330	Develop and adjust a production schedule
MSS403011	Facilitate implementation of competitive systems and practices
MSS403013	Lead team culture improvement
MSTGN3007	Monitor and operate trade waste process
SIRRINV002	Control stock
SIRXRSK002	Maintain store security
TLIA3015	Complete receipt/despatch documentation
TLIA3016	Use inventory systems to organise stock control
TLIA3018	Organise despatch operations
TLIA3019	Organise receipt operations
TLIA3026	Monitor storage facilities
TLIA3038	Control and order stock
TLIA3039	Receive and store stock

### Group C

BSBCUS301	Deliver and monitor a service to customers
BSBSMB301	Investigate micro business opportunities
BSBSMB401	Establish legal and risk management requirements of small business

BSBSMB402	Plan small business finances
BSBSMB403	Market the small business
BSBSMB404	Undertake small business planning
BSBSMB406	Manage small business finances
BSBWRT301	Write simple documents
FDFOHS2001A	Participate in OHS processes
FDFOP2063A	Apply quality systems and procedures
HLTAID003 ^ HLTAID011	Apply first aid <b>Provide First Aid (must be delivered from 1 July 2022)</b>
MEM09002B	Interpret technical drawing
MEM30011A	Set up basic pneumatic circuits
MSL922001	Record and present data
MSMPER300*	Issue work permits
MSMSUP310	Contribute to the development of workplace documentation
MSMSUP390	Use structured problem-solving tools
MSMSUP405	Identify problems in fluid power system
MSMSUP406	Identify faults in electronic control
MSS402001	Apply competitive systems and practices
MSS402002	Sustain process improvements
MSS402010	Manage the impact of change on own work
MSS402021	Apply Just in Time procedures
MSS402030	Apply cost factors to work practices
MSS402031	Interpret product costs in terms of customer requirements
MSS402040	Apply 5S procedures

MSS402050	Monitor process capability
MSS402051	Apply quality standards
MSS402060	Use planning software systems in operations
MSS402061	Use SCADA systems in operations
MSS402080	Undertake root cause analysis
MSS402081	Contribute to the application of a proactive maintenance strategy
MSS403002	Ensure process improvements are sustained
MSS403010	Facilitate change in an organisation implementing competitive systems and practices
MSS403021	Facilitate a Just in Time system
MSS403023	Monitor a levelled pull system of operations
MSS403040	Facilitate and improve implementation of 5S
MSS403041	Facilitate breakthrough improvements
MSS403051	Mistake proof an operational process
MSS404050*	Undertake process capability improvements
MSS404052	Apply statistics to operational processes
MSS404060	Facilitate the use of planning software systems in a work area or team
MSS404082	Assist in implementing a proactive maintenance strategy
MSS404083	Support proactive maintenance
TAEASS401	Plan assessment activities and processes
TAEASS402	Assess competence
TAEASS403	Participate in assessment validation
TAEDEL301	Provide work skill instruction

### Prerequisite requirements

Unit of competency	Prerequisite requirement
FBPGRA2011 Receive grain for malting	FBPGRA2010 Handle grain in a storage area
FBPGRA2012 Prepare malted grain	FBPGRA2010 Handle grain in a storage area
FBPOPR2013 Operate a bright beer tank process	FBPOPR2011 Identify key stages and beer production equipment in a brewery
FBPOPR2015 Operate a beer filtration process	FBPOPR2011 Identify key stages and beer production equipment in a brewery
FBPOPR2016 Operate a beer maturation process	FBPOPR2011 Identify key stages and beer production equipment in a brewery
FBPOPR2030 Operate a brewery fermentation process	FBPOPR2011 Identify key stages and beer production equipment in a brewery
FBPOPR2061 Operate a wort production process	FBPOPR2011 Identify key stages and beer production equipment in a brewery
FBPOPR3001 Control contaminants and allergens in the workplace	FDFFS2001A Implement the food safety program and procedures
FBPOPR3002 Prepare food products using basic cooking methods	FDFFS2001A Implement the food safety program and procedures
FDFFS3001A Monitor the implementation of quality and food safety programs	FDFFS2001A Implement the food safety program and procedures
FDFPPL3005A Participate in an audit process	FDFOHS2001A Participate in OHS processes FDFOP2063A Apply quality systems and procedures MSMENV272B Participate in environmentally sustainable work practices
FDFTEC3001A Participate in a HACCP team	FDFFS2001A Implement the food safety program and procedures
MSMPER300 Issue work permits	MSMWHS201 Conduct hazard analysis
MSS404050 Undertake process capability	MSS404052 Apply statistics to operational processes

improvements	
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## Qualification Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBP30117 Certificate III in Food Processing	FDF30111 Certificate III in Food Processing	Updated to meet Standards for Training Packages  Packaging rules clarified  Imported units updated or deleted	Equivalent qualification

## Links

Companion Volumes, including Implementation Guides, are available at VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## FBP30217 Certificate III in Plant Baking

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package version 1.0.

### Qualification Description

This qualification describes the skills and knowledge for workers in a production bakery, where large scale production and packaging of bread and other baked products is undertaken.

The qualification is designed for production related roles that require application of specific plant baking skills and knowledge across a range of processes, including some technical and problem solving ability. It caters for multi-skilled outcomes and roles that include team leader functions within the production environment.

All work must be carried out to comply with workplace procedures, in accordance with State/Territory food safety, work health and safety and environmental codes, regulations and legislation that apply to the workplace.

No occupational licensing, legislative or certification requirements are known to apply to this qualification at the time of publication.

### Entry Requirements

There are no entry requirements for this qualification.

### Packaging Rules

To achieve this qualification, competency must be demonstrated in:

- 17 units of competency:
  - 8 core units plus
  - 9 elective units.

Elective units must ensure the integrity of the qualification's Australian Qualification Framework (AQF) alignment and contribute to a valid, industry-supported vocational outcome. The electives are to be chosen as follows:

- 4 must be selected from Group A
- 5 may be selected from:

- Groups A or B
- elsewhere in this training package, any other currently endorsed training package or accredited course packaged at Certificate II (maximum 2 units), Certificate III or Certificate IV (maximum of 3 units) levels.

### Core Units

An asterisk (\*) next to the unit code indicates that there are prerequisite requirements which must be met when packaging the qualification. Please refer to the Prerequisite requirements table for details.

FBPPBK3001	Operate a dough mixing process
FBPPBK3002	Operate a final proof and baking process
FBPPBK3003	Operate a dough make up process
FDFFS2001A	Implement the food safety program and procedures
FDFFS3001A*	Monitor the implementation of quality and food safety programs
FDFOHS3001A	Contribute to OHS processes
FDFOP2064A	Provide and apply workplace information
MSMENV272	Participate in environmentally sustainable work practices

### Elective Units

An asterisk (\*) next to the unit code indicates that there are prerequisite requirements which must be met when packaging the qualification. Please refer to the Prerequisite requirements table for details.

#### Group A

BSBSMB405	Monitor and manage small business operations
BSBSMB407	Manage a small team
FBPOPR3001*	Control contaminants and allergens in the workplace
FBPPPL3001	Support and mentor individuals and groups
FBPPPL3002	Establish compliance requirements for work area



FDFOP2061A	Use numerical applications in the workplace
FDFOP3002A	Set up a production or packaging line for operation
FDFOP3003A	Operate interrelated processes in a production system
FDFOP3004A	Operate interrelated processes in a packaging system
FDFPPL3001A	Participate in improvement processes
FDFPPL3002A	Report on workplace performance
FDFPPL3004A	Lead work teams and groups
FDFPPL3005A*	Participate in an audit process
FDFTEC3001A*	Participate in a HACCP team
FDFTEC3002A	Implement the pest prevention program
FDFTEC3003A	Apply raw materials, ingredient and process knowledge to production problems
MEM13003B	Work safely with industrial chemicals and materials
MSL973001	Perform basic tests
MSMENV472	Implement and monitor environmentally sustainable work practices
MSMSUP303	Identify equipment faults
MSMSUP330	Develop and adjust a production schedule
MSS403011	Facilitate implementation of competitive systems and practices
MSS403013	Lead team culture improvement
MSTGN3007	Monitor and operate trade waste
SIRRINV002	Control stock

SIRXRSK002	Maintain store security
TLIA3015	Complete receiptal/despatch documentation
TLIA3016	Use inventory systems to organise stock control
TLIA3018	Organise despatch operations
TLIA3019	Organise receiptal operations
TLIA3026	Monitor storage facilities
TLIA3038	Control and order stock
TLIA3039	Receive and store stock

### Group A

BSBCUS301	Deliver and monitor a service to customers
BSBSMB301	Investigate micro business opportunities
BSBSMB401	Establish legal and risk management requirements of small business
BSBSMB402	Plan small business finances
BSBSMB403	Market the small business
BSBSMB404	Undertake small business planning
BSBSMB406	Manage small business finances
BSBWRT301	Write simple documents
FDFOHS2001 A	Participate in OHS processes
FDFOP2063A	Apply quality systems and procedures
HLTAID003	Apply first aid
MSL922001	Record and present data
MSMPER300*	Issue work permits

MSMSUP310	Contribute to development of plant documentation
MSMSUP390	Use structured problem-solving tools
MSMSUP405	Identify problems in fluid power system
MSMSUP406	Identify problems in electronic control systems
MSS402001	Apply competitive systems and practices
MSS402002	Sustain process improvements
MSS402010	Manage the impact of change on own work
MSS402021	Apply Just in Time procedures
MSS402030	Apply cost factors to work practices
MSS402031	Interpret product costs in terms of customer requirements
MSS402040	Apply 5S procedures
MSS402050	Monitor process capability
MSS402051	Apply quality standards
MSS402060	Use planning software systems in operations
MSS402061	Use SCADA systems in operations
MSS402080	Undertake root cause analysis
MSS402081	Contribute to the application of a proactive maintenance strategy
MSS403002	Ensure process improvements are sustained
MSS403010	Facilitate change in an organisation implementing competitive systems and practices
MSS403021	Facilitate a Just in Time system
MSS403023	Monitor a manufacturing levelled pull system of operations
MSS403040	Facilitate and improve implementation of 5S
MSS403041	Facilitate breakthrough improvements

MSS403051	Mistake proof an operational process
MSS404050	Undertake process capability improvements
MSS404052	Apply statistics to operational processes
MSS404060	Facilitate the use planning software systems in a work area or team

### Prerequisite requirements

Unit of competency	Prerequisite requirement
FBPOPR3001 Control contaminants and allergens in the workplace	FDFFS2001 Implement the food safety program and procedures
FDFFS3001A Monitor the implementation of quality and food safety programs	FDFFS2001 Implement the food safety program and procedures
FDFPPL3005A Participate in an audit process	FDFOHS2001A Participate in OHS processes FDFOP2063A Apply quality systems and procedures MSMENV272B Participate in environmentally sustainable work practices
FDFTEC3001A Participate in a HACCP team	FDFFS2001A Implement the food safety program and procedures
MSMPER300 Issue work permits	MSMWHS201 Conduct hazard analysis

### Qualification Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBP30217 Certificate III in Plant Baking	FDF30310 Certificate III in Plant Baking	Updated to meet Standards for Training Packages	Equivalent qualification

## Links

Companion Volumes, including Implementation Guides, are available at VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# FBP30317 Certificate III in Cake and Pastry

## Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package version 1.0.

## Qualification Description

This qualification describes the skills and knowledge of a pastry cook who bakes cake, pastry and biscuit products working in a commercial baking environment.

All work must be carried out to comply with workplace procedures, in accordance with State/Territory food safety, and work health and safety, regulations and legislation that apply to the workplace.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

**^ From 1 July 2022 the elective unit HLTAID003 must no longer be delivered and will be replaced in the Packaging Rules by the unit HLTAID011** - for more information see: <https://asqa.gov.au/news-events/news/reminder-about-superseded-hlt-first-aid-units>

## Entry Requirements

There are no entry requirements for this qualification.

## Packaging Rules

To achieve this qualification, competency must be demonstrated in:

- 15 units of competency:
  - 11 core units plus
  - 4 elective units.

Elective units must ensure the integrity of the qualification's Australian Quality Framework (AQF) alignment and contribute to a valid, industry-supported vocational outcome. The electives are to be chosen as follows:

- 2 must be from those units listed in Group A and an additional 2 may be chosen from Group A
- up to 1 from those units listed in Group B

- up to 2 from those units listed in Group C.

### Core Units

FBPRBK2002	Use food preparation equipment to prepare fillings
FBPRBK3001	Produce laminated pastry products
FBPRBK3002	Produce non laminated pastry products
FBPRBK3008	Produce sponge cake products
FBPRBK3009	Produce biscuit and cookie products
FBPRBK3010	Produce cake and pudding products
FBPRBK3013	Schedule and produce cake and pastry production
FBPRBK3018	Produce basic artisan products
FDFFS2001A	Implement the food safety program and procedures
FDFOHS2001A	Participate in OHS processes
FDFOP2061A	Use numerical applications in the workplace

### Elective Units

An asterisk (\*) next to the unit code indicates that there are prerequisite requirements which must be met when packaging the qualification. Please refer to the Prerequisite requirements table for details.

### Group A

FBPRBK3003	Produce specialist pastry products
FBPRBK3004	Produce meringue products
FBPRBK3005	Produce basic bread products
FBPRBK4003*	Produce gateaux, tortes and entremets
SITXHRM001	Coach others in job skills

**Group B**

SIRRMER002	Merchandise food products
SIRXPDK001	Advise on products and services
SIRXSLS001	Sell to the retail customer

**Group C**

FBPOPR3002*	Prepare food products using basic cooking methods
FBPOPR3003	Identify cultural, religious and dietary considerations for food production
FBPRBK3016	Control and order bakery stock
FBPRBK4004	Develop baked products
FDFTEC3001A *	Participate in a HACCP team
HLTAID003 ^ HLTAID011	Provide first aid <b>Provide First Aid (must be delivered from 1 July 2022)</b>

**Prerequisite requirements**

Unit of competency	Prerequisite requirement
FBPRBK4003 Produce gateaux, tortes and entremets	FBPRBK3010 Produce cake and pudding products
FBPOPR3002 Prepare food products using basic cooking methods	FDFFS2001A Implement the food safety program and procedures
FDFTEC3001A Participate in a HACCP team	FDFFS2001A Implement the food safety program and procedures



## Qualification Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBP30317 Certificate III in Cake and Pastry	FDF30510 Certificate III in Retail Baking (Cake and Pastry)	Redesigned. Units added and removed from the core and electives	No equivalent qualification

## Links

Companion Volumes, including Implementation Guides, are available at VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## FBP30417 Certificate III in Bread Baking

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package version 1.0.

### Qualification Description

This qualification describes the skills and knowledge of a bread baker who bakes bread products working in a commercial baking environment.

All work must be carried out to comply with workplace procedures, in accordance with State/Territory food safety, and work health and safety, regulations and legislation that apply to the workplace.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

**^ From 1 July 2022 the elective unit HLTAID003 must no longer be delivered and will be replaced in the Packaging Rules by the unit HLTAID011** - for more information see: <https://asqa.gov.au/news-events/news/reminder-about-superseded-hlt-first-aid-units>

### Entry Requirements

There are no entry requirements for this qualification.

### Packaging Rules

To achieve this qualification, competency must be demonstrated in:

- 14 units of competency:
  - 9 core units plus
  - 5 elective units.

Elective units must ensure the integrity of the qualification's Australian Quality Framework (AQF) alignment and contribute to a valid, industry-supported vocational outcome. The electives are to be chosen as follows:

- 2 must be from those units listed in Group A and an additional 3 units may be chosen from Group A
- up to 1 from those units listed in Group B

- up to 2 from those units listed in Group C.

### Core Units

FBPRBK3005	Produce basic bread products
FBPRBK3006	Produce savoury bread products
FBPRBK3007	Produce specialty flour bread products
FBPRBK3012	Schedule and produce bread production
FBPRBK3014	Produce sweet yeast products
FBPRBK3018	Produce basic artisan products
FDFFS2001A	Implement the food safety program and procedures
FDFOHS2001A	Participate in OHS processes
FDFOP2061A	Use numerical applications in the workplace

### Elective Units

An asterisk (\*) next to the unit code indicates that there are prerequisite requirements which must be met when packaging the qualification. Please refer to the Prerequisite requirements table for details.

#### Group A

FBPRBK3008	Produce sponge cake products
FBPRBK3011 *	Produce frozen dough products
FBPRBK3017 *	Operate plant baking processes
FBPRBK4001 *	Produce artisan bread products
FBPRBK2002	Use food preparation equipment to prepare fillings
SITXHRM001	Coach others in job skills

#### Group B

SIRRMER002	Merchandise food products
SIRXPDK001	Advise on products and services
SIRXSLS001	Sell to the retail customer

### Group C

FBPOPR3002*	Prepare food products using basic cooking methods
FBPOPR3003	Identify cultural, religious and dietary considerations for food production
FBPRBK3016	Control and order bakery stock
FBPRBK4004	Develop baked products
FDFTEC3001A*	Participate in a HACCP team
HLTAID003 ^ <b>HLTAID011</b>	Provide first aid <b>Provide First Aid (must be delivered from 1 July 2022)</b>

### Prerequisite requirements

Unit of competency	Prerequisite requirement
FBPRBK3011 Produce frozen dough products	FBPRBK3005 Produce basic bread products
FBPRBK3017 Operate plant baking processes	FBPRBK3005 Produce basic bread products
FBPRBK4001 Produce artisan bread products	FBPRBK3005 Produce basic bread products
FBPOPR3002 Prepare food products using basic cooking methods	FDFFS2001A Implement the food safety program and procedures
FDFTEC3001A Participate in a HACCP team	FDFFS2001 Implement the food safety program and procedures
FBPRBK3011 Produce frozen dough products	FBPRBK3005 Produce basic bread products

## Qualification Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBP30417 Certificate III in Bread Baking	FDF30610 Certificate III in Retail Baking (Bread)	Redesigned. Units added and removed from the core and electives	No equivalent qualification

## Links

Companion Volumes, including Implementation Guides, are available at VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## FBP30517 Certificate III in Baking

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package version 1.0.

### Qualification Description

This qualification describes the skills and knowledge of a baker who bakes bread, cake, pastry and biscuit products working in a commercial baking environment.

All work must be carried out to comply with workplace procedures, in accordance with State/Territory food safety, and work health and safety, regulations and legislation that apply to the workplace.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

**^ From 1 July 2022 the elective unit HLTAID003 must no longer be delivered and will be replaced in the Packaging Rules by the unit HLTAID011 - for more information see:** <https://asqa.gov.au/news-events/news/reminder-about-superseded-hlt-first-aid-units>

### Entry Requirements

There are no entry requirements for this qualification.

### Packaging Rules

To achieve this qualification, competency must be demonstrated in:

- 19 units of competency:
  - 15 core units plus
  - 4 elective units.

Elective units must ensure the integrity of the qualification's Australian Quality Framework (AQF) alignment and contribute to a valid, industry-supported vocational outcome. The electives are to be chosen as follows:

- 2 must be from those units listed in Group A and an additional 2 may be chosen from Group A
- up to 1 from those units listed in Group B

- up to 2 from those units listed in Group C.

### Core Units

FBPRBK2002	Use food preparation equipment to prepare fillings
FBPRBK3001	Produce laminated pastry products
FBPRBK3002	Produce non laminated pastry products
FBPRBK3005	Produce basic bread products
FBPRBK3006	Produce savoury bread products
FBPRBK3007	Produce specialty flour bread products
FBPRBK3008	Produce sponge cake products
FBPRBK3009	Produce biscuit and cookie products
FBPRBK3010	Produce cake and pudding products
FBPRBK3014	Produce sweet yeast products
FBPRBK3015	Schedule and produce bakery production
FBPRBK3018	Produce basic artisan products
FDFFS2001A	Implement the food safety program and procedures
FDFOHS2001A	Participate in OHS processes
FDFOP2061A	Use numerical applications in the workplace

### Elective Units

An asterisk (\*) next to the unit code indicates that there are prerequisite requirements which must be met when packaging the qualification. Please refer to the Prerequisite requirements table for details.

### Group A

FBPRBK3003	Produce specialist pastry products
FBPRBK3004	Produce meringue products
FBPRBK3011*	Produce frozen dough products

FBPRBK3017*	Operate plant baking processes
FBPRBK4001*	Produce artisan bread products
FBPRBK4003*	Produce gateaux, tortes and entremets
SITXHRM001	Coach others in job skills

### Group B

SIRRMER002	Merchandise food products
SIRXPDK001	Advise on products and services
SIRXSLS001	Sell to the retail customer

### Group C

FBPOPR3002*	Prepare food products using basic cooking methods
FBPOPR3003	Identify cultural, religious and dietary considerations for food production
FBPRBK3016	Control and order bakery stock
FBPRBK4004	Develop baked products
FDFTEC3001A *	Participate in a HACCP team
HLTAID003 ^ HLTAID011	Provide first aid <b>Provide First Aid (must be delivered from 1 July 2022)</b>

### Prerequisite requirements

Unit of competency	Prerequisite requirement
FBPOPR3002 Prepare food products using basic cooking methods	FDFFS2001A Implement the food safety program and procedures
FBPRBK3011 Produce frozen	FBPRBK3005 Produce basic bread products



dough products	
FBPRBK3017 Operate plant baking processes	FBPRBK3005 Produce basic bread products
FBPRBK4001 Produce artisan bread products	FBPRBK3005 Produce basic bread products
FBPRBK4003 Produce gateaux, tortes and entremets	FBPRBK3010 Produce cake and pudding products
FDFTEC3001A Participate in a HACCP team	FDFFS2001A Implement the food safety program and procedures

## Qualification Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBP30517 Certificate III in Baking	FDF30710 Certificate III in Retail Baking (Combined)	Redesigned. Units added and removed from the core and electives	No equivalent qualification

## Links

Companion Volumes, including Implementation Guides, are available at VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## FBP30617 Certificate III in Food Processing (Sales)

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package version 1.0.

### Qualification Description

This qualification covers the sales specialisations within the food processing industry and targets those workers that provide sales advice and services for food manufacturing or retail food processing contexts.

The qualification is designed for roles that require the ability to perform a range of sales activities independently and as a team member, applying food processing technical skills and knowledge and problem solving. All work must be carried out to comply with workplace procedures, in accordance with State/Territory food safety, work health and safety and environmental codes, regulations and legislation that apply to the workplace.

No occupational licensing, legislative or certification requirements apply to this qualification at the time of publication.

**^ From 1 July 2022 the elective unit HLTAID003 must no longer be delivered and will be replaced in the Packaging Rules by the unit HLTAID011 - for more information see:** <https://asqa.gov.au/news-events/news/reminder-about-superseded-hlt-first-aid-units>

### Entry Requirements

There are no entry requirements for this qualification.

### Packaging Rules

To achieve this qualification, competency must be demonstrated in:

- 14 units of competency:
  - 6 core units plus
  - 8 elective units.

Elective units must ensure the integrity of the qualification's Australian Qualifications Framework (AQF) alignment and contribute to a valid, industry-supported vocational outcome. The electives are to be chosen as follows:

- 2 must be selected from Group A
- 2 must be selected from Group B
- the remaining 4 units may be selected from:
  - Groups A, B or C
  - elsewhere in this training package, any other currently endorsed training package or accredited course at Certificate II (maximum of two units), Certificate III or Certificate IV (maximum of three units) levels.

### Core Units

An asterisk (\*) next to the unit code indicates that there are prerequisite requirements which must be met when packaging the qualification. Please refer to the Prerequisite requirements table for details.

FDFFS2001A	Implement the food safety program and procedures
FDFFS3001A*	Monitor the implementation of quality and food safety programs
FDFOHS3001A	Contribute to OHS processes
FDFOP2061A	Use numerical applications in the workplace
FDFOP2064A	Provide and apply workplace information
MSMENV272	Participate in environmentally sustainable work practices

### Elective Units

An asterisk (\*) next to the unit code indicates that there are prerequisite requirements which must be met when packaging the qualification. Please refer to the Prerequisite requirements table for details.

### Group A

BSBCUS301	Deliver and monitor a service to customers
BSBMKG501	Identify and evaluate marketing opportunities
BSBMKG507	Interpret market trends and developments
BSBMKG514	Implement and monitor marketing activities

BSBSMB301	Investigate micro business opportunities
BSBSMB401	Establish legal and risk management requirements of small business
BSBSMB402	Plan small business finances
BSBSMB403	Market the small business
BSBSMB404	Undertake small business planning
BSBSMB405	Monitor and manage small business operations
BSBSMB406	Manage small business finances
BSBSMB407	Manage a small team
SIRRINV002	Control stock
SIRXRSK002	Maintain store security

## Group B – Sector specialist and cross sector elective units

### Sector specialist units

AHCPHT401	Assess olive oil for style and quality
AMPP301	Operate a poultry carcase delivery system
AMPP302	Debone and fillet poultry product (manually)
AMPR322	Prepare and produce value-added products
FBPFAV3001	Conduct chemical wash for fresh produce
FBPFAV3002	Program fresh produce grading equipment
FBPGRA3001	Work with micronutrients or additions in stockfeed manufacturing processes
FBPGRA3002	Apply knowledge of animal nutrition principles to stockfeed product
FBPOPR3001 *	Control contaminants and allergens in the work area
FBPOPR3002 *	Prepare food products using basic cooking methods

FBPOPR3003	Identify cultural, religious and dietary considerations for food production
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### Cross sector units

FBPPPL3001	Support and mentor individuals and groups
FBPPPL3002	Establish compliance requirements for work area
FDFOP3002A	Set up a production or packaging line for operation
FDFPPL3001 A	Participate in improvement processes
FDFPPL3002 A	Report on workplace performance
FDFPPL3004 A	Lead work teams and groups
FDFPPL3005 A*	Participate in an audit process
FDFTEC3001 A*	Participate in a HACCP team
FDFTEC3002 A	Implement the pest prevention program
FDFTEC3003 A	Apply raw materials, ingredient and process knowledge to production problems
MEM13003B	Work safely with industrial chemicals and materials
MSL973001	Perform basic tests
MSMENV472	Implement and monitor environmentally sustainable work practices
MSMSUP303	Identify equipment faults
MSMSUP330	Develop and adjust a production schedule
MSS403011	Facilitate implementation of competitive systems and practices
MSS403013	Lead team culture improvement

MSTGN3007	Monitor and operate trade waste
TLIA3015	Complete receiptal/despatch documentation
TLIA3016	Use inventory systems to organise stock control
TLIA3018	Organise despatch operations
TLIA3019	Organise receiptal operations
TLIA3026	Monitor storage facilities
TLIA3038	Control and order stock
TLIA3039	Receive and store stock

### Group C

BSBWRT301	Write simple documents
FDFOHS2001 A	Participate in OHS processes
FDFOP2063A	Apply quality systems and procedures
HLTAID003 ^ <b>HLTAID011</b>	Apply first aid <b>Provide First Aid (must be delivered from 1 July 2022)</b>
MSL922001	Record and present data
MSMPER300*	Issue work permits
MSMSUP310	Contribute to the development of workplace documentation
MSMSUP390	Use structured problem-solving tools
MSMSUP405	Identify problems in fluid power system
MSMSUP406	Identify problems in electronic control
MSS402001	Apply competitive systems and practices
MSS402002	Sustain process improvements
MSS402010	Manage the impact of change on own work

MSS402021	Apply Just in Time procedures
MSS402030	Apply cost factors to work practices
MSS402031	Interpret product costs in terms of customer requirements
MSS402040	Apply 5S procedures
MSS402050	Monitor process capability
MSS402051	Apply quality standards
MSS402060	Use planning software systems in operations
MSS402061	Use SCADA systems in operations
MSS402080	Undertake root cause analysis
MSS402081	Contribute to the application of a proactive maintenance strategy
MSS403002	Ensure process improvements are sustained
MSS403010	Facilitate change in an organisation implementing competitive systems and practices
MSS403021	Facilitate a Just in Time system
MSS403023	Monitor a levelled pull system of operations
MSS403040	Facilitate and improve implementation of 5S
MSS403041	Facilitate breakthrough improvements
MSS403051	Mistake proof an operational process
MSS404050	Undertake process capability improvements
MSS404052	Apply statistics to operational processes
MSS404060	Facilitate the use of planning software systems in a work area or team
MSS404082	Assist in implementing a proactive maintenance strategy
MSS404083	Support proactive maintenance
TAEASS401	Plan assessment activities and processes

TAEASS402	Assess competence
TAEASS403	Participate in assessment validation
TAEDEL301	Provide work skill instruction

### Prerequisite requirements

Unit of competency	Prerequisite requirement
FBPOPR3001 Control contaminants and allergens in the work area	FDFFS2001A Implement the food safety program and procedures
FBPOPR3002 Prepare food products using basic cooking methods	FDFFS2001A Implement the food safety program and procedures
FDFFS3001A Monitor the implementation of quality and food safety programs	FDFFS2001A Implement the food safety program and procedures
FDFPPL3005A Participate in an audit process	FDFOHS2001A Participate in OHS processes FDFOP2063A Apply quality systems and procedures MSMENV272B Participate in environmentally sustainable work practices
FDFTEC3001A Participate in a HACCP team	FDFFS2001A Implement the food safety program and procedures
MSMPER300 Issue work permits	MSMWHS201 Conduct hazard analysis

### Qualification Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBP30617 Certificate III in Food Processing (Sales)	FDF30910 Certificate III in Food Processing (Sales)	Updated to meet Standards for Training Packages Packaging rules clarified	Equivalent qualification



Code and title current version	Code and title previous version	Comments	Equivalence status
		Imported units updated or deleted	

## Links

Companion Volumes, including Implementation Guides, are available at VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## FBP30717 Certificate III in Rice Processing

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceuticals Training Package version 1.0.

### Qualification Description

The qualification provides a general vocational outcome in rice production work that enables individuals to mill process and package rice grain products, mill rice flour and manufacture rice consumer products on an industrial scale.

Individuals with this qualification perform tasks involving a broad range of skills that are applied in a wide variety of contexts, which will involve discretion and judgement in selecting and operating equipment, coordinating resources and applying contingency measures during work.

Job roles vary across different industry sectors and may include:

- Rice miller
- Rice flour miller
- Rice production worker
- Rice packaging worker
- Rice food manufacturing worker.

All work must be carried out to comply with workplace procedures, in accordance with State/Territory food safety, and work health and safety, regulations and legislation that apply to the workplace.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

### Entry Requirements

There are no entry requirements for this qualification.

## Packaging Rules

### Packaging Rules

To achieve this qualification, competency must be demonstrated in:

- 15 units of competency made up of:
  - 8 core units plus
  - 7 elective units

Elective units must ensure the integrity of the qualification's Australian Quality Framework (AQF) alignment and contribute to a valid, industry-supported vocational outcome. The electives are to be chosen as follows:

- 2 must be from group A
- 3 must be from any in group B, C, D and E
- 2 from the remaining units listed in groups A, B, C, D, E or F or any currently endorsed Training Package or accredited course packaged at Certificate III or Certificate IV, with no more than 1 unit packaged at Certificate IV.

Any combination of electives that meets the packaging rules can be selected for the award of the Certificate III in Rice Processing.

Where appropriate, electives may be packaged to provide a qualification with a specialisation area as follows:

- A minimum of 3 electives from Group B must be selected for award of the *Certificate III in Rice Processing (Rice Miller)*
- A minimum of 3 electives from Group C must be selected for award of the *Certificate III in Rice Processing (Rice Flour Miller)*
- A minimum of 3 electives from Group D must be selected for award of the *Certificate III in Rice Processing (Rice Product Manufacturer)*
- A minimum of 3 electives from Group E must be selected for award of the *Certificate III in Rice Processing (Rice Receival and Storage)*

### Core Units

FDFFS2001A	Implement the food safety program and procedures
FDFFS3001A*	Monitor the implementation of quality and food safety programs
FDFOHS3001A	Contribute to OHS processes
FDFOP2063A	Apply quality systems and procedures

FDFPPL3004 A	Lead work teams and groups
FDFSUG308A	Analyse and convey workplace information
FSKNUM31	Apply a wide range of mathematical calculations for work
MSL973001	Perform basic tests

## Elective Units

### Group A Rice Processing

FDFOP3002A	Set up a production or packaging line for operation
FDFOP3003A	Operate interrelated processes in a production system
FDFOP3004A	Operate interrelated processes in a packaging system
FDFTEC3003 A	Apply raw materials, ingredient and process knowledge to production problems

### Group B Rice Miller

FBPGRA3006	Implement a paddy receival and grain cleaning process
FBPGRA3007	Implement a rice blending and cleaning process
FBPGRA3008	Implement a rice colour sorting process
FBPGRA3011	Implement a rice grading process
FBPGRA3012	Implement a rice hulling and separation process
FBPGRA3015	Implement a rice whitening process

### Group C Rice Flour Miller

FBPGRA3003	Lead flour milling shift operations
FBPGRA3004	Control mill processes and performance
FBPGRA3009	Implement a rice flour break process
FBPGRA3010	Implement a rice flour grading process

FBPGRA3016	Implement a rice flour blending process
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### Group D Rice Product Manufacturer

FBPGRA3013	Implement a rice product manufacturing process
FBPOPR2044	Operate a retort process
FBPPBK2006	Operate a griddle production process
FBPPPL3002	Establish compliance requirements for work area
FDFBP3002A	Operate the labelling process
FDFPPL3001 A	Participate in improvement processes

### Group E Rice Receival and Storage

FBPGRA3005	Conduct rice harvest receivals
FBPGRA3014	Implement a rice seed preparation and storage system
FDFTEC3002 A	Implement the pest prevention program

### Group F General Electives

AHCBAC204	Prepare grain storages
FBPGRA2009	Operate a pelleting process
FBPGRA2010	Handle grain in a storage area
FBPGRA2014	Operate a rice vitamin enrichment process
FBPOPR2028	Operate a mixing or blending process
FBPOPR2036	Operate an extrusion process
FBPOPR2041	Operate a mixing or blending and cooking process
FBPOPR2042	Operate a drying process
FBPPPL4001*	Manage people in the work area

FBPPPL4002	Plan and coordinate production equipment maintenance
FBPPPL4003	Schedule and manage production
FBPPPL4004*	Optimise a work process
FDFSUG218A	Operate a boiler - basic
FDFOP2015A *	Apply principles of statistical process control
FDFOP2030A	Operate a process control interface
FDFPPL3001 A	Participate in improvement processes
FDFPPL3002 A	Report on workplace performance
FDFPPL3005 A*	Participate in an audit process
FDFTEC3001 A*	Participate in a HACCP team
FDFTEC4003 A*	Control food contamination and spoilage
FDFTEC4004 A*	Apply basic process engineering principles to food processing
FDFTEC4005 A	Apply an understanding of food additives
FDFTEC4008 A	Apply principles of food packaging
MSMENV272	Participate in environmentally sustainable work practices.
MSMPER200	Work in accordance with an issued permit
MSMPER201	Monitor and control work permits
MSMPER300*	Issue work permits
MSMSUP303	Identify equipment faults
PMASUP420	Minimise environmental impact of process

SITXHRM001	Coach others in job skills
TLIA3016	Use inventory systems to organise stock control
TLIA3038	Control and order stock
TLIA3039	Receive and store stock
TLID2003	Handle dangerous goods/hazardous substances
TLIJ2003	Apply grain protection measures
TLILIC2001	Licence to operate a forklift truck

### Prerequisite requirements

Unit of competency	Prerequisite requirement
FBPPPL4001 Manage people in the work area	FBPPPL3001 Support and mentor individuals and groups
FBPPPL4004 Optimise a work process	FDFPPL3001A Participate in improvement processes
FDFFS3001A Monitor the implementation of quality and food safety programs	FDFFS2001A Implement the food safety program and procedures
FDFOP2015A Apply principles of statistical process control	FDFOP2061A Use numerical applications in the workplace
FDFPPL3005A Participate in an audit process	FDFOHS2001A Participate in OHS processes FDFOP2063A Apply quality systems and procedures MSMENV272B Participate in environmentally sustainable work practices
FDFTEC3001A Participate in a HACCP team	FDFFS2001A Implement the food safety program and procedures
FDFTEC4003A Control food contamination and spoilage	FDFFS3001A Monitor the implementation of quality and food safety programs*

FDFTEC4004A Apply basic process engineering principles to food processing	FDFOP2030A Operate a process control interface FDFTEC4007A Describe and analyse data using mathematical principles*
FDFTEC4007A Describe and analyse data using mathematical principles	FDFOP2015A Apply principles of statistical process control*
MSMPER300 Issue work permits	MSMWHS201 Conduct hazard analysis

## Qualification Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBP30717 Certificate III in Rice Processing	ZRG30100 Certificate III in Rice Processing	Redesigned qualification. Units added to core and electives. Four specialist streams created.	No equivalent qualification

## Links

Companion Volumes, including Implementation Guides, are available at VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>



# FBP30818 Certificate III in Pharmaceutical Manufacturing

## Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

## Qualification Description

This qualification describes the skills and knowledge for production and packaging roles carried out under broad supervision within pharmaceutical manufacturing environments. Individuals with this qualification perform tasks involving a broad range of skills that are applied in a wide variety of contexts, which will involve discretion and judgement in selecting and operating equipment, coordinating resources and applying contingency measures during work.

Work must comply with good manufacturing practice, health and safety and environmental regulations and legislation that apply to the workplace.

No occupational licensing, legislative or certification requirements apply to this qualification at the time of publication.

## Entry Requirements

There are no entry requirements for this qualification.

## Packaging Rules

To achieve this qualification, competency must be demonstrated in:

- 16 units of competency:
  - 5 core units, plus
  - 11 elective units.

Elective units must ensure the integrity of the qualifications' Australian Qualification Framework (AQF) alignment and contribute to a valid, industry-supported vocational outcome. The electives are to be chosen as follows:

- 5 must be from group A
- 4 must be from group B
- 2 from the remaining units listed in groups A or B, or any currently endorsed Training Package or accredited course.

**Core Units**

FBPPHM3001	Apply Good Manufacturing Practice requirements
FBPPHM3002	Operate a pharmaceutical production process
FBPPHM3003	Work in a controlled environment
FBPPHM3004	Clean and sanitise facilities and equipment
BSBWHS301	Maintain workplace safety

**Elective Units****Group A**

FBPOPR2028	Operate a mixing or blending process
FBPOPR3005	Operate interrelated processes in a production system
FBPOPR3006	Operate interrelated processes in a packaging system
FBPPHM3005	Operate a concentration process
FBPPHM3006	Operate an extraction process
FBPPHM3007	Operate a separation process using chromatography
FBPPHM3008	Operate an aseptic fill and seal process
FBPPHM3009	Operate an aseptic form, fill and seal process
FBPPHM3010	Operate a compressing process
FBPPHM3011	Dispense pharmaceutical raw materials
FBPPHM3012	Operate an encapsulation process
FBPPHM3013	Operate a granulation process
FBPPHM3014	Operate a liquid manufacturing process
FBPPHM3015	Operate a tablet coating process
FBPPHM3016	Operate a sterilisation process using an autoclave
FBPPHM3017	Coordinate a label store

MSL922001	Record and present data
MSS402061	Use SCADA systems in operations

**Group B**

BSBWRT301	Write simple documents
FBPOPR2070	Apply quality systems and procedures
FBPOPR3004	Set up a production or packaging line for operation
FBPPPL3003	Participate in improvement processes
FBPPPL3005	Participate in audit processes
FBPPPL3006	Report on workplace performance
FBPTEC3001	Apply raw materials, ingredient and process knowledge to production problems
FBPWHS2001	Participate in work health and safety processes
HLTAID003	Provide first aid
MSL973013	Perform basic tests
MSMENV272	Participate in environmentally sustainable work practices
MSMPMC400	Carry out stock control
MSMSUP303	Identify equipment faults
MSMSUP310	Contribute to the development of workplace documentation
MSMSUP390	Use structured problem-solving tools
MSS402021	Apply Just in Time procedures
MSS403085	Ensure process improvements are sustained
SIRCDIS006	Maintain dispensary stock
TLIA2009	Complete and check import/export documentation
TLIA3015	Complete receiptal/despatch documentation

TLIA3016	Use inventory systems to organise stock control
TLIA3018	Organise despatch operations
TLIA3038	Control and order stock
TLIA3039	Receive and store stock
TLIA4025	Regulate temperature controlled stock

## Qualification Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBP30818 Certificate III in Pharmaceutical Manufacturing	FDF30210 Certificate III in Pharmaceutical Manufacturing	Updated to meet Standards for Training Packages  Changes to packaging rules, core and elective units	No equivalent qualification

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# FBP30918 Certificate III in Wine Industry Operations

## Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package version 2.0.

## Qualification Description

This qualification describes the skills and knowledge required for operational workers in the wine industry. These workers carry out skilled tasks under broad direction in a range of sectors, including:

- procedural and technical tasks in bottling and packaging, cellar operations and laboratory testing
- customer service tasks in cellar door
- tasks related to wine grape growing, harvesting and post-harvesting.

This qualification offers a general outcome as well as sector-specific specialisations.

All work must be carried out to comply with workplace procedures, in accordance with state/territory food safety, and work health and safety, regulations and legislation that apply to the workplace.

No occupational licensing, legislative or certification requirements apply to this qualification at the time of publication.

## Entry Requirements

There are no entry requirements for this qualification.

## Packaging Rules

To achieve this qualification, competency must be demonstrated in:

- 19 units of competency:
  - 4 core units, plus
  - 15 elective units.

Elective units must ensure the integrity of the qualification's Australian Qualification Framework (AQF) alignment and contribute to a valid, industry-supported vocational outcome. The electives are to be chosen as follows:

- up to 15 from the elective units listed below, with no more than 6 units coded with an AQF level 2 indicator or that reflect AQF level 2 outcomes
- up to 4 units may be selected from any currently endorsed Training Package or accredited course that are coded with an AQF indicator above level 2 or reflect outcomes above AQF level 2.

Any combination of electives that meets the packaging rules can be selected for the award of the *Certificate III in Wine Industry Operations*.

Where appropriate, electives may be packaged to provide a qualification with a specialisation area as follows.

- For the award of the *Certificate III in Wine Industry Operations (Bottling and Packaging)* at least 6 units from Group A Bottling and Packaging must be chosen.
- For the award of the *Certificate III in Wine Industry Operations (Cellar Door)* at least 6 units from Group B Cellar Door must be chosen.
- For the award of the *Certificate III in Wine Industry Operations (Cellar Operations)* at least 6 units from Group C Cellar Operations must be chosen.
- For the award of the *Certificate III in Wine Industry Operations (Laboratory)* at least 6 units from Group D Laboratory must be chosen.
- For the award of the *Certificate III in Wine Industry Operations (Viticulture)* at least 6 units from Group E Viticulture must be chosen.

### Core Units

BSBWHS301	Maintain workplace safety
FBPFSY2001	Implement the food safety program and procedures
FBPPPL3003	Participate in improvement processes
FBPPPL3006	Report on workplace performance

### Elective Units

#### Group A Bottling and Packaging

FBPBPG2001	Operate the bottle supply process
FBPBPG2002	Operate the carton erection process
FBPBPG2003	Operate the carton packing process

FBPBPG2004	Operate the palletising process
FBPBPG2005	Operate the electronic coding process
FBPBPG2006	Operate the bottle capsuling process
FBPBPG2008	Perform basic packaging tests and inspections
FBPBPG3001	Operate the bottle filling process
FBPBPG3002	Operate the labelling process
FBPBPG3003	Operate the softpack filling process
FBPBPG3004	Operate the bottle sealing process
FBPBPG3005	Operate the tirage and transfer process
FBPBPG3006	Operate traditional sparkling wine processes
FBPBPG3007	Perform packaging equipment changeover
FBPOPR3004	Set up a production or packaging line for operation
FBPOPR3006	Operate interrelated processes in a packaging system

### Group B Cellar Door

An asterisk (\*) next to the unit code indicates that there are prerequisite requirements which must be met when packaging the qualification. Please refer to the Prerequisite requirements table for details.

FBPCDS2001	Conduct a standard product tasting
FBPCDS2002	Provide and present wine tourism information
FBPCDS3001	Conduct winery and site tours
FBPCDS3002	Plan and deliver a wine tasting event
FBPCDS3003	Coordinate winery hospitality activities
FBPWIN2003	Conduct sensory evaluation of wine
FBPWIN3001*	Evaluate wines (advanced)
SIRXCEG004	Create a customer-centric culture

SIRXMKT003	Manage promotional activities
SITHFAB002	Provide responsible service of alcohol
SITHFAB012	Provide advice on Australian wines
SITHFAB013	Provide advice on imported wines

### Group C Cellar Operations

FBPCEL2001	Perform oak handling activities
FBPCEL2002	Perform fermentation operations
FBPCEL2003	Operate the ion exchange process
FBPCEL2004	Perform heat exchange operations
FBPCEL2007	Prepare and make additions and finings
FBPCEL2008	Carry out inert gas handling operations
FBPCEL2009	Carry out transfer operations
FBPCEL3001	Handle and store spirits
FBPCEL3002	Operate the continuous clarification by separation (flotation) process
FBPCEL3003	Operate the concentration process
FBPCEL3004	Operate an earth filtration process
FBPCEL3005	Operate the pressing process
FBPCEL3006	Operate the fine filtration process
FBPCEL3007	Operate clarification by separation (centrifugation) process
FBPCEL3008	Operate the rotary vacuum filtration process
FBPCEL3009	Operate the crossflow filtration process
FBPCEL3010	Operate the decanter process
FBPCEL3011	Operate the reverse osmosis process
FBPCEL3012	Perform de-aromatising, de-alcoholising or de-sulphuring



	operations
FBPCEL3013	Perform rectification (continuous still) operations
FBPCEL3014	Prepare and monitor wine cultures
FBPCEL3015	Perform first distillation (pot still brandy) operations
FBPCEL3016	Perform second distillation (pot still brandy) operations
FBPCEL3017	Perform single column lees stripping (continuous still brandy) operations
FBPCEL3018	Perform dual column distillation (continuous still brandy) operations
FBPWIN2003	Conduct sensory evaluation of wine

### Group D Laboratory

MSL904002	Perform standard calibrations
MSL924003	Process and interpret data
MSL924004	Use laboratory application software
MSL933008	Perform calibration checks on equipment and assist with its maintenance
MSL973013	Perform basic tests
MSL973014	Prepare working solutions
MSL973015	Prepare culture media
MSL973016	Perform aseptic techniques
MSL973019	Perform microscopic examination
MSL974017	Prepare, standardise and use solutions

### Group E Viticulture

An asterisk (\*) next to the unit code indicates that there are prerequisite requirements which must be met when packaging the qualification. Please refer to the Prerequisite requirements table for details.

AHCCHM304	Transport and store chemicals
AHCCHM307	Prepare and apply chemicals to control pest, weeds and diseases
AHCIRG325	Operate irrigation technology
AHCIRG326	Operate irrigation injection equipment
AHCIRG327	Implement an irrigation schedule
AHCIRG331	Install pressurised irrigation systems
AHCIRG333	Maintain pressurised irrigation systems
AHCMOM202	Operate tractors
AHCPCM301	Implement a plant nutrition program
AHCSOL401	Sample soils and interpret results
FBPVIT2003	Hand prune vines
FBPVIT2011	Operate vineyard equipment
FBPVIT2012	Identify and treat nursery plant disorders
FBPVIT2013	Recognise disorders and identify pests and diseases
FBPVIT2015	Carry out basic canopy maintenance
FBPVIT3001	Coordinate vineyard operations
FBPVIT3002	Maintain field nursery activities
FBPVIT3003	Operate spreading and seeding equipment
FBPVIT3004*	Monitor and maintain nursery plants
FBPVIT3005	Install and maintain vine trellis
FBPVIT3006	Field graft vines
FBPVIT3007*	Operate specialised canopy management equipment
FBPVIT3008	Operate a mechanical harvester
FBPVIT3009	Monitor and control vine disorders and damage
FBPVIT3010	Implement a soil management program

FBPVIT3011	Perform shed nursery activities
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### Group F General

AHCMOM213	Operate and maintain chainsaws
AHCWRK309	Apply environmentally sustainable work practices
BSBINT303	Organise the importing and exporting of goods
BSBLDR403	Lead team effectiveness
BSBSMB407	Manage a small team
FBPFSY3001	Monitor the implementation of quality and food safety programs
FBPOPR2063	Clean equipment in place
FBPOPR2064	Clean and sanitise equipment
FBPOPR3005	Operate interrelated processes in a production system
FBPPPL3005	Participate in an audit process
FBPTEC3002	Implement the pest prevention program
FBPTEC4002	Apply principles of food packaging
FBPWIN2002	Communicate wine industry information
FBPWIN2003	Conduct sensory evaluation of wine
HLTAID003	Provide first aid
MSL933007	Apply critical control point requirements
MSS402002	Sustain process improvements
MSS402020	Apply quick change over procedures
MSS402040	Apply 5S procedures
MSS402050	Monitor process capability
MSS402061	Use SCADA systems and operations
MSS402080	Undertake root cause analysis

RIIWHS202D	Enter and work in confined spaces
TAEASS301	Contribute to assessment
TAEDEL301	Provide work skill instruction
TLIA2014	Use product knowledge to complete work operations
TLIA3016	Use inventory systems to organise stock control
TLIA3018	Organise despatch operations
TLIA3019	Organise receival operations
TLIA3038	Control and order stock
TLID2003	Handle dangerous goods/hazardous substances
TLID2022	Conduct weighbridge operations
TLIK2010	Use infotechnology devices in the workplace
TLILIC0003	Licence to operate a forklift truck

### Prerequisite requirements

Unit of competency	Prerequisite requirement
FBPVIT3004 Monitor and maintain nursery plants	FBPVIT2012 Identify and treat nursery plant disorders
FBPVIT3007 Operate specialised canopy management equipment	AHCMOM202 Operate tractors
FBPWIN3001 Evaluate wines (advanced)	FBPWIN2003 Conduct sensory evaluation of wine

### Qualification Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBP30918 Certificate III in	FDF30411 Certificate III in	Updated to meet Standards for Training	No equivalent qualification

Code and title current version	Code and title previous version	Comments	Equivalence status
Wine Industry Operations	Wine Industry Operations	Packages  The number of units to achieve the qualification reduced from 25 to 19  Changes to packaging rules, core and elective units	

## Links

Companion Volume Implementation Guides are found in VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# FBP31018 Certificate III in Sugar Milling Industry Operations

## Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package version 2.0.

## Qualification Description

This qualification describes the skills and knowledge required for operational workers in the sugar milling industry. These workers carry out skilled tasks under broad direction in a range of areas including sugar processing, cane supply and transport, and milling services.

All work must be carried out to comply with workplace procedures, in accordance with state/territory food safety, health and safety and environmental codes, regulations and legislation that apply to the workplace.

No occupational licensing, legislative or certification requirements apply to this qualification at the time of publication.

## Entry Requirements

There are no entry requirements for this qualification.

## Packaging Rules

To achieve this qualification, competency must be demonstrated in:

- 24 units of competency:
  - 3 core units, plus
  - 21 elective units.

Elective units must ensure the integrity of the qualification's Australian Qualification Framework (AQF) alignment and contribute to a valid, industry-supported vocational outcome. The electives are to be chosen as follows:

- at least 9 from the electives listed below, with at least 3 from Group A
- up to 12 from the electives listed below, or from any currently endorsed Training Package or accredited course.

## Core Units

BSBWHS201	Contribute to health and safety of self and others
FBPSUG3008	Analyse and convey workplace information
MSMENV272	Participate in environmentally sustainable work practices

### Elective Units

An asterisk (\*) next to the unit code indicates that there are prerequisite requirements which must be met when packaging the qualification. Please refer to the Prerequisite requirements table for details.

### Group A

CPCCDO3011 A*	Perform dogging
CPCCRI3012A *	Perform basic rigging
FBPOPR2034	Operate an evaporation process
FBPPPL3004	Lead work teams and groups
FBPSUG2009	Operate an extraction station
FBPSUG2013	Operate a pan station
FBPSUG3002	Control cane traffic movements
FBPSUG3003	Adjust cane delivery schedules to meet daily milling requirements
FBPSUG3004*	Drive a master-slave locomotive
FBPSUG3005	Operate a sugar system
FBPSUG3006*	Monitor a sugar mill powerhouse
FBPSUG3007	Perform factory control tests
MSMBLIC002	Licence to operate an advanced boiler
TLILIC2016	Licence to drive a heavy rigid vehicle
TLILIC3017	Licence to drive a heavy combination vehicle

### Group B

CPCCOHS2001 A	Apply OHS requirements, policies and procedures in the construction industry
CPCCSC2002A *	Erect and dismantle basic scaffolding
FBPOPR2068	Operate a process control interface
FBPSUG2001	Lay sleepers for cane rail systems
FBPSUG2002	Lay rails for cane rail systems
FBPSUG2003	Lay skeleton track for cane rail system
FBPSUG2004	Operate tamping equipment
FBPSUG2005*	Construct turnouts
FBPSUG2006	Collect and prepare samples
FBPSUG2007	Conduct cane weighbridge operations
FBPSUG2008	Operate a tipping station
FBPSUG2010	Operate a juice clarification process
FBPSUG2011	Operate a mud filtration process
FBPSUG2012	Chemically clean equipment
FBPSUG2014	Operate a low grade fugal station
FBPSUG2015	Operate a high grade fugal station
FBPSUG2016	Operate a crystalliser station process
FBPSUG2017	Undertake simple fabrication
FBPSUG2018	Undertake forming, bending and shaping
FBPSUG2019	Operate a bagasse fuel supply system
FBPSUG2020	Operate a coal fuel supply system
FBPSUG2021	Operate an ash separation system
FBPSUG2022	Operate a waste water treatment system
FBPSUG2023	Operate a cooling water system



FBPSUG2024	Perform standard tests on cane samples
FBPSUG2025	Perform general planing and shaping operations
FBPSUG2026	Perform general drilling operations
FBPSUG2027	Perform general lathe operations
FBPSUG2028	Perform general milling operations
FBPSUG3001	Drive a cane locomotive
MSMBLIC001	Licence to operate a standard boiler
RIICBM305D	Install pre-cast concrete bridge decks
RIIHAN305D	Operate a gantry or overhead crane
RIIMPO319E	Conduct backhoe/loader operations
TLID3035	Operate a boom type elevating work platform
TLID3036	Lift and move load using a mobile crane
TLILIC0003	Licence to operate a forklift truck
TLILIC0008	Licence to operate a non-slewing mobile crane (greater than 3 tonnes capacity)
TLILIC2014	Licence to drive a light rigid vehicle
TLILIC2015	Licence to drive a medium rigid vehicle
UEPOPL001	Licence to operate a steam turbine

### Prerequisite requirements

Note: Units listed in the *Prerequisite requirement* column that have their own prerequisite requirements are shown with an asterisk (\*)

Unit of competency	Prerequisite requirement
CPCCDO3011A Perform dogging	CPCCOHS2001A Apply OHS requirements, policies and procedures in the construction industry
CPCCRI3012A Perform basic rigging	CPCCDO3011A Perform dogging*
CPCCSC2002A Erect and	CPCCOHS2001A Apply OHS requirements, policies and

dismantle basic scaffolding	procedures in the construction industry
FBPSUG2005 Construct turnouts	FBPSUG2002 Lay rails for cane rail systems
FBPSUG3004 Drive a master-slave locomotive	FBPSUG3001 Drive a cane locomotive
FBPSUG306 Monitor a sugar mill powerhouse	UEPOPL001A Licence to operate a steam turbine

## Qualification Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBP31018 Certificate III in Sugar Milling Industry Operations	FDF31012 Certificate III in Sugar Milling Industry Operations	Updated to meet Standards for Training Packages Packaging rules amended Imported units updated or deleted	Equivalent qualification

## Links

Companion Volume Implementation Guides are found in VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## FBP40117 Certificate IV in Flour Milling

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package version 1.0.

### Qualification Description

The qualification covers the skills and knowledge for mill managers and senior supervisors (above the shift miller level) who supervise operations across departments, set or participate in setting production targets and monitor key performance indicators for a flour mill. These roles require technical, leadership and business skills and knowledge to implement and manage systems and procedures to mill a wide range of flours.

It covers flour milling operations for all types of grain including wheat, oats, barley, corn, rice, sorghum, millet, rye, and non-grain flours such as peas and arrowroot for human consumption. All work must be carried out to comply with workplace procedures, in accordance with State/Territory food safety, work health and safety and environmental codes, regulations and legislation that apply to the workplace.

No occupational licensing, legislative or certification requirements apply to this qualification at the time of publication.

### Entry Requirements

There are no entry requirements for this qualification.

### Packaging Rules

To achieve this qualification, competency must be demonstrated in:

- 22 units of competency:
  - 10 core units plus
  - 12 elective units.

Elective units must ensure the integrity of the qualification's Australian Qualifications Framework (AQF) alignment and contribute to a valid, industry-supported vocational outcome. The electives must include a minimum of 3 units beginning with the code FDF or FBP, and are to be chosen as follows:

- 6 must be selected from Group A
- 6 may be selected from:
  - the remaining units listed in Groups A or B
  - elsewhere in this Training Package packaged at Certificate III (maximum of 5 units), Certificate IV, or Diploma (maximum of 2 units)
  - any other currently endorsed training package or accredited course packaged at Certificate III (maximum of 2 units), Certificate IV (maximum of 4 units) or Diploma (maximum of 2 units).

### Core Units

An asterisk (\*) next to the unit code indicates that there are prerequisite requirements which must be met when packaging the qualification. Please refer to the Prerequisite requirements table for details.

FBPGRA3003	Lead flour milling shift operations
FBPGRA3004	Control mill processes and performance
FBPGRA4001	Control power and automation for milling processes
FBPGRA4002	Supervise testing processes for wheat and flour
FBPGRA4003	Manage mill logistics and support services
FBPGRA4004	Establish and supervise dust control procedures in a grain processing enterprise
FDFFS2001A	Implement the food safety program and procedures
FDFFS3001A*	Monitor the implementation of quality and food safety programs
FDFOHS4002 A	Maintain OHS processes
MSMENV472	Implement and monitor environmentally sustainable work practices

### Elective Units

An asterisk (\*) next to the unit code indicates that there are prerequisite requirements which must be met when packaging the qualification. Please refer to the Prerequisite requirements table for details.

### Group A

BSBLED401	Develop teams and individuals
BSBMGT402	Implement operational plan
BSBMGT403	Implement continuous improvement
BSBSMB407	Manage a small team
FBPPPL4001*	Manage people in the work area
FBPPPL4002	Plan and coordinate production equipment maintenance
FBPPPL4003	Schedule and manage production
FBPPPL4004*	Optimise a work process
FBPPPL4005	Manage supplier agreements and contracts
FBPPPL4006	Manage a work area within budget
FDFEST4002 A	Monitor the development and implementation of a food QA system
FDFEST4003 A	Apply digital technology in food processing
FDFEST4005 A	Document processes and procedures for a food product
FDFEST4007 A	Establish operational requirements for a food processing enterprise
FDFEST4012 A	Apply water management principles to the food industry
FDFOP3003A	Operate interrelated processes in a production system
FDFOP3004A	Operate interrelated processes in a packaging system
FDFPPL3002 A	Report on workplace performance
FDFPPL3005	Participate in audit processes

A*	
FDFPPL4005 A*	Establish process capability
FDFTEC4001 A	Determine handling processes for perishable food items
FDFTEC4002 A	Manage controlled atmosphere storage
FDFTEC4003 A*	Control food contamination and spoilage
FDFTEC4004 A*	Apply basic process engineering principles to food processing
FDFTEC4005 A	Apply an understanding of food additives
FDFTEC4006 A	Apply an understanding of legal requirements of food production
FDFTEC4007 A*	Describe and analyse data using mathematical principles
FDFTEC4008 A	Apply principles of food packaging
FDFTEC4009 A	Identify the physical and chemical properties of materials, food and related products
FDFTEC4010 A*	Manage water treatment processes
FDFTEC4011 A*	Participate in product recalls
MEM09002B	Interpret technical drawing
MEM30011A	Set up basic pneumatic circuits
MSMOPS400	Optimise process/plant area
MSMOPS401	Trial new process or product
MSMSUP405	Identify problems in fluid power system
MSMSUP406	Identify problems in electronic control systems

MSS014003	Optimise sustainability of a process or plant area
MSS014004	Develop team strategies for more sustainable use of resources
MSS015005	Develop required sustainability reports
MSS024003	Apply an understanding of environmental principles to a site
MSS403001	Review competitive systems and practices
MSS403002	Ensure process improvements are sustained
MSS403011	Facilitate implementation of competitive systems and practices
MSS403030	Improve cost factors in work practices
MSS403032	Analyse manual handling processes
MSS403051	Mistake proof an operational process
MSS404050	Undertake process capability improvements
MSS404052	Apply statistics to operational processes
MSS404081	Undertake proactive maintenance analyses
MSS404082	Assist in implementing a proactive maintenance strategy
MSS404083	Support proactive maintenance
PMBTECH406	Diagnose production equipment problems

### Group B

AHCBAC204	Prepare grain storages
BSBCUS501	Manage quality customer service
BSBHRM405	Support the recruitment, selection and induction of staff
BSBINN301	Promote innovation in a team environment
BSBLDR403	Lead team effectiveness

BSBMGT401	Show leadership in the workplace
BSBWOR403	Manage stress in the workplace
BSBWOR404	Develop work priorities
BSBWRT401	Write complex documents
FBPGRA2003	Operate a grain conditioning process
FBPGRA2004	Operate a grain cleaning process
FBPGRA2005	Operate a purification process
FBPGRA2006	Operate a scalping and grading process
FBPGRA2007	Operate a scratch and sizing process
FBPGRA2008	Operate a break roll process
FBPGRA2010	Handle grain in a storage area
FDFOP2030A	Operate a process control interface
FDFTEC3002 A	Implement the pest prevention program
MEM15001B	Perform basic statistical quality control
MSMSUP390	Use structured problem-solving tools
MSS402060	Use planning software systems in operations
MSS402061	Use SCADA systems in operations
MSS402080	Undertake root cause analysis
MSS403005	Facilitate use of a Balanced Scorecard for performance improvement
MSS403010	Facilitate change in an organisation implementing competitive systems and practices
MSS403013	Lead team culture improvement
MSS403021	Facilitate a Just in Time system
MSS403023	Monitor a levelled pull system of operations



MSS403040	Facilitate and improve implementation of 5S
MSS403041	Facilitate breakthrough improvements
MSS404053	Use DMAIC techniques
MSS404060	Facilitate the use of planning software systems in a work area or team
MSS404061	Facilitate the use of SCADA systems in a team or work area
RIIRIS201D	Conduct local risk control
TLIJ2004	Implement grain monitoring measures

### Prerequisite requirements

Unit of competency	Prerequisite requirement
FBPPPL4001 Manage people in the work area	FBPPPL3001 Support and mentor individuals and groups
FBPPPL4004 Optimise a work process	FDFPPL3001A Participate in improvement processes
FDFFS3001A Monitor the implementation of quality and food safety programs	FDFFS2001A Implement the food safety program and procedures
FDFOP2015A Apply principles of statistical process control	FDFOP2061A Use numerical applications in the workplace
FDFPPL3005A Participate in an audit process	FDFOHS2001A Participate in OHS processes FDFOP2063A Apply quality systems and procedures MSAENV272B Participate in environmentally sustainable work practices
FDFPPL4005A Establish process capability	FDFTEC4007A Describe and analyse data using mathematical principles*
FDFTEC3001A Participate in a HACCP team	FDFFS2001A Implement the food safety program and procedures
FDFTEC4003A Control food	FDFFS3001A Monitor the implementation of quality and

contamination and spoilage	food safety programs* FDFOHS4002A Maintain OHS processes FDFTEC3001A Participate in a HACCP team*
FDFTEC4004A Apply basic process engineering principles to food processing	FDFTEC4007A Describe and analyse data using mathematical principles* FDFOP2030A Operate a process control interface
FDFTEC4007A Describe and analyse data using mathematical principles	FDFOP2015A Apply principles of statistical process control*
FDFTEC4010A Manage water treatment processes	MSAENV272B Participate in environmentally sustainable work practices
FDFTEC4011A Participate in product recalls	FDFFS3001A Monitor the implementation of quality and food safety programs*

## Qualification Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBP40117 Certificate IV in Flour Milling	FDF41012 Certificate IV in Flour Milling	Updated to meet Standards for Training Packages  Imported units updated or deleted	Equivalent qualification

## Links

Companion Volumes, including Implementation Guides, are available at VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## FBP40217 Certificate IV in Baking

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package version 1.0.

### Qualification Description

This Qualification describes the specialist technical skills and knowledge of an advanced bread baker, advanced pastry cook or advanced baker working in a commercial baking environment. It may be packaged to reflect a specialisation in advanced bread baking skills or in advanced pastry skills, or a combination of both.

This Qualification includes technical, artisan and creative skills and knowledge required to produce bakery products, solve baking problems, and ensure that baking and business operations are implemented and maintained to optimal performance.

All work must be carried out to comply with workplace procedures, in accordance with State/Territory food safety, and work health and safety, regulations and legislation that apply to the workplace.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

### Entry Requirements

To commence this qualification an individual must have:

- completed a Certificate III qualification in a field of study related to commercial baking, or
- at least 3 year's full time relevant employment in a commercial baking environment.

### Packaging Rules

To achieve this qualification, competency must be demonstrated in:

- 14 units of competency:
  - 7 core units plus
  - 7 elective units.

Electives must ensure the integrity of the qualification's Australian Quality Framework (AQF) alignment and contribute to a valid, industry-supported vocational outcome. The electives are to be chosen as follows:

- A minimum of 3 from Group A and B
- Up to 4 from Group C
- Up to 2 from any currently endorsed Training Package or accredited course that is packaged at a Certificate IV or Diploma level.

Any combination of electives that meets the packaging rules can be selected for the award of the Certificate IV in Baking.

Electives may be packaged to provide a qualification with a specialisation area as follows:

- A minimum of 5 electives from Group A must be selected for award of the Certificate IV in Baking (Advanced Bread)
- A minimum of 6 electives from Group B must be selected for award of the Certificate IV in Baking (Advanced Pastry)

### Core Units

BSBSUS401	Implement and monitor environmentally sustainable work practices
FBPRBK3016	Control and order bakery stock
FBPRBK4004	Develop baked products
FBPRBK4006	Coordinate baking operations
FDFFS4001A	Supervise and maintain a food safety plan
FDFOHS4002 A	Maintain OHS processes
SITXHRM001	Coach others in job skills

### Elective Units

An asterisk (\*) next to the unit code indicates that there are prerequisite requirements which must be met when packaging the qualification. Please refer to the Prerequisite requirements table for details.

### Group A Advanced Bread

FBPRBK3005	Produce basic bread products
FBPRBK3011	Produce frozen dough products
FBPRBK3017 *	Operate plant baking processes
FBPRBK4001 *	Produce artisan bread products
FBPRBK4002 *	Develop advanced artisan bread methods
FBPRBK4007	Assess and evaluate bread products
FBPRBK4008	Apply bread baking science

### Group B Advanced Pastry

FBPRBK3003	Produce specialist pastry products
FBPRBK3010	Produce cake and pudding products
FBPRBK4003 *	Produce gateaux, tortes and entremets
FBPRBK4005	Apply advanced finishing techniques for specialty cakes
SITHPAT005*	Produce petit fours
SITHPAT006*	Produce desserts
SITHPAT008*	Produce chocolate confectionery
SITXFSA001	Use hygienic practices for food safety

### Group C Bakery Operations

BSBCUS401	Coordinate implementation of customer service strategies
BSBFRA401	Manage compliance with franchisee obligations and legislative requirements
BSBSMB405	Monitor and manage small business operations

BSBSMB407	Manage a small team
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### Prerequisite requirements

Unit of competency	Prerequisite requirement
FBPRBK3017 Operate plant baking processes	FBPRBK3005 Produce basic bread products
FBPRBK4001 Produce artisan bread products	FBPRBK3005 Produce basic bread products
FBPRBK4002 Develop advanced artisan bread methods	FBPRBK4001 Produce artisan bread products
FBPRBK4003 Produce gateaux, tortes and entremets	FBPRBK3010 Produce cake and pudding products
SITHPAT005 Produce petit fours	SITXFSA001 Use hygienic practices for food safety
SITHPAT006 Produce desserts	SITXFSA001 Use hygienic practices for food safety
SITHPAT008 Produce chocolate confectionery	SITXFSA001 Use hygienic practices for food safety

### Qualification Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBP40217 Certificate IV in Baking	FDF40811 Certificate IV Advanced Baking	Redesigned. Changes to core and electives units. Baking business operations stream removed.	No Equivalent qualification

## Links

Companion Volumes, including Implementation Guides, are available at VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## FBP40318 Certificate IV in Food Processing

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package version 2.0.

### Qualification Description

This qualification reflects the role of workers who work in supervisory or middle management roles within food processing environments. Workers contribute specialist technical skills and knowledge to solve food production problems and supervise the work of others. Emphasis is on monitoring the implementation and quality control of food processing systems and procedures for optimal performance.

Legislative and regulatory requirements apply to food safety and are enforced through state/territory jurisdictions. Users must check with the relevant regulatory authority before delivery.

### Entry Requirements

There are no entry requirements for this qualification.

### Packaging Rules

To achieve this qualification, competency must be demonstrated in:

- 20 units of competency:
  - 8 core units, plus
  - 12 elective units, including up to 4 from any currently endorsed Training Package or accredited course.

Elective units must ensure the integrity of the qualification's Australian Qualification Framework (AQF) alignment and contribute to a valid, industry-supported vocational outcome.

#### Core Units

BSBLDR401	Communicate effectively as a workplace leader
BSBPMG522	Undertake project work



BSBRSK401	Identify risk and apply risk management processes
BSBWHS401	Implement and monitor WHS policies, procedures and programs to meet legislative requirements
FBPFSY4001	Supervise and maintain a food safety plan
FBPTEC4003	Control food contamination and spoilage
FBPTEC4007	Describe and analyse data using mathematical principles
MSMENV472	Implement and monitor environmentally sustainable work practices

### Elective Units

An asterisk (\*) next to the unit code indicates that there are prerequisite requirements which must be met when packaging the qualification. Please refer to the Prerequisite requirements table for details.

BSBLDR402	Lead effective workplace relationships
BSBMGT401	Show leadership in the workplace
BSBRES411	Analyse and present research information
FBPAUD4001	Assess compliance with food safety programs
FBPFST4001	Apply food processing technologies
FBPFST4002	Carry out sampling and testing of milk at receival
FBPFST4003	Apply digital technology in food processing
FBPFST4005	Document food processes and supporting procedures
FBPFST4007	Establish operational requirements for a food processing enterprise
FBPFST4012	Apply water management principles to the food industry
FBPFST5001	Monitor refrigeration and air conditioning systems in food processing
FBPFST5002	Identify and implement required process control for a food processing operation

FBPFST5003	Construct a process control chart for a food processing operation
FBPFST5009	Implement and review the processing of market milk and related products
FBPFST5010	Implement and review the preparation of milk for processing
FBPFST5011	Implement and review the processing of chocolate and sugar-panned products
FBPFST5012	Implement and review the processing of aerated confectioneries
FBPFST5013	Implement and review the production of gums and jellies
FBPFST5014	Implement and review the production of chocolate products
FBPFST5015	Implement and review the processing of chocolate
FBPFST5016	Implement and review the processing of high and low boil confectionery
FBPFST5017	Implement and review the processing of confectionery products
FBPFST5018	Implement and review the processing of chilled or frozen poultry products
FBPFST5019	Implement and review the processing of cooked poultry products
FBPFST5020	Implement and review the processing of egg based products
FBPFST5021	Implement and review processing of fruit, vegetables, nuts, herbs and spices
FBPFST5022	Implement and review the processing of fish and seafood products
FBPFST5023	Implement and review the production of milk fat products
FBPFST5024	Implement and review the production of fermented dairy products and dairy desserts
FBPFST5025	Implement and review the production of concentrated and dried dairy products

FBPFST5026	Implement and review the production of ice creams and frozen dairy products
FBPFST5027	Implement and review the production of milk and related products by the membrane system
FBPFST5028	Implement and review the manufacturing and processing of edible fats and oils
FBPFST5029	Implement and review manufacturing, packaging and testing of beverage products
FBPFST5030	Implement and review manufacturing of cereal products
FBPFSY4002	Supervise and verify supporting programs for food safety
FBPOPR4001	Apply principles of statistical process control
FBPPPL4001*	Manage people in the work area
FBPPPL4002	Plan and coordinate production equipment maintenance
FBPPPL4003	Schedule and manage production
FBPPPL4004*	Optimise a work process
FBPPPL4005	Manage supplier agreements and contracts
FBPPPL4006	Manage a work area within budget
FBPPPL4007	Manage internal audits
FBPTEC4001	Determine handling processes for perishable food items
FBPTEC4002	Apply principles of food packaging
FBPTEC4004	Apply basic process engineering principles to food processing
FBPTEC4005	Apply an understanding of food additives to products
FBPTEC4006	Apply an understanding of legal compliance of food production
FBPTEC4008	Participate in product recalls
FBPTEC4010	Manage water treatment processes
FBPTEC4011*	Establish process capability

MSL934004	Maintain and calibrate instruments and equipment
MSMSUP390	Use structured problem-solving tools
MSS403013	Lead team culture improvement
MSS403040	Facilitate and improve implementation of 5S
MSS403041	Facilitate breakthrough improvements
MSS404081	Undertake proactive maintenance analyses
MSS404082	Assist in implementing a proactive maintenance strategy
MSS404083	Support proactive maintenance
PMBTECH406	Diagnose production equipment problems
SITXHRM002	Roster staff
TAEDEL301	Provide work skill instruction
TLIL3003	Conduct induction process

### Prerequisite requirements

Unit of competency	Prerequisite requirement
FBPPPL4001 Manage people in the work area	FBPPPL3001 Support and mentor individuals and groups
FBPPPL4004 Optimise a work process	FBPPPL3003 Participate in improvement processes
FBPTEC4011 Establish process capability	FBPTEC4007 Describe and analyse data using mathematical principles

### Qualification Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBP40318	FDF40110	Updated to meet	No equivalent qualification

Code and title current version	Code and title previous version	Comments	Equivalence status
Certificate IV in Food Processing	Certificate IV in Food Processing	Standards for Training Packages  Updated core and elective units  Updated packaging rules	

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# FBP40418 Certificate IV in Food Science and Technology

## Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package version 2.0.

## Qualification Description

This qualification targets those working in technical and supervisory roles covering product development, food safety and quality, food production and distribution, environmental functions, and the maintenance and monitoring of food processing systems. The job roles require specialist technical skills and knowledge in food science and technology to complete routine and non-routine tasks and functions, and workers have responsibility for their own functions and outputs, along with limited responsibility for the output of others.

This qualification offers an optional specialisation in Food Safety Auditing. Users interested in this option must refer to relevant state, territory and Commonwealth food safety legislation and the National Regulatory Food Safety Auditor Guideline and Policy for details of auditing requirements in low, medium and high-risk settings, and to understand the food safety auditing work context.

Legislative and regulatory requirements apply to food safety and are enforced through state/territory jurisdictions. Users must check with the relevant regulatory authority before delivery.

## Entry Requirements

There are no entry requirements for this qualification.

## Packaging Rules

To achieve this qualification, competency must be demonstrated in:

- 20 units of competency:
  - 8 core units, plus
  - 12 elective units, including up to 4 from any currently endorsed Training Package or accredited course.

Elective units must ensure the integrity of the qualification's Australian Qualification Framework (AQF) alignment and contribute to a valid, industry-supported vocational outcome.

Any combination of electives that meets the packaging rules can be selected for the award of the Certificate IV in Food Science and Technology.

Where appropriate, electives may be packaged to provide a qualification with a specialisation in Food Safety Auditing. All electives from Group A must be selected for the award of the Certificate IV in Food Science and Technology (Food Safety Auditing).

### Core Units

BSBWHS401	Implement and monitor WHS policies, procedures and programs to meet legislative requirements
FBPFST4004	Perform microbiological procedures in the food industry
FBPFST4011	Apply the principles of nutrition to food processing
FBPFSY4001	Supervise and maintain a food safety plan
FBPTEC4003	Control food contamination and spoilage skills
FBPTEC4007	Describe and analyse data using mathematical principles
MSL974020	Perform food tests
MSMENV472	Implement and monitor environmentally sustainable work practices

### Elective Units

#### Group A - Food safety auditing

FBPAUD4001	Assess compliance with food safety programs
FBPAUD4002	Communicate and negotiate to conduct food safety audits
FBPAUD4003	Conduct food safety audits
FBPAUD4004	Identify, evaluate and control food safety hazards
FBPFST5006	Apply food microbiological techniques and analysis
FBPFSY3001	Monitor the implementation of quality and food safety programs

SIRRFSA001	Handle food safely in a retail environment
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### Group B - General electives

An asterisk (\*) next to the unit code indicates that there are prerequisite requirements which must be met when packaging the qualification. Please refer to the Prerequisite requirements table for details.

FBPCHE5001*	Carry out sampling and interpret tests for cheese production
FBPCHE5002	Produce acid-coagulated soft cheese
FBPCHE5003	Produce a range of rennet-coagulated cheeses
FBPCHE5004	Produce acid and heat coagulated cheese
FBPFST4003	Apply digital technology in food processing
FBPFST4005	Document food processes and supporting procedures
FBPFST4006	Apply food preservation technologies
FBPFST4007	Establish operational requirements for a food processing enterprise
FBPFST4008	Preserve food in cans or sealed containers
FBPFST4009	Label foods according to legislative requirements
FBPFST4010	Apply sensory analysis in food processing
FBPFST4012	Apply water management principles to the food industry
FBPFST5003	Construct a process control chart for a food processing operation
FBPFST5009	Implement and review the processing of market milk and related products
FBPFST5014	Implement and review the production of chocolate products
FBPFST5016	Implement and review the processing of high and low boil confectionery



FBPFST5017	Implement and review the processing of confectionery products
FBPFST5021	Implement and review processing of fruit, vegetables, nuts, herbs and spices
FBPFST5024	Implement and review the production of fermented dairy products and dairy desserts
FBPFST5028	Implement and review the manufacturing and processing of edible fats and oils
FBPFST5030	Implement and review manufacturing of cereal products
FBPFSY4002	Supervise and verify supporting programs for food safety
FBPOPR4001	Apply principles of statistical process control
FBPPPL3003	Participate in improvement processes
FBPPPL4007	Manage internal audits
FBPTEC4001	Determine handling processes for perishable food items
FBPTEC4002	Apply principles of food packaging
FBPTEC4004	Apply basic process engineering principles to food processing
FBPTEC4005	Apply an understanding of food additives
FBPTEC4006	Apply an understanding of legal requirements of food production
FBPTEC4008	Participate in product recalls
FBPTEC4009	Identify the physical and chemical properties of materials, food and related products
FBPTEC4010	Manage water treatment processes
FBPTEC4011*	Establish process capability
MSL973013	Perform basic tests
MSL974019	Perform chemical tests and procedures
MSL974021	Perform biological procedures

MSMOPS401	Trial new process or product
MSMSUP390	Use structured problem-solving tools

### Prerequisite requirements

Unit of competency	Prerequisite requirement
FBPCHE5001 Carry out sampling and interpret tests for cheese production	MSL973013 Perform basic tests
FBPTEC4011 Establish process capability	FBPTEC4007 Describe and analyse data using mathematical principles

### Qualification Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBP40418 Certificate IV in Food Science and Technology	FDF40311 Certificate IV in Food Science and Technology	Updated to meet Standards for Training Packages Updated core and elective units Updated packaging rules	Equivalent qualification

### Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# FBP40518 Certificate IV in Pharmaceutical Manufacturing

## Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

## Qualification Description

This qualification reflects the skills and knowledge for team leaders, supervisors and specialist technical roles within pharmaceutical manufacturing environments. The qualification includes technical skills, problem solving and supervisory skills to operate, monitor and improve the performance of pharmaceutical manufacturing systems, processes and team members.

Work must comply with good manufacturing practice, health and safety and environmental regulations and legislation that apply to the workplace.

No occupational licensing, legislative or certification requirements apply to this qualification at the time of publication.

## Entry Requirements

There are no entry requirements for this qualification.

## Packaging Rules

To achieve this qualification, competency must be demonstrated in:

- 16 units of competency:
  - 8 core units, plus
  - 8 elective units.

Elective units must ensure the integrity of the qualifications' Australian Qualification Framework (AQF) alignment and contribute to a valid, industry-supported vocational outcome. The electives are to be chosen as follows:

- 4 must be from group A
- 4 from the remaining units listed in groups A or B, or any currently endorsed Training Package or accredited course packaged at Certificate III, Certificate IV or Diploma, with no more than 2 units packaged at Certificate III or Diploma.

**Core Units**

BSBSMB407	Manage a small team
BSBWHS401	Implement and monitor WHS policies, procedures and programs to meet legislative requirements
FBPPHM4001	Monitor and maintain good manufacturing practice requirements
FBPPHM4002	Prepare and review workplace documentation to support good manufacturing practice requirements
FBPPHM4003	Facilitate contamination control
FBPPHM4005	Participate in validation of pharmaceutical manufacturing processes
FBPPHM4006	Respond to non-conformance
FBPPPL3006	Report on workplace performance

**Elective Units****Group A**

FBPOPR3005	Operate interrelated processes in a production system
FBPOPR3006	Operate interrelated processes in a packaging system
FBPPHM3002	Operate a pharmaceutical production process
FBPPHM3003	Work in a controlled environment
FBPPHM3004	Clean and sanitise facilities and equipment
FBPPHM4004	Participate in change control procedures
FBPPPL4002	Plan and coordinate production equipment maintenance
FBPTEC4007	Describe and analyse data using mathematical principles
FBPTEC4011*	Establish process capability
MSMOPS400	Optimise process/plant area
MSMSUP406	Identify faults in electronic control
MSMWHS401	Assess risk

MSS403011	Facilitate implementation of competitive systems and practices
MSS403032	Analyse manual handling processes
MSS403085	Ensure process improvements are sustained
MSS403087	Mistake proof an operational process
MSS404052	Apply statistics to operational processes
MSS404061	Facilitate the use of SCADA systems in a team or work area
MSS404082	Assist in implementing a proactive maintenance strategy
MSS404084	Undertake process capability improvements
PMBTECH406	Diagnose production equipment problems

**Group B**

BSBHRM405	Support the recruitment, selection and induction of staff
BSBINN301	Promote innovation in a team environment
BSBLDR402	Lead effective workplace relationships
BSBLDR403	Lead team effectiveness
BSBLED401	Develop teams and individuals
BSBMGT401	Show leadership in the workplace
BSBMGT402	Implement operational plan
BSBMGT403	Implement continuous improvement
BSBRES411	Analyse and present research information
BSBWOR403	Manage stress in the workplace
BSBWOR404	Develop work priorities
FBPOPR2069	Use numerical applications in the workplace
FBPOPR4001	Apply principles of statistical process control
FBPPPL3005	Participate in an audit process

MSL922001	Record and present data
MSMPER300*	Issue work permits
MSMSUP390	Use structured problem-solving tools
MSMWHS201	Conduct hazard analysis
MSS402080	Undertake root cause analysis
MSS402083	Use planning software systems in operations
MSS403010	Facilitate change in an organisation implementing competitive systems and practices
MSS403021	Facilitate a Just in Time system
MSS403023	Monitor a levelled pull system of operations
MSS403040	Facilitate and improve implementation in 5S
MSS403041	Facilitate breakthrough improvements
MSS404053	Use DMAIC techniques
MSS404060	Facilitate the use of planning software systems in a work area or team
TAEASS402	Assess competence
TAEASS403	Participate in assessment validation
TAEDEL301	Provide work skill instruction

### Prerequisite requirements

Unit of competency	Prerequisite requirement
FBPTEC4011 Establish process capability	FBPTEC4007 Describe and analyse data using mathematical principles
MSMPER300 Issue work permits	MSMWHS201 Conduct hazard analysis

## Qualification Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBP40518 Certificate IV in Pharmaceutical Manufacturing	FDF40210 Certificate IV in Pharmaceutical Manufacturing	Updated to meet Standards for Training Packages  The number of units to achieve the qualification reduced from 21 to 16  Changes to packaging rules, core and elective units	No equivalent qualification

## Links

Companion Volume Implementation Guides are found in VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# FBP50118 Diploma of Food Science and Technology

## Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package version 2.0.

## Qualification Description

This qualification reflects the role of workers who apply specialist knowledge and skills in food science and technology to food product development and to quality assurance of food manufacturing. They conduct a wide range of specialist tasks to develop, monitor and evaluate food products, including production trials.

Workers contribute to the modification of standard operating procedures (SOPs) and enterprise methods when necessary. They may also have a role in the planning new work and monitoring resources in their work area.

Legislative and regulatory requirements apply to food safety and are enforced through state/territory jurisdictions. Users must check with the relevant regulatory authority before delivery.

## Entry Requirements

There are no entry requirements for this qualification.

## Packaging Rules

To achieve this qualification, competency must be demonstrated in:

- 20 units of competency:
  - 11 core units, plus
  - 9 elective units including up to 3 from any currently endorsed Training Package or accredited course

Elective units must ensure the integrity of the qualification's Australian Qualification Framework (AQF) alignment and contribute to a valid, industry-supported vocational outcome.

## Core Units



BSBWHS401	Implement and monitor WHS policies, procedures and programs to meet legislative requirements
FBPFST4004	Perform microbiological procedures in the food industry
FBPFST5002	Identify and implement required process control for a food processing operation
FBPFST5005	Examine the biochemical properties of food
FBPFST5006	Apply food microbiological techniques and analysis
FBPFST6001	Develop, manage and maintain quality systems for food processing
FBPFSY4001	Supervise and maintain a food safety plan
FBPFSY5001	Develop a HACCP-based food safety plan
FBPTEC4007	Describe and analyse data using mathematical principles
MSL975038	Conduct sensory analysis
MSMENV472	Implement and monitor environmentally sustainable work practices

### Elective Units

An asterisk (\*) next to the unit code indicates that there are prerequisite requirements which must be met when packaging the qualification. Please refer to the Prerequisite requirements table for details.

BSBPMG522	Undertake project work
FBPCHE5001*	Carry out sampling and interpret tests for cheese production
FBPCHE5002	Produce acid-coagulated soft cheese
FBPCHE5003	Produce a range of rennet-coagulated cheeses
FBPCHE5004	Produce acid and heat coagulated cheese
FBPFST4006	Apply food preservation technologies
FBPFST5003	Construct a process control chart for a food processing operation
FBPFST5004	Specify and monitor the nutritional value of processed food
FBPFST5007	Monitor the development and implementation of a food QA system

FBPFST5008	Develop a new food product
FBPFST5009	Implement and review the processing of market milk and related products
FBPFST5010	Implement and review the preparation of milk for processing
FBPFST5011	Implement and review the processing of chocolate and sugar-panned products
FBPFST5012	Implement and review the processing of aerated confectioneries
FBPFST5013	Implement and review the production of gums and jellies
FBPFST5014	Implement and review the production of chocolate products
FBPFST5015	Implement and review the processing of chocolate
FBPFST5016	Implement and review the processing of high and low boil confectionery
FBPFST5017	Implement and review the processing of confectionery products
FBPFST5018	Implement and review the processing of chilled or frozen poultry products
FBPFST5019	Implement and review the processing of cooked poultry products
FBPFST5020	Implement and review the processing of egg based products
FBPFST5021	Implement and review processing of fruit, vegetables, nuts, herbs and spices
FBPFST5022	Implement and review the processing of fish and seafood products
FBPFST5023	Implement and review the production of milk fat products
FBPFST5024	Implement and review the production of fermented dairy products and dairy desserts
FBPFST5025	Implement and review the production of concentrated and dried dairy products
FBPFST5026	Implement and review the production of ice creams and frozen dairy products
FBPFST5027	Implement and review the production of milk and related products by the membrane system

FBPFST5028	Implement and review the manufacturing and processing of edible fats and oils
FBPFST5029	Implement and review manufacturing, packaging and testing of beverage products
FBPFST5030	Implement and review manufacturing of cereal products
FBPTEC4002	Apply principles of food packaging
FBPTEC4004	Apply basic process engineering principles to food processing
FBPTEC4005	Apply an understanding of food additives
FBPTEC4008	Participate in product recalls
FBPTEC5001	Manage and evaluate new product trials
FBPTEC5002	Manage utilities and energy for a production process
MSS407016	Lead a process to determine and solve root cause for a complex problem

### Prerequisite requirements

Unit of competency	Prerequisite requirement
FBPCHE5001 Carry out sampling and interpret tests for cheese production	MSL973013 Perform basic tests

### Qualification Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBP50118 Diploma of Food Science and Technology	FDF50311 Diploma of Food Science and Technology	Updated to meet Standards for Training Packages  Changed core and packaging rules  Elective units changed to	Equivalent qualification

Code and title current version	Code and title previous version	Comments	Equivalence status
		remove groups	

## Links

Companion Volume Implementation Guides are found in VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## FBP50218 Diploma of Food Safety Auditing

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package version 2.0.

### Qualification Description

This qualification reflects the role of workers who apply specialist knowledge and skills in food safety for auditing purposes. They conduct a range of audits in different environments to monitor food quality and safety according to relevant legislation, including food standards included in the Australia New Zealand Food Standards Code and industry codes of practice relating to validation and verification of a food safety program, and the audit requirements detailed in the National Regulatory Food Safety Auditor Guideline and Policy.

Regulatory food safety audits in Australia are covered by state, territory and Commonwealth legislative frameworks that support the requirements of the National Food Safety Audit Policy 2009. Users must check requirements with the relevant regulatory authority before delivery.

### Entry Requirements

There are no entry requirements for this qualification.

### Packaging Rules

To achieve this qualification, competency must be demonstrated in:

- 16 units of competency:
  - 11 core units, plus
  - 5 elective units including up to 3 from any currently endorsed Training Package or accredited course.

Elective units must ensure the integrity of the qualification's Australian Qualification Framework (AQF) alignment and contribute to a valid, industry-supported vocational outcome.

#### Core Units

BSBAUD503	Lead a quality audit
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BSBAUD504	Report on a quality audit
FBPAUD400 1	Assess compliance with food safety programs
FBPAUD400 2	Communicate and negotiate to conduct food safety audits
FBPAUD400 3	Conduct food safety audits
FBPAUD400 4	Identify, evaluate and control food safety hazards
FBPFST5006	Apply food microbiological techniques and analysis
FBPFST6001	Develop, manage and maintain quality systems for food processing
FBPFSY5001	Develop a HACCP-based food safety plan
FBPTEC4006	Apply an understanding of legal requirements of food production
FBPTEC4007	Describe and analyse data using mathematical principles

### Electives

An asterisk (\*) next to the unit code indicates that there are prerequisite requirements which must be met when packaging the qualification. Please refer to the Prerequisite requirements table for details.

BSBAUD501	Initiate a quality audit
FBPAUD5001 *	Audit bivalve mollusc growing and harvesting processes
FBPAUD5002 *	Audit a cook chill process
FBPAUD5003 *	Audit a heat treatment process
FBPAUD5004 *	Audit manufacturing of ready-to-eat meat products
FBPFST4009	Label foods according to legislative requirements
FBPFST5005	Examine the biochemical properties of food

FBPPPL4007	Manage internal audits
FBPPPL5001	Design and maintain programs to support legal compliance
FBPTEC4009	Identify the physical and chemical properties of materials, food and related products

### Prerequisite requirements

Unit of competency	Prerequisite requirement
FBPAUD5001 Audit bivalve mollusc growing and harvesting processes	FBPAUD4002 Communicate and negotiate to conduct food safety audits FBPAUD4003 Conduct food safety audits FBPAUD4004 Identify, evaluate and control food safety hazards
FBPAUD5002 Audit a cook chill process	FBPAUD4002 Communicate and negotiate to conduct food safety audits FBPAUD4003 Conduct food safety audits FBPAUD4004 Identify, evaluate and control food safety hazards
FBPAUD5003 Audit a heat treatment process	FBPAUD4002 Communicate and negotiate to conduct food safety audits FBPAUD4003 Conduct food safety audits FBPAUD4004 Identify, evaluate and control food safety hazards
FBPAUD5004 Audit manufacturing of ready-to-eat meat products	FBPAUD4002 Communicate and negotiate to conduct food safety audits FBPAUD4003 Conduct food safety audits FBPAUD4004 Identify, evaluate and control food safety hazards

### Qualification Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
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Code and title current version	Code and title previous version	Comments	Equivalence status
FBP50218 Diploma of Food Safety Auditing	Not applicable	New qualification	No equivalent qualification

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>



## FBPLAB2001 Use basic laboratory equipment

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

### Application

This unit of competency describes the skills and knowledge required to operate a range of basic laboratory equipment to accurately measure, weigh, separate and filter substances.

The unit applies to those who work in food and wine production and processing environments and carry out routine tests in line with established test methods and clear workplace procedures.

All work must be carried out to comply with workplace procedures, in accordance with State/Territory work health and safety, and food safety regulations, legislation and standards that apply to the workplace.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

### Pre-requisite Unit

Nil

### Unit Sector

Laboratory (LAB)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare basic laboratory equipment for use	1.1 Identify and confirm job requirements 1.2 Select and fit personal protective equipment in accordance with manufacturers' specifications

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	1.3 Confirm availability of materials, services and equipment 1.4 Ensure laboratory equipment is clean, safe, calibrated and ready to use
2. Use basic laboratory equipment and techniques	2.1 Set up and operate equipment in accordance with workplace procedures 2.2 Use laboratory equipment to accurately weigh, measure, separate and filter 2.3 Read and interpret results accurately 2.4 Identify and address non-conforming results
3. Complete equipment operation	3.1 Collect, treat and dispose of or recycle waste generated in accordance with workplace waste management policies 3.2 Clean and sanitise equipment and work surfaces after use in accordance with workplace requirements 3.3 Complete records according to workplace requirements

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"> <li>Interpret work instructions accurately</li> </ul>
Writing	<ul style="list-style-type: none"> <li>Record workplace information using industry-specific vocabulary</li> </ul>
Numeracy	<ul style="list-style-type: none"> <li>Accurately interpret readings from gauges and scales</li> </ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status

FBPLAB2001 Use basic laboratory equipment	FDFLAB2011A Use basic laboratory equipment	Updated to meet Standards for Training Packages  Minor changes to Elements and Performance Criteria to clarify outcomes  Foundation skills added	Equivalent unit
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## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# Assessment Requirements for FBPLAB2001 Use basic laboratory equipment

## Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

## Performance Evidence

An individual demonstrating competency must satisfy all of the elements and performance criteria in this unit.

There must be evidence that the individual has set up, accurately used and cleaned basic laboratory equipment to perform four tasks from the following list:

- weighing
- centrifuging
- separating
- pipetting
- measuring
- titrating
- sterilising.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- purpose and methods of use for a range of basic laboratory equipment
- purpose and methods used to calibrate equipment
- operation of equipment and instrumentation components
- standard tests carried out in the workplace and their purpose
- health and safety requirements for hazards and controls relevant to work role
- environmental issues and controls relevant to work role
- safety data sheets (SDS) for chemicals used
- workplace requirements for recording and reporting problems
- cleaning and sanitising requirements of equipment and work area.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - a standard laboratory or an environment that accurately represents workplace conditions
- resources, equipment and materials:
  - a laboratory space equipped with basic test equipment, sterilisation equipment, common measuring instruments, disinfecting and sterilising agents and media
- specifications:
  - standard methods, workplace procedures, SDS and equipment manuals.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## FBPLAB2002 Prepare laboratory solutions and stains

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

### Application

This unit of competency describes the skills and knowledge required to prepare a variety of solutions and stains for routine tests carried out in a standard laboratory setting.

This unit applies to individuals who are responsible for preparing test solutions and stains required for standard analytical tests, determined by the scope and classification of the laboratory.

All work must be carried out to comply with workplace procedures, in accordance with State/Territory work health and safety, and food safety regulations, legislation and standards that apply to the workplace.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

### Pre-requisite Unit

Nil

### Unit Sector

Laboratory (LAB)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare materials and equipment	1.1 Identify and confirm job requirements 1.2 Identify and select standard methods for solution preparation in accordance with workplace procedures

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	<p>1.3 Confirm availability of required materials, reagents and equipment</p> <p>1.4 Confirm environmental guidelines and identify potential workplace health and safety hazards and controls according to workplace procedures</p> <p>1.5 Select and fit appropriate personal protective equipment as per manufacturers' specifications</p> <p>1.6 Select and assemble appropriate volumetric glassware and measuring equipment, materials and reagents as per requirements</p> <p>1.7 Check shelf life of reagents and solutions and replace out-of-date or reject materials</p>
2. Prepare solutions and stains	<p>2.1 Follow standard workplace method to prepare solution or stain</p> <p>2.2 Measure appropriate quantities of reagents for solution preparation as per requirements</p> <p>2.3 Prepare solutions to achieve homogeneous mix of the specified concentration</p> <p>2.4 Transfer solutions to appropriate containers in accordance with workplace procedures</p> <p>2.5 Label containers with solution details and log details in laboratory register in line with workplace practices</p> <p>2.6 Monitor shelf life of working solutions and dispose of those unfit for use, according to workplace procedures</p>
3. Complete laboratory procedure	<p>3.1 Clean and store glassware and equipment after use, and store reagents</p> <p>3.2 Clean and sanitise equipment and work surfaces after use according to workplace requirements</p> <p>3.3 Use aseptic techniques to ensure health and hygiene of self and others</p> <p>3.4 Collect, treat and dispose of or recycle waste generated by the process in accordance with workplace waste management policies</p> <p>3.5 Complete records according to workplace requirements</p>

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Numeracy	<ul style="list-style-type: none"><li>Use measuring equipment accurately, calculating specified concentrations and dilutions, in line with method</li></ul>
Get the work done	<ul style="list-style-type: none"><li>Problem solve issues as they arise</li></ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPLAB2002 Prepare laboratory solutions and stains	FDFLAB2004A Prepare laboratory solutions and stains	Updated to meet Standards for Training Packages  Prerequisite removed  Minor changes to Performance Criteria to clarify outcomes  Foundation skills added	Equivalent unit

## Links

Companion Volume Implementation Guides are found in VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>



## Assessment Requirements for FBPLAB2002 Prepare laboratory solutions and stains

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

### Performance Evidence

An individual demonstrating competency must satisfy all of the elements and performance criteria in this unit.

There must be evidence that the individual has prepared laboratory solutions and stains, including:

- safely preparing at least three examples of working solutions and/or stains
- accurately labelling each solution or stain
- calculating the quantities involved on each occasion and any dilutions required
- storing solutions and stains appropriately according to light, temperature, contamination and shelf-life
- disposing of waste in line with environmental guidelines on each occasion
- ensuring work takes place in a sanitised environment
- accurately recording workplace information.

### Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- purpose and features of basic laboratory equipment
- purpose and features of a range of basic laboratory solutions and stains
- effect of inappropriate storage on solution and stain quality and performance
- effect of process stages on results and outcomes
- calculations required to prepare specified amounts of solutions of specified concentration
- common causes and consequential effects of inaccuracies or contamination, and preventive or corrective action required
- workplace procedures for preparing solutions
- health and safety hazards and controls
- procedures and responsibility for reporting problems
- environmental issues and controls

- cleaning of equipment and work area
- recording requirements and procedures.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - a standard laboratory or an environment that accurately represents workplace conditions
- resources, equipment and materials:
  - a laboratory space equipped with basic test equipment, sterilisation equipment, common measuring instruments, reagents, containers and storage facilities.
- specifications:
  - standard methods, workplace procedures, SDS and equipment manuals.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## FBPLAB2003 Perform basic analytical tests

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

### Application

This unit of competency describes the skills and knowledge required to perform a range of analytical tests and measurements in a standard laboratory environment.

The unit applies to individuals who apply basic laboratory principles to standard testing applications in industries related to the production of food and wine.

All work must be carried out to comply with workplace procedures, in accordance with State/Territory work health and safety, and food safety regulations, legislation and standards that apply to the workplace.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

### Pre-requisite Unit

Nil

### Unit Sector

Laboratory (LAB)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare for testing	1.1 Identify and confirm job requirements 1.2 Confirm availability of required materials and services to meet testing requirements 1.3 Confirm environmental guidelines and identify potential

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	workplace health and safety hazards and controls according to workplace procedures 1.4 Select and fit appropriate personal protective equipment as per manufacturers' specification 1.5 Register samples and prepare for testing 1.6 Select, prepare and check equipment in accordance with workplace procedures 1.7 Identify and report defects in samples, test materials and equipment
2. Perform testing	2.1 Carry out test methods according to workplace procedures 2.2 Use equipment and materials in accordance with workplace procedures 2.3 Read and interpret results accurately 2.4 Identify and address non-conformance results in accordance with workplace processes
3. Complete testing	3.1 Collect, treat and dispose of or recycle waste generated by the testing in accordance with workplace waste management policies 3.2 Clean and sanitise equipment and work surfaces after use according to workplace requirements 3.3 Complete records according to workplace requirements

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"> <li>Interpret information from a variety of workplace documents</li> </ul>
Writing	<ul style="list-style-type: none"> <li>Record workplace information using industry-specific vocabulary</li> </ul>
Numeracy	<ul style="list-style-type: none"> <li>Accurately interpret readings from gauges and scales</li> </ul>

Skill	Description
Get the work done	<ul style="list-style-type: none"><li>• Problem solve issues as they arise</li></ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPLAB2003 Perform basic analytical tests	FDFLAB2001A Perform basic analytical tests	Updated to meet Standards for Training Packages  Prerequisite removed  Minor changes to Performance Criteria to clarify outcomes  Foundation skills added	Equivalent unit

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## Assessment Requirements for FBPLAB2003 Perform basic analytical tests

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

### Performance Evidence

An individual demonstrating competency must satisfy all of the elements and performance criteria in this unit.

There must be evidence that the individual has performed basic analytical tests, including:

- prepared samples using at least two different methods
- performed at least three basic tests using standard methods and procedures
- recorded results accurately.

### Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- purpose of tests performed as part of job role and principles of the standard methods/specifications used
- sample preparation processes relevant to job role
- typical basic tests and methods relevant to job role
- measurements used for typical tests
- function of key components of the test equipment, pre-use equipment and safety checks
- common causes and effects of inaccuracies or contamination, and preventive or corrective action required
- normal range of results for products tested
- relevant standards, specifications and legislative requirements (quality, health, food safety, labelling and equipment) and their implications on testing requirements
- health and safety hazards and controls
- safety data sheets (SDS) for chemicals used
- environmental issues and controls relevant to work role
- workplace requirements for recording and reporting problems
- cleaning and sanitising requirements of equipment and work area.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - a standard laboratory or an environment that accurately represents workplace conditions
- resources, equipment and materials:
  - a laboratory space equipped with basic test equipment, common measuring instruments, materials
- specifications:
  - standard methods, workplace procedures, SDS and equipment manuals.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## FBPOPR2073 Work in a socially diverse environment

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

### Application

This unit of competency describes the skills and knowledge required to interact effectively with people in a socially diverse workplace environment.

This unit applies to individuals who facilitate communication with customers and colleagues from diverse backgrounds and allow for cultural considerations when identifying issues that may cause misunderstandings in the workplace.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

### Pre-requisite Unit

Nil

### Unit Sector

Operational (OPR)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Use verbal and non-verbal communication in a culturally sensitive manner	1.1 Identify responsibilities according to the principles of anti-discrimination legislation 1.2 Treat people from all social and cultural groups with respect and sensitivity 1.3 Use verbal and non-verbal communication that takes into account social and cultural differences



Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	<p>1.4 Make efforts to communicate through use of gestures or simple words where language barriers exist</p> <p>1.5 Seek assistance from colleagues, specialist resources or outside organisations when cultural considerations could be affecting workplace communication</p>
2. Respond to cross-cultural misunderstandings	<p>2.1 Identify issues that may cause conflict or misunderstanding in the workplace</p> <p>2.2 Consider possible cultural and social differences when difficulties or misunderstandings occur</p> <p>2.3 Address difficulties with appropriate personnel in the workplace and seek assistance to facilitate understanding where required</p> <p>2.4 Make efforts to resolve misunderstandings, taking into account cultural and social considerations</p> <p>2.5 Refer potential issues and problems that cannot be resolved to appropriate personnel for follow-up in accordance with workplace procedures</p>

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Interact with others	<ul style="list-style-type: none"> <li>Treat people from differing backgrounds with respect and sensitivity</li> </ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status

FBPOPR2073 Work in a socially diverse environment	FDFOP2005A Work in a socially diverse environment	Updated to meet Standards for Training Packages  Minor changes to Performance Criteria to clarify intent  Foundation skills added	Equivalent unit
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## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## Assessment Requirements for FBPOPR2073 Work in a socially diverse environment

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

### Performance Evidence

An individual demonstrating competency must satisfy all of the elements and performance criteria in this unit.

There must be evidence that the individual has worked effectively in a socially diverse environment on a minimum of two different occasions, including:

- recognising cultural and social differences in the workplace
- responding to cross-cultural or cross-social misunderstandings.

### Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- principles of equal employment opportunity (EEO) and anti-discrimination legislation as they apply to company and employee rights and responsibilities in the workplace
- recognition of differences between people from different cultural and social backgrounds, including those differing from own
- understanding of the basis of cultural difference, including behaviour or practices that can cause offence, and related strategies for interacting in ways that are culturally and socially sensitive
- communication strategies and styles appropriate to diverse audiences related to the workplace.

### Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - skills must be demonstrated in a workplace setting or an environment that accurately represents a real workplace
- specifications:

- rights and responsibilities relating to anti-discrimination and EEO
- relevant company policies and procedures
- relationships (internal and/or external):
  - opportunities to interact with others using typical workplace communication processes
  - interactions with team members and supervisors or realistic scenarios or role plays.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## FBPVIT2019 Operate the irrigation system

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

### Application

This unit of competency describes the skills and knowledge required to operate the irrigation system and implement the irrigation system maintenance schedule according to instructions.

The unit applies to individuals who work under general supervision to use irrigation systems.

All work must be carried out to comply with workplace procedures, according to state/territory health and safety, and food safety regulations, legislation and standards that apply to the workplace.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

### Pre-requisite Unit

Nil

### Unit Sector

Viticulture (VIT)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare the irrigation system for operation	1.1 Confirm work instructions 1.2 Confirm environmental guidelines and identify potential health and safety hazards and controls 1.3 Select and fit personal protective equipment relevant to the job requirements

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	1.4 Check equipment is ready for use according to workplace procedures
2. Operate the irrigation system	2.1 Start the irrigation system according to workplace procedures 2.2 Set irrigation requirements according to instructions 2.3 Monitor the control points to confirm that performance is maintained within specification 2.4 Rectify out-of-specification system performance and report details
3. Complete operation of the irrigation system	3.1 Shut down the irrigation system according to workplace procedures 3.2 Implement cleaning and maintenance activities, in line with schedule 3.3 Out of specification performance is identified, rectified and reported to supervisor in accordance with responsibilities of own role 3.4 Collect, treat and sustainably dispose of waste generated by both the process and cleaning procedures, according to workplace procedures 3.5 Record workplace information according to workplace procedures

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"> <li>Access and interpret work instructions, standard operating procedures and maintenance schedules</li> </ul>
Oral communication	<ul style="list-style-type: none"> <li>Interact effectively with supervisor, including actively listening to instructions, asking for clarification and seeking advice</li> </ul>
Get the job done	<ul style="list-style-type: none"> <li>Problem solve issues as they arise</li> </ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPVIT2019 Operate the irrigation system	FDFWGG2014A Operate the irrigation system	Updated to meet Standards for Training Packages  Minor changes to Elements and Performance Criteria to clarify outcomes  Foundation skills added  Assessment requirements updated	Equivalent unit

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# Assessment Requirements for FBPVIT2019 Operate the irrigation system

## Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

## Performance Evidence

An individual demonstrating competency must satisfy all of the elements and performance criteria in this unit. There must be evidence that the individual has effectively operated the irrigation system on at least one occasion, including:

- using appropriate personal protective clothing and equipment
- setting equipment correctly to achieve specified irrigation time, application rate and pressure
- monitoring irrigation process control points and equipment
- taking corrective action in response to out-of-specification activity
- recording performance and maintenance information accurately.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- basic plant physiology in relation to the irrigation system, including:
  - transpiration
  - water intake
  - nutrient uptake
  - respiration
  - translocation
- different types of irrigation systems and the advantages and disadvantages of each
- components of irrigation equipment and the function of each, including:
  - drippers
  - pipelines
  - sprinklers
  - filters
  - microjets



- pumps
- furrows
- valves
- motors
- timers
- windmills
- types of maintenance and repairs that need to be undertaken, including issues with:
  - breakages
  - leaks
  - blocks
  - replacing drippers
  - making joins
  - filters and turbo keys
  - monitoring devices
  - priming pumps and motors
- routine cleaning and maintenance requirements and procedures for the system
- information technology systems where relevant
- environmentally sound methods to treat and dispose of waste
- organisational recording and reporting requirements.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - a workplace or an environment that accurately represents workplace conditions
- resources, equipment and materials:
  - irrigation equipment
  - irrigation site
- specifications:
  - work instructions and maintenance schedules.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## FBPVIT3012 Implement an irrigation schedule

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

### Application

This unit of competency describes the skills and knowledge required to monitor soil requirements and implement and review a vineyard irrigation schedule.

The unit applies to individuals who are required to follow workplace procedures in completing tasks associated with implementing irrigation schedules, and take responsibility for their own work using discretion and judgement in the selection and use of available resources.

All work must be carried out to comply with workplace procedures according to state/territory health and safety regulations, legislation and standards that apply to the workplace.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

### Pre-requisite Unit

Nil

### Unit Sector

Viticulture (VIT)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Monitor vineyard for irrigation requirements	1.1 Monitor vineyard to assess requirements for water and/or nutrients 1.2 Collect routine samples according to workplace procedures 1.3 Test samples, in line with workplace procedures

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	1.4 Interpret test results and identify irrigation activities to match requirements
2. Implement irrigation requirements	2.1 Plan irrigation activities and schedule, including nutrient injection and application rates 2.2 Coordinate resources and brief personnel to deliver irrigation requirements 2.3 Implement agreed irrigation plan 2.4 Address problems and anomalies in the irrigation system as required
3. Evaluate effectiveness of irrigation activities	3.1 Monitor vineyard to evaluate the impact of irrigation activities 3.2 Monitor surrounding areas to evaluate the environmental impact of irrigation activities 3.3 Evaluate the overall effectiveness of the irrigation activity 3.4 Record irrigation activity according to workplace requirements

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Numeracy	<ul style="list-style-type: none"> <li>Accurately mix chemicals according to specified ratios</li> <li>Measure and adjust flow rates</li> <li>Measure soil moisture, nutrient and chemical output</li> </ul>
Get the work done	<ul style="list-style-type: none"> <li>Plan, sequence and implement tasks according to set routines and procedures</li> </ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
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FBPVIT3012 Implement an irrigation schedule	FDFWGG3007A Implement an irrigation schedule	Updated to meet Standards for Training Packages  Prerequisite removed  Minor changes to Elements and Performance Criteria to clarify outcomes  Foundation skills added	Equivalent unit
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## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# Assessment Requirements for FBPVIT3012 Implement an irrigation schedule

## Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

## Performance Evidence

An individual demonstrating competency must satisfy all of the elements and performance criteria in this unit. There must be evidence that the individual has implemented an irrigation schedule for at least one vineyard, or part of, including:

- determining requirements for water and nutrients
- planning an irrigation schedule
- implementing the irrigation plan and addressing problems and anomalies
- evaluating the effectiveness of the irrigation schedule.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- effect of irrigation techniques on vine growth, cropping levels and wine quality, including partial root zone drying (PRD) and regulated deficit irrigation (RDI)
- effect of water and additives on vines during different key phenological stages
- visual symptoms of vine nutrient deficiencies, water stress and frost
- principles of soil moisture monitoring, including volumetric soil moisture content, and percentage compared to soil moisture tension
- factors to be considered when planning irrigation, including:
  - soil moisture content
  - water table level
  - water quality
  - signs of vine nutrient deficiencies
  - climatic conditions
  - frost risk
  - grape variety
  - soil type and depth
  - closeness to harvest

- yield parameters
- age of vine
- grape quality requirements
- symptoms of vine water stress
- effective root depth
- methods to calculate chemical application rates for injection requirements
- sampling and testing techniques typically used in a vineyard
- issues to be monitored and corrected:
  - measuring nitrogen output
  - measuring chlorine output
  - identifying soil moisture content and depth to which water will reach
  - identifying emitter output consistency
  - interaction between different irrigation valves or shifts
- recording requirements and procedures
- information technology systems where relevant.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - a workplace or an environment that accurately represents workplace conditions
- resources, equipment and materials:
  - irrigation equipment
  - irrigation site
  - sampling and testing equipment
- specifications:
  - work instructions and schedules
  - manufacturer instructions for equipment
  - safety data sheets for chemicals.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## FBPWHS3001 Contribute to work health and safety processes

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

### Application

This unit of competency describes the skills and knowledge required to support the implementation of health and safety policies and procedures, and contribute to the development and implementation of risk control measures and safety practices within a workplace.

The unit applies to skilled workers with responsibility for maintaining a safe work environment and contributing to workplace practices. In this role, workers have limited responsibility for ensuring members of the work group are implementing safe work practices.

All work must be carried out to comply with workplace procedures, work health and safety legislation and codes that apply to the workplace.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

### Pre-requisite Unit

Nil

### Unit Sector

Work Health and Safety (WHS)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Plan and conduct work safely	1.1 Plan work in accordance with relevant provisions of legislation, standards, codes of practice/compliance codes, guidance material and workplace safe working procedures

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	<p>1.2 Identify hazards as part of work planning and work process</p> <p>1.3 Address identified hazards prior to starting work using judgement within defined scope of responsibilities</p> <p>1.4 Ensure availability of suitable personal protective equipment (PPE) for self and others in the work area</p> <p>1.5 Report inadequacies in control measures according to workplace procedures</p> <p>1.6 Report incidents and injuries in line with workplace policies and procedures</p> <p>1.7 Undertake housekeeping of health and safety in work area in accordance with workplace requirements</p>
2. Support safe work practices in work area	<p>2.1 Monitor implementation of safe work practice policies and procedures</p> <p>2.2 Share information on safe work practices and safety issues in the workplace with members of the work group</p> <p>2.3 Check the health and safety practices of less experienced members of the work group and provide support as required to ensure safe work practices are followed</p> <p>2.4 Support members of the work group to accurately record incidents and complete associated workplace documentation according to workplace procedures</p>
3. Contribute to health and safety processes	<p>3.1 Raise health and safety issues in accordance with workplace procedures</p> <p>3.2 Contribute to workplace meetings, workplace inspections or other consultative activities in a constructive manner to improve safety</p> <p>3.3 Identify roles and responsibilities of health and safety representatives and committees</p>
4. Contribute to hazard identification, risk assessment and risk control activities	<p>4.1 Identify and respond to hazards, and communicate as required with members of the work group</p> <p>4.2 Report identified hazards and inadequacies in risk controls</p> <p>4.3 Check the workplace for hazards using itemised checklists in accordance with work procedures</p> <p>4.4 Contribute to risk assessments in accordance with workplace procedures</p>



Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	4.5 Provide input to development and implementation of control measures, with reference to the hierarchy of control
5. Participate in the control of emergency situations	5.1 Identify and respond appropriately to emergency signals and alarms 5.2 Take initial action to control an emergency according to workplace procedures 5.3 Implement emergency response procedures within scope of training and competence
6. Maintain and use health and safety records	6.1 Complete records for the work area in accordance with legislative and enterprise requirements 6.2 Access and interpret health and safety information to inform work practice

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"> <li>Analyse and consolidate health and safety information from a range of sources for implementation</li> </ul>
Writing	<ul style="list-style-type: none"> <li>Accurately record information, complete forms and prepares basic reports using clear language according to organisational practices</li> </ul>
Oral communication	<ul style="list-style-type: none"> <li>Clearly explain and present safety information using language, tone and pace appropriate to audience</li> </ul>
Interact with others	<ul style="list-style-type: none"> <li>Cooperate with others and contributes to work practices where joint health and safety outcomes are expected</li> </ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status

FBPWHS3001 Contribute to work health and safety processes	FDFOHS3001A Contribute to OHS processes	Updated to meet Standards for Training Packages  Minor changes to Performance Criteria to clarify intent  Minor change to title and code to reflect current industry terminology  Foundation skills added	Equivalent unit
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## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# Assessment Requirements for FBPWHS3001 Contribute to work health and safety processes

## Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

## Performance Evidence

An individual demonstrating competency must satisfy all of the elements and performance criteria in this unit.

There must be evidence that the individual has contributed effectively to work health and safety processes on at least two separate occasions, including:

- identifying and assessing potential hazards in work activities
- monitoring implementation of safe work practices in the workplace
- providing advice and feedback to work group members
- contributing to the development and implementation of control measures
- completing health and safety records and reports according to workplace procedures.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- Commonwealth, state or territory legislation, regulations, standards, codes of practice and industry standards/guidance notes relevant to own work, role and responsibilities
- safety signs and their meanings, including signs for:
  - personal protective equipment (PPE)
  - emergency equipment
  - dangerous goods class signs
  - specific hazards such as sharps, radiation
  - the difference between hazard and risk
- sources of health and safety information (internal and external)
- nature of common workplace hazards, including chemicals, bodily fluids, noise, manual handling, work postures, underfoot hazards and moving parts of machinery
- basic hazard identification procedures, including workplace inspections and review of workplace data
- standard emergency signals, alarms and required responses

- principles of basic risk assessment
- hierarchy of control and its application
- PPE requirements, including use, storage and maintenance
- roles and responsibilities of employees, supervisors and managers in the workplace
- roles and responsibilities of health and safety representatives and committees
- potential consequences of non-compliance and failing to follow safe work practices
- workplace specific information, including:
  - hazards of the particular work environment
  - hazard identification procedures relevant to the hazards in their workplace
  - designated person with whom to raise health and safety issues
- potential emergency situations, alarms and signals and required response.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - skills must be demonstrated in a workplace setting or an environment that accurately represents a real workplace
- resources, equipment and materials:
  - scenarios or case studies for simulated emergency responses
- specifications:
  - health and safety legislation, regulations and codes of practice
- relationships:
  - interactions with work group members.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## FBPWHS4002 Maintain work health and safety processes

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package version 2.0.

### Application

This unit of competency describes the skills and knowledge required to monitor the workplace health and safety policies, procedures and programs, in order to meet legislative requirements.

It applies to individuals with supervisory responsibilities for monitoring the health and safety policies, procedures and programs of the workplace. Work typically involves addressing their own safety, as well as that of others.

All work must be carried out to comply with workplace procedures, in accordance with State/Territory work health and safety, and food safety regulations, legislation and standards that apply to the workplace.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

### Pre-requisite Unit

Nil

### Unit Sector

Work health and safety (WHS)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Provide information to work group	1.1 Explain relevant requirements of health and safety legislation, standards, codes of practice/compliance codes, guidance material and safe working procedures and practices to the work group 1.2 Provide information on workplace policies and procedures to the

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	<p>work group</p> <p>1.3 Explain roles and responsibilities of workplace health and safety representatives and committees, supervisors and managers</p> <p>1.4 Provide information on hazards, the outcomes of risk assessments, and required risk controls to the work group, in an accessible format</p>
2. Ensure others are able to implement safe work practices	<p>2.1 Ensure personal protective equipment (PPE) appropriate to the work is available and functional</p> <p>2.2 Ensure processes are implemented to identify hazards, and assess risks and required risk controls</p> <p>2.3 Ensure work group members follow safe work practices, and workplace policies and procedures</p> <p>2.4 Identify health and safety training needs and respond according to workplace procedures</p>
3. Implement participative processes	<p>3.1 Consult with and provide advice to work group in relation to health and safety matters relevant to their work</p> <p>3.2 Deal with health and safety issues promptly, and in accordance with workplace procedures and legislative requirements</p> <p>3.3 Record and promptly communicate outcomes of health and safety consultation to the work group</p>
4. Monitor compliance with workplace procedures	<p>4.1 Check work procedures are available, accessible and fit for purpose</p> <p>4.2 Monitor and rectify deviations from procedures according to workplace procedures</p> <p>4.3 Evaluate hazard identification and reporting processes for effectiveness and address any deficiencies according to workplace procedures</p> <p>4.4 Monitor housekeeping activities to ensure that workplace standards are maintained, taking action to address any deficiencies</p> <p>4.5 Ensure work group behaviour is consistent with safe working procedures and practices</p>
5. Implement hazard identification, risk assessment and risk control procedures	<p>5.1 Identify, assess and eliminate hazards and report on residual risk</p> <p>5.2 Conduct risk assessments in accordance with workplace procedures</p> <p>5.3 Develop control measures, taking into account the hierarchy of</p>

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	<p>control</p> <p>5.4 Implement and support outcomes of risk assessments and identify risk controls</p> <p>5.5 Identify issues with risk controls and respond according to workplace policies and procedures</p> <p>5.6 Identify limitations of job role and seek expert advice as required</p>
6. Implement workplace procedures for maintaining records	<p>6.1 Obtain feedback to ensure that workgroup is aware of workplace reporting requirements</p> <p>6.2 Review health and safety records to confirm that they are accurate and completed in a timely manner, in accordance with legislative and organisation requirements</p> <p>6.3 Use aggregate information and data from records to identify hazards and monitor risk controls</p>
7. Implement emergency procedures	<p>7.1 Obtain feedback to ensure that emergency procedures are accessible and understood by the work group</p> <p>7.2 Implement processes to ensure that emergency equipment is available and routinely checked for functionality</p> <p>7.3 Ensure workgroup members are able to respond appropriately to emergencies</p> <p>7.4 Conduct or contribute to investigations in order to identify causes of emergencies</p> <p>7.5 Identify, implement or support control measures to prevent recurrence and minimise risk of emergencies</p>

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"> <li>Analyse documentation from a variety of sources</li> </ul>
Writing	<ul style="list-style-type: none"> <li>Develop procedural material for a specific audience, using clear</li> </ul>

Skill	Description
	language appropriate to audience <ul style="list-style-type: none"> <li>• Write, edit and proofread documents to ensure clarity, accuracy and consistency of information</li> </ul>
Oral communication	<ul style="list-style-type: none"> <li>• Use collaborative and inclusive techniques including active listening and questioning to convey and clarify safety information</li> </ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPWHS4002 Maintain work health and safety processes	FDFOHS4002A Maintain OHS processes	Updated to meet Standards for Training Packages  Minor change to title to reflect current industry terminology  Minor changes to Performance Criteria to clarify outcomes  Foundation skills added	Equivalent unit

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>



## Assessment Requirements for FBPWHS4002 Maintain work health and safety processes

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package version 2.0.

### Performance Evidence

An individual demonstrating competency must satisfy all of the elements and performance criteria in this unit.

There must be evidence that the individual has maintained work health and safety processes for a work group of at least three members, on at least one occasion, including:

- accessing and interpreting health and safety information, including legislation, guidance material and benchmarks
- communicating clearly and accurately with work group members, other technicians/specialists, managers and expert advisers
- ensuring work group is provided with safety equipment, information and training on safe work practices
- consulting with work groups and documenting safe work practices
- reviewing and maintaining work procedures to ensure compliance with safety policies
- identifying and addressing hazards and assessing risk by developing and implementing risk control measures
- monitoring work practices and identifying and addressing non-compliances
- contributing to investigations and consultative processes
- completing and maintaining health and safety records
- implementing and reviewing emergency procedures.

### Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- the difference between hazard and risk
- sources of health and safety information both internal and external to the workplace
- general duty requirements of health and safety legislation and also regulatory requirements relevant to the particular industry/type of work site
- the roles and responsibilities of employees, supervisors and managers in the workplace

- nature of common workplace hazards, such as chemicals, noise, manual handling, work postures, underfoot hazards and moving parts of machinery
- guidance material, including codes of practice/compliance codes relevant to the particular industry/type of work site
- hazard identification procedures, such as workplace inspections and review of workplace data
- principles of risk management including the hierarchy of control and its application
- personal protective equipment requirements, including use, storage and maintenance
- legislative requirements for record keeping and reporting
- standards and guidelines related to emergency procedures
- roles and responsibilities of health and safety representatives and committees
- workplace specific information, including:
  - hazards of the particular work environment
  - hazard identification procedures relevant to the hazards in the work place
  - risk controls for specific hazards
  - designated person for raising health and safety issues
  - workplace procedures related to health and safety, including hazard, incident and injury reporting, hazard identification, risk assessment and control, consultation and participation, incident investigation and record keeping
  - workplace procedures related to the work of the group, including use of personal protective equipment and emergency response
  - potential emergency situations, alarms and signals and required response.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - skills must be demonstrated in a workplace setting or an environment that accurately represents a real workplace
- resources, equipment and materials:
  - access to health and safety advice and direction
- specifications:
  - legislation, regulations, standards and codes of practice
  - workplace policies and procedures for health and safety, and for emergencies
- relationships (internal and/or external):
  - access to a work group of at least three members.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## AHCBA204 Prepare grain storages

### Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

### Application

This unit of competency describes the skills and knowledge required to safely prepare storages, surrounding areas and equipment in readiness for receiving grain at an acceptable level of hygiene. This unit applies to workers in specialist grain storages or on grain farms.

All work must be carried out to comply with workplace procedures, work health and safety and biosecurity legislation and codes, and sustainability practices.

This unit applies to individuals who work under general supervision and exercise limited autonomy with some accountability for own work. They undertake defined activities and work in a structured context.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication. However, all work in confined spaces must comply with state and federal legislation requirements.

### Pre-requisite Unit

Nil.

### Unit Sector

Broad acre cropping (BAC)

### Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.

Element	Performance criteria
1. Prepare to work in bulk material storage area	1.1 Follow the work program and clarify with supervisor 1.2 Identify work health and safety hazards in grain storage and report to supervisor and implement suitable controls 1.3 Select, use and maintain suitable personal protective equipment 1.4 Select, prepare and maintain appropriate equipment and tools
2. Prepare storage area	2.1 Clean the storage site of weeds, dust and spillage appropriately 2.2 Dispose refuse appropriately 2.3 Prepare and maintain the storage site appropriately
3. Prepare storages	3.1 Clean bulk material storages appropriately of all residues 3.2 Check bulk material storages for structural safety, damage or deterioration, and repaired or reported appropriately 3.3 Prepare and erect temporary storages appropriately
4. Prepare bulk material handling machinery	4.1 Clean bulk material handling machinery appropriately to be free of contamination and residues 4.2 Assist in the adjustment and setting bulk material handling equipment appropriately 4.3 Prepare bulk material handling equipment according to manufacturer's instructions and enterprise requirements
5. Complete maintenance operation	5.1 Record workplace information 5.2 Dispose of all waste and debris according to enterprise policies and minimising the impact on the environment 5.3 Clean and store tools and equipment appropriately 5.4 Apply enterprise biosecurity policies

## Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

## Range of Conditions

## Unit Mapping Information

This unit is equivalent to AHCBA204A Prepare grain storages.

## Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

# Assessment Requirements for AHCBA204 Prepare grain storages

## Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

## Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- identify hazards and follow safe work procedures
- erect simple temporary bulk material storages
- check equipment and storage facilities, and identify current or impending faults
- perform pre-operational checks and routine safety, service and maintenance procedures on tools, equipment and machinery
- operate hand and independently powered tools and cleaning equipment to industry standards
- clean, secure and store machinery and equipment
- handle hazardous substances (fuels) safely
- read and interpret manufacturer's specifications, work and maintenance programs, and Safety Data Sheets (SDS)
- prepare the storage area for access by grain carriers
- prepare grain storages by removing all residues and checking structure
- work in confined spaces in accordance with State/Territory legislation, where required
- prepare and test grain handling machinery
- communicate with supervisor
- follow enterprise work health and safety policies in the context of own work
- follow enterprise biosecurity policies the context of own work.

## Knowledge Evidence

The candidate must demonstrate knowledge of:

- range of construction methods, potential hazards, safety and structural requirements for storage

- erection and dismantling for types of temporary storage used by organisation
- organisation and commodity quality requirements for grain storage
- grain storage hygiene requirements
- typical signs of structural damage to be documented and reported
- pre-operational and safety checks, servicing and maintenance procedures for tools and equipment
- machinery maintenance procedures and operating principles
- machinery and equipment cleaning, storage and protection methods
- appropriate action in contingency situations
- organisation requirements for protective equipment and safe practices in relation to work health and safety
- State/Territory legislation in respect to working in confined spaces
- potential hazards associated with the operation of basic tools and equipment
- regulations and codes of practice with regard to work health and safety, environment and the use and control of machinery and equipment
- personal protective clothing and equipment and when and how it should be used
- organisational recording and reporting procedures.

## Assessment Conditions

Competency is to be assessed in the workplace or simulated environment that accurately reflects performance in a real workplace setting.

Assessors must satisfy current standards for RTOs.

## Links

Companion Volume implementation guides are found in VETNet -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>



## AHCCHM101 Follow basic chemical safety rules

### Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

### Application

This unit of competency describes the skills and knowledge required to perform a work role that uses chemicals and requires awareness of their use.

All work must be carried out to comply with workplace procedures, work health and safety and pesticide legislation and codes.

This unit applies to individuals who undertake defined routine activities alongside a supervisor in most situations. They exercise limited autonomy within established and well known parameters and identify and seek help with simple problems.

The skills and knowledge described in this unit underpin a broad range of activities applicable to various job roles at various levels.

Licensing, legislative, regulatory or certification requirements may apply to this unit. Candidates should confirm the regulatory requirements that apply in their relevant State or Territory before undertaking this unit.

### Pre-requisite Unit

Nil.

### Unit Sector

Chemicals (CHM)

## Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Prepare to work with chemicals	1.1 Confirm the activity to be undertaken with the supervisor 1.2 Take steps to control risks as directed 1.3 Confirm tools and equipment to be used with supervisor 1.4 Wear appropriate personal protective equipment and ensure correct fit as directed by supervisor
2. Identify risks associated with chemicals	2.1 Identify functions of chemicals in the workplace 2.2 Identify chemical labels, safety signs and symbols, Safety Data Sheets (SDS) 2.3 Report safety hazards to supervisor 2.4 Identify and locate chemical storage locations 2.5 Recognise and observe instructions for transport, handling and storage of chemicals 2.6 Recognise and observe instructions for maintenance and storage of personal protective equipment and application equipment
3. Follow chemical handling and storage rules	3.1 Follow chemical handling and storage instructions as per labels 3.2 Follow safety rules when working in areas where chemicals are stored 3.3 Follow emergency procedures in the event of an accident or spillage 3.4 Record information as directed by supervisor

## Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

## Range of Conditions

## Unit Mapping Information

This unit is equivalent to AHCCHM101A Follow basic chemical safety rules.

## Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

## Assessment Requirements for AHCCHM101 Follow basic chemical safety rules

### Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

### Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- locate and follow safety information on chemical labels and relevant Safety Data Sheets (SDS)
- recognise caution or hazard signs and symbols
- recognise hazards and risks associated with chemical handling and use
- use appropriate personal protective equipment
- follow emergency procedures during an accident or spillage
- communicate effectively with supervisor such as raising issues of concern
- record information accurately
- apply enterprise work health and safety procedures

### Knowledge Evidence

The candidate must demonstrate knowledge of:

- occupational health and safety rules required to work near and around chemicals
- level of hazard and Poisons Schedule in the relevant State or Territory
- types of chemicals used for the control of pests, weeds and diseases
- personal protection equipment and when and how it should be used, stored and maintained
- environmental impacts of chemical use
- roles and responsibilities for using and managing pesticides within the workplace
- relevant work health and safety, pesticide and environmental legislation

## Assessment Conditions

Competency is to be assessed in the workplace OR simulated environment that accurately reflects performance in a real workplace setting.

Assessors must satisfy current standards for RTOs.

## Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

## AHCCHM201 Apply chemicals under supervision

### Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

### Application

This unit of competency describes the skills and knowledge required to apply chemicals using workplace specific application equipment under supervision.

All work must be carried out to comply with workplace procedures, work health and safety and pesticide legislation and codes.

This unit applies to individuals who undertake defined routine activities alongside a supervisor in most situations. They exercise limited autonomy within established and well known parameters and identify and seek help with simple problems.

The skills and knowledge described in this unit underpin a broad range of activities applicable to various job roles at various levels.

Licensing, legislative, regulatory or certification requirements may apply to this unit. Candidates should confirm the regulatory requirements that apply in their relevant State or Territory before undertaking this unit.

### Pre-requisite Unit

Nil.

### Unit Sector

Chemicals (CHM)

## Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Prepare to work	1.1 Confirm the activity to be undertaken with supervisor, including identifying potential hazards and risks 1.2 Take steps to control risks as directed 1.3 Confirm tools and equipment to be used with supervisor 1.4 Wear appropriate personal protective equipment as per label instructions and ensure correct fit
2. Check application equipment	2.1 Carry out pre-operational checks of application equipment and identify and replace any damaged or worn components or report to supervisor 2.2 Prepare application equipment for use
3. Prepare application equipment	3.1 Follow all label instructions for the chemical or substance being used 3.2 Use appropriate mixing equipment 3.3 Check that output of application equipment is correct 3.4 Measure, mix and load chemical mix or substances 3.5 Confirm instructions from chemical label and supervisor in the event of a spill 3.6 Check that output of application equipment is correct and in accordance with application/spray plan.
4. Apply chemicals	4.1 Assess and record meteorological conditions and forecasts prior to and during application where relevant 4.2 Cease application if conditions become unsuitable 4.3 Apply chemical ensuring minimal risk to others and the environment 4.4 Minimise risks to others, product integrity and the environment prior to and during application
5. Transport and handle chemicals	5.1 Confirm precautions for the transport and handling of chemicals with supervisor 5.2 Transport and handle chemicals in accordance with relevant commonwealth, state and territory chemical legislation
6. Finalise work	6.1 Clean and store personal protective equipment and application equipment in accordance with manufacturers and work health and safety requirements 6.2 Dispose of excess chemicals and clean containers in accordance with label instructions and regulatory requirements 6.3 Complete incident reports as required

Element	Performance criteria
	6.4 Complete application records 6.5 Store unused chemical and products in appropriate location 6.6 Adhere to all re-entry requirements

## Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

## Range of Conditions

## Unit Mapping Information

This unit is not equivalent to AHCCHM201A Apply chemicals under supervision.

## Links

Companion Volume implementation guides are found in VETNet -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>



# Assessment Requirements for AHCCHM201 Apply chemicals under supervision

## Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

## Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- identify hazards and adopt safe work practices
- follow directions on chemical labels and relevant Safety Data Sheets SDS
- carry out pre-operational checks of application equipment
- measure, mix and load chemical mixes
- safely apply chemical under supervision
- report spillages, accidents or deficiencies in procedures and practices to supervisor
- use appropriate personal protective equipment
- follow emergency procedures during an accident or spillage
- follow enterprise work health and safety procedures
- safely dispose of chemicals
- record relevant information, including amount of chemical applied as per commonwealth, state and territory chemical legislation

## Knowledge Evidence

The candidate must demonstrate knowledge of:

- relevant commonwealth, state and territory legislation
- various transport and handling techniques and requirements
- layout and information contained in chemical labels and SDS
- features and functions of a range of application equipment relevant to the role
- risk factors to be taken into account such as human and animal health, spillage and environmental

- different broad chemical types such as insecticides, herbicides and fungicides and their mode of action symbols on the label
- paths of entry of poisons into the body and the methods of limiting exposure
- how to assess if weather conditions increase risks and when it becomes unsuitable for application to continue
- relevant applied principles of Integrated Pest and Resistance Management
- relevant parts of the workplace spray plan

## Assessment Conditions

Competency is to be assessed in the workplace OR simulated environment that accurately reflects performance in a real workplace setting.

Assessors must satisfy current standards for RTOs.

## Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

## AHCCHM304 Transport and store chemicals

### Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

### Application

This unit of competency describes the skills and knowledge required to safely transport, handle and store liquid and dry chemical formulations across a broad range of industry sectors.

This unit does not cover operation of specialised chemical application equipment and machinery or application of chemicals.

All work must be carried out to comply with workplace procedures, work health and safety and pesticide legislation and codes. All work is carried out to comply with Safety Data Sheets, chemical label directions and relevant legislative requirements.

This unit applies to individuals who work under broad direction and take responsibility for their own work and use discretion and judgement in the selection and use of available resources.

Licensing, legislative, regulatory or certification requirements may apply to this unit. Confirm the regulatory requirements that apply in the relevant State or Territory.

This unit may be deemed to have a time limit when used as part of an accreditation or licencing process.

### Pre-requisite Unit

Nil.

### Unit Sector

Chemicals (CHM)

## Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Prepare to transport and handle chemicals	1.1 Identify hazards, assess risks and implement control measures 1.2 Confirm contact phone numbers of emergency services are carried in vehicle in case of accident, spill or fire 1.3 Confirm chemicals will be transported in a vehicle that is compliant with the relevant legislation. 1.4 Confirm containers are secured in the tray, protected from the weather and in a sound condition to transport 1.5 Confirm appropriate first aid kit is carried in the vehicle in case of accident, spill or fire 1.6 Confirm transport arrangements meet legislative and regulatory requirements for the transport of hazardous substances and dangerous goods. 1.7 Obtain current Safety Data Sheets (SDS) from reseller or manufacturer for all chemicals to be transported
2. Transport and handle chemicals	2.1 Follow instructions from chemical SDS, to comply with transport requirements 2.2 Follow instructions from chemical label and SDS in the event of a spill or accident 2.3 Report transport incidents as required
3. Store chemicals in the workplace	3.1 Select and use appropriate personal protective equipment and ensure correct fit 3.2 Use appropriate storage methods as per label and Safety Data Sheet requirements and work health and safety standards 3.3 Maintain storage area according to legislative and regulatory requirements, including work health and safety and environmental protection. 3.4 Retain products in original containers with labels intact 3.5 Utilise storage methods to prevent contact with people or animals and contamination of produce or the environment 3.6 Apply correct disposal procedures for used chemical drums and storage containers as per the label and industry programs 3.7 Dispose of unwanted and out-of-date chemicals in the appropriate manner according to legislative and regulatory requirements and industry programs
4. Record storage details	4.1 Maintain chemical storage inventory and records according to legislative requirements

Element	Performance criteria
	4.2 Report storage incidents according to legislative requirements

## Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

## Range of Conditions

## Unit Mapping Information

This unit is equivalent to AHCCHM304A Transport, handle and store chemicals.

## Links

Companion Volume implementation guides are found in VETNet -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

# Assessment Requirements for AHCCHM304 Transport and store chemicals

## Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

## Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- follow legislative requirements for the safe transport of chemicals
- follow emergency procedures for chemical spillage
- handle, transport and store chemical safely
- maintain a chemical storage area and chemical manifest, including copies of SDS for each product
- follow chemical label directions and SDS requirements for handling, transporting and storage
- maintain storage records
- follow enterprise work health and safety policies
- follow enterprise environmental protection policies

## Knowledge Evidence

The candidate must demonstrate knowledge of:

- how to read a chemical label and SDS and translate that information into actions
- appropriate legislation and regulations that apply to transporting and storing chemicals
- risk factors including human and animal health and environmental associated with transporting, handling and storing chemicals
- requirements for disposal of excess, unwanted and out-of-date chemicals and used chemical containers
- processes to clear spillages and clean up
- types of placarding required for storage of hazardous chemicals and dangerous goods
- types of emergency information that must be carried in the vehicle when transporting dangerous goods

## Assessment Conditions

Competency is to be assessed in the workplace OR simulated environment that accurately reflects performance in a real workplace setting.

Assessors must satisfy current standards for RTOs.

## Links

Companion Volume implementation guides are found in VETNet -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

## AHCCHM307 Prepare and apply chemicals to control pest, weeds and diseases

### Modification History

Release	Comments
Release 1	This version released with AHC Agriculture, Horticulture and Conservation and Land Management Training Package Version 3.0.

### Application

This unit of competency describes the skills and knowledge required to safely prepare and apply chemicals for the control of pests, weeds and diseases, using general application equipment.

The unit applies to individuals who work under broad direction and take responsibility for their own work. They use discretion and judgement in the selection, allocation and use of available resources and for solving problems.

State or territory licensing, legislative or certification requirements apply in some jurisdictions.

### Pre-requisite Unit

Nil

### Unit Sector

Chemicals (CHM)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Determine the need for chemical use and prepare an application plan	1.1 Identify the pest, weed or disease, and assess the need for control 1.2 Assess the requirement for chemical use 1.3 Assess health and safety hazard, risks and controls for different chemicals



Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	<p>1.4 Confirm requirement for chemical application according to workplace procedures</p> <p>1.5 Assess off target risk of each application method</p> <p>1.6 Assess the environmental risk for application method</p> <p>1.7 Notify stakeholders of intended chemical application according to workplace procedures and legislative and regulatory requirements</p> <p>1.8 Prepare application plan according to workplace procedures</p>
2. Prepare chemical mixes	<p>2.1 Identify and select chemical required for target according to application plan</p> <p>2.2 Calculate the volume, rate or dose according to chemical label instructions</p> <p>2.3 Identify and select application equipment and set-up requirements according to application plan and operator instructions</p> <p>2.4 Identify hazards, assess risks and implement control measures for application method according to chemical label and health and safety in the workplace procedures</p> <p>2.5 Identify, select, fit and use personal protective equipment (PPE) according to workplace procedures</p> <p>2.6 Select appropriate mixing equipment and suitable location to prepare and load chemicals according to workplace procedures</p> <p>2.7 Prepare chemicals according to chemical label instructions</p> <p>2.8 Return unused chemical to store and clean preparation equipment and work site of residues and spillage according to chemical label instructions and workplace procedures</p>
3. Calibrate application equipment	<p>3.1 Select application equipment for chemical according to application plan, off target risks and workplace procedures</p> <p>3.2 Conduct pre-operational checks of application equipment according to operator and maintenance manual</p> <p>3.3 Calibrate equipment according to operating instructions and application plan</p> <p>3.4 Load equipment with chemical according to operating instructions and workplace safety procedures</p>
4. Apply chemicals	<p>4.1 Monitor and assess weather conditions and forecasts to ensure effective chemical application according to application plan</p>

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	<p>4.2 Select, ensure serviceability, fit and use PPE according to chemical label instructions and workplace procedures</p> <p>4.3 Apply chemical according to label directions and application plan relating to the control of the pest, weed or disease</p> <p>4.4 Monitor application equipment for correct performance and ensure effective chemicals application according to operating instructions</p> <p>4.5 Identify health and safety in the workplace hazards and risks and implement controls</p> <p>4.6 Clean up spills during application according to chemical label instructions and workplace procedures</p>
5. Clean up equipment and complete records	<p>5.1 Clean and decontaminate application equipment according to operator instructions, safety data sheets (SDS) and legislative requirements</p> <p>5.2 Dispose of chemicals and used containers according to chemical label instructions, SDS and legislative requirements</p> <p>5.3 Clean and store PPE according to workplace procedures</p> <p>5.4 Record and report safety and environmental incidents according to workplace procedures and regulatory requirements</p> <p>5.5 Record details of chemical application according to workplace procedures and legislative requirements</p>

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"> <li>Read and interpret SDS, chemical labels, operating instruction and other documentation and consolidates information to determine chemical application actions and activity</li> </ul>
Writing	<ul style="list-style-type: none"> <li>Accurately record and complete organisational records using clear language and terminology</li> </ul>
Numeracy	<ul style="list-style-type: none"> <li>Perform mathematical calculations to determine rates of application chemical mixtures and calibration of equipment</li> </ul>

Skill	Description
Navigate the world of work	<ul style="list-style-type: none"><li>• Take responsibility for following policies, procedures and regulations</li><li>• Identify and implement chemical label requirements</li></ul>
Get the work done	<ul style="list-style-type: none"><li>• Take responsibility for planning, sequencing and prioritising tasks required for chemical application activities</li></ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
AHCCHM307 Prepare and apply chemicals to control pest, weeds and diseases	AHCCHM303 Prepare and apply chemicals	Minor change of title for clarity  Minor changes to Performance Criteria for clarity  Updated Performance Evidence and Knowledge Evidence	Equivalent unit

## Links

Companion Volumes, including Implementation Guides, are available at VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

## Assessment Requirements for AHCCHM307 Prepare and apply chemicals to control pest, weeds and diseases

### Modification History

Release	Comments
Release 1	This version released with AHC Agriculture, Horticulture and Conservation and Land Management Training Package Version 3.0.

### Performance Evidence

An individual demonstrating competency must satisfy all of the elements and performance criteria in this unit. There must be evidence that the individual has on at least one occasion demonstrated the ability to safely prepare and apply chemicals ensuring they have:

- determined and confirmed the need for chemical application by assessing the infestation, off target risk, and environmental risks
- developed an application plan for chemical application
- identified health and safety hazards, risk and implemented control procedures according to chemical label
- notified stakeholders of planned chemical application
- used personal protective equipment (PPE) according to workplace procedures
- interpreted chemical labels and applied chemical according to safety data sheets (SDS) and application plan
- identified and selected the chemical required for the target and calculated the amount and rates required according to chemical label
- identified and selected application equipment and suitable location, and determined the set up parameters according to application plan and operator instructions
- monitored and assessed weather conditions and equipment performance to ensure effective chemical application
- selected, conducted pre-operational checks according to operator and maintenance manual
- completed at least one calibration activity for application equipment
- prepared and loaded chemicals and returned unused chemicals to store in accordance with label, application plan and workplace procedures
- applied chemicals safely according to chemical labels, regulations and workplace procedures
- complied with chemical labels, SDS, regulations, maintenance manual, environmental procedures, operator instructions and application plan
- cleaned equipment and spills, and disposed of waste according to workplace and environmental procedures

- maintained records and reported incidents according to workplace procedures and regulatory requirements.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- control options when selecting chemicals for pests, diseases and weeds infestations, including:
  - chemical
  - mechanical
  - cultural
  - biological
  - integrated pest management including resistance management principles
- types of pest, diseases and weed their treatment and resistance
- legal implications and requirements of chemical labels and SDS
- stakeholders and required notifications including, neighbours, staff and statutory notifications
- impact of weather factors on the safe and effective application of chemicals
- characteristics of chemicals, their mode of action and relevance to chemical selection and use, including:
  - translocated/systemic
  - contact
  - ingested poison
  - protectant
  - eradicant
  - knock-down
  - residual
  - selective/non selective
- factors that contribute to off target damage, including:
  - physical movement of chemicals (e.g. animals moving baits or soil movement)
  - chemical formulation
  - wind speed and direction
  - temperature and relative humidity
  - temperature inversions
  - controlling off target damage
  - rainfall
  - buffer zones and barriers
- hazards of chemical application, including:
  - human and animal health
  - environmental contamination

- residues in environment, plants and animals
- withholding/re-entry periods
- safety requirements when applying chemicals, including:
  - procedures
  - PPE
  - signage
- safe handling, transporting and storage of chemicals
- preparing chemicals including preparation, compatibility, adjuvants and water quality
- requirements for disposal of excess chemicals, clearing spillages and equipment clean up
- selecting and operating suitable application equipment
- features, functions and calibration techniques for powered and hand held application equipment, including:
  - pressure and volume of chemical
  - travel speed
  - nozzle identification, selection, operation
- legislation, regulations and licensing requirements in relation to chemical use.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - skills must be demonstrated in a typical workplace environment or an environment that accurately represents workplace conditions
- resources, equipment and materials:
  - chemicals
  - PPE
  - application equipment
  - chemical measuring and mixing equipment
- specifications:
  - specific workplace documents, including work instructions and procedures for chemical application
  - chemical labels and SDS
  - regulations about use of chemicals
  - manufacturers' operation and maintenance instructions for equipment
  - access to weather forecasts or means to measure local weather.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volumes, including Implementation Guides, are available at VETNet -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

## AHCIRG215 Assist with low volume irrigation operations

### Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

### Application

This unit of competency covers the skills and knowledge required to assist with installing, operating and maintaining low volume irrigation systems. These systems use emitters such as drippers and generally use poly pipe.

It applies to individuals who work under general supervision and exercise limited autonomy with some accountability for their own work. They undertake defined activities and work in a structured context.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

### Pre-requisite Unit

Nil.

### Unit Sector

Irrigation (IRG)

### Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Prepare for work	1.1 Confirm work instructions with supervisor 1.2 Select appropriate materials, tools, equipment and machinery 1.3 Select personal protective equipment and clothing and ensure correct fit



Element	Performance criteria
	1.4 Identify manual handling and other workplace health and safety hazards 1.5 Identify the site for installation of the irrigation system
2. Install irrigation components	2.1 Prepare the site for installation works 2.2 Assemble and connect system components and test joints 2.3 Connect system to water supply 2.4 Flush and commission system 2.5 Identify and report operating and take corrective actions as directed 2.6 Maintain a clean and safe work area
3. Complete installation work	3.1 Remove waste material from the site and dispose of 3.2 Clean, maintain and store tools, equipment and machinery 3.3 Flush and commission system
4. Carry out start up and shutdown procedures as directed	4.1 Follow start-up sequence 4.2 Shut down system components in sequence 4.3 Drain system 4.4 Record irrigation activity
5. Assist with system maintenance	5.1 Check emitters for serviceability and output 5.2 Maintain delivery components 5.3 Check water supply and pumping system periodically, where required 5.4 Keep maintenance records up to date

## Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

## Range of Conditions

## Unit Mapping Information

New unit - no equivalent.

## Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

## Assessment Requirements for AHCIRG215 Assist with low volume irrigation operations

### Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

### Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- assemble and join irrigation system components
- carry out basic maintenance tasks
- carry out low volume irrigation operating tasks
- complete installation work
- fix identified faults
- follow directions to operate pumps, filters and valves
- install irrigation components
- look for leaks and faulty emitters
- prepare materials, tools and equipment
- recognise and report faults
- undertake site preparation tasks as directed

### Knowledge Evidence

The candidate must demonstrate knowledge of:

- principles and practice of low volume irrigation operation
- characteristics and operation of joints, valves and emitter components
- components in low volume irrigation systems
- emitter spacing, coverage and pressure
- indicators of over and under watering
- installation techniques and procedures
- irrigation controllers
- irrigation pipes, types and sizes

- irrigation times to deliver sufficient volume without over watering
- methods and techniques of low volume irrigation installation
- operation of low volume irrigation system
- set out procedures
- system malfunctions and their likely causes
- use of recycled water and colour coding of pipes
- water requirements of relevant plants

## Assessment Conditions

Assessors must satisfy current standards for RTOs.

## Links

Companion Volume implementation guides are found in VETNet -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

## AHCIRG217 Assist with pressurised irrigation operations

### Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

### Application

This unit of competency covers the skills and knowledge required to assist installing, operating and maintaining pressurised irrigation systems. These systems use sprinklers and generally use glued PVC pipe.

This unit applies to individuals who work under general supervision and exercise limited autonomy with some accountability for their own work. They undertake defined activities and work in a structured context.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

### Pre-requisite Unit

Nil.

### Unit Sector

Irrigation (IRG)

### Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Prepare for work	1.1 Confirm work instructions with supervisor 1.2 Select appropriate materials, tools, equipment and machinery 1.3 Select personal protective equipment and clothing and ensure correct fit

Element	Performance criteria
	1.4 Identify manual handling and other work health and safety hazards 1.5 Identify the site for installation of the irrigation system
2. Install irrigation components	2.1 Prepare the site for installation works 2.2 Lay irrigation components out 2.3 Dig or tidy trenches where required 2.4 Add or insert system components 2.5 Position and secure lines 2.6 Assist with fitting pumps and valves
3. Complete installation activities	3.1 Check the irrigation system for leaks or blockages 3.2 Identify and report problems and anomalies 3.3 Clean and store equipment, tools and materials 3.4 Collect waste and dispose of or recycle 3.5 Record workplace information in the appropriate format
4. Carry out start up and shutdown procedures as directed	4.1 Follow start-up sequence 4.2 Shut down system components in sequence 4.3 Drain system 4.4 Record irrigation activity
5. Assist with system maintenance	5.1 Check sprinklers for serviceability and output 5.2 Maintain delivery components 5.3 Check water supply and pumping system periodically, where required 5.4 Keep maintenance records up to date

## Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

## Range of Conditions

## Unit Mapping Information

New unit - no equivalent.

## Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

## Assessment Requirements for AHCIRG217 Assist with pressurised irrigation operations

### Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

### Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- assemble and join irrigation system components
- carry out basic maintenance tasks
- carry out irrigation operating tasks
- complete installation work
- fix identified faults
- follow directions to operate pumps, filters and valves
- look for leaks and faulty sprinklers
- prepare materials, tools and equipment
- recognise and report faults
- undertake site preparation tasks as directed

### Knowledge Evidence

The candidate must demonstrate knowledge of:

- principles and practices of pressurised irrigation systems
- characteristics and operation of replaceable components of sprinkler irrigation systems
- environmental impacts of irrigation from ground or underground source
- installation techniques and procedures
- irrigation controllers
- irrigation pipes, types and sizes
- irrigation times to deliver sufficient volume without over watering
- operation of pressurised irrigation system
- set out procedures



- signs of stress in plants as well as the signs of over and under watering
- sprinkler irrigation components and their function
- sprinkler spacing, coverage and pressure
- system malfunctions and their likely causes
- types of sprinklers

## Assessment Conditions

Assessors must satisfy current standards for RTOs.

## Links

Companion Volume implementation guides are found in VETNet -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

## AHCIRG325 Operate irrigation technology

### Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

### Application

This unit of competency describes the skills and knowledge required to operate irrigation technology as part of irrigation installation, construction and operation.

It applies to individuals who take responsibility for own work and for the quality of the work of others. They use discretion and judgement in the selection, allocation and use of available resources. All work is carried out to comply with workplace procedures.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

### Pre-requisite Unit

Nil.

### Unit Sector

Irrigation (IRG)

### Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Prepare to work	1.1 Determine work requirements and identify hazards, assess risks and implement control measures 1.2 Select required tools and equipment and check for safe operation and accuracy 1.3 Select and use suitable personal protective equipment

Element	Performance criteria
2. Operate equipment	2.1 Identify sampling points 2.2 Collect samples 2.3 Record and interpret readings and observations
3. Operate irrigation controllers and sensors	3.1 Link sensors to controllers by wiring or radio signals 3.2 Program controllers 3.3 Monitor accuracy and reliability of electronic flow control equipment and calibrate where necessary 3.4 Report discrepancies or malfunctions to management 3.5 Transport and store equipment appropriately

## Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

## Range of Conditions

## Unit Mapping Information

This unit is equivalent to AHCIRG325A Operate irrigation technology.

## Links

Companion Volume implementation guides are found in VETNet -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

# Assessment Requirements for AHCIRG325 Operate irrigation technology

## Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

## Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting.

The candidate must provide evidence that they can:

- check accuracy of and calibrate equipment
- maintain and check irrigation equipment for accuracy
- operate irrigation controllers and sensors
- operate pressure testing equipment
- operate soil moisture testing equipment
- operate technology to measure and monitor the irrigation system or the growing environment
- operate water metering equipment
- operate water testing equipment
- record observations and data
- record the results of testing
- take representative samples for measurement
- take samples for testing

## Knowledge Evidence

The candidate must demonstrate knowledge of:

- data recording procedures
- environmental procedures for use, storage and recycling of electronic equipment and batteries
- equipment maintenance and operation
- irrigation controllers and sensors
- measurement procedures
- operational procedures

- pressure testing equipment
- safe work practices including working with low voltage wiring
- sampling techniques
- soil moisture testing equipment
- water metering equipment
- water testing equipment

## Assessment Conditions

Assessors must satisfy current standards for RTOs.

## Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

# AHCIRG326 Operate irrigation injection equipment

## Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

## Application

This unit of competency describes the skills and knowledge required to operate irrigation injection equipment.

It applies to individuals who take responsibility for own work and for the quality of the work of others. They use discretion and judgement in the selection, allocation and use of available resources. All work is carried out to comply with workplace procedures.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

## Pre-requisite Unit

Nil.

## Unit Sector

Irrigation (IRG)

## Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Prepare equipment for injection operation	1.1 Determine work requirements and identify hazards, assess risks and implement control measures 1.2 Select required tools and equipment and check for safe operation 1.3 Select and use suitable personal protective equipment 1.4 Select materials and services and confirm they are available and

Element	Performance criteria
	ready for operation 1.5 Prepare equipment and materials to meet injection requirements
2. Operate the injection process	2.1 Start up the injection process 2.2 Monitor control points to confirm performance is maintained within specification 2.3 Identify, rectify and report out-of-specification equipment performance 2.4 Deliver injection requirements 2.5 Put emergency procedures in place for spillage or chemical accidents
3. Shut down injection equipment	3.1 Shut down injection equipment 3.2 Clean injection equipment 3.3 Collect, treat, dispose of or recycle waste generated by both the process and cleaning procedures
4. Monitor plant response and environmental impacts of injection	4.1 Monitor plant response to injection 4.2 Record and report environmental hazards of injection 4.3 Maintain withholding periods for chemical application on food crops 4.4 Restrict access to areas where chemicals have been applied through injection if required
5. Record information	5.1 Record workplace information in the appropriate format 5.2 Record chemical application and storage details

## Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

## Range of Conditions

## Unit Mapping Information

This unit is equivalent to AHCIRG326A Operate irrigation injection equipment.

## Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>





# Assessment Requirements for AHCIRG326 Operate irrigation injection equipment

## Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

## Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting.

The candidate must provide evidence that they can:

- complete relevant calculations such as dilution rates
- handle hazardous chemicals safely
- identify injection requirements
- implement routine maintenance and minor repairs of the system
- implement routine system cleaning requirements
- monitor usage and dilution rates
- report and record corrective action
- select and prepare injection materials
- shut down equipment in response to an emergency situation
- shut down equipment in response to routine shutdown requirements
- take corrective action in response to out-of-specification results or non- compliance

## Knowledge Evidence

The candidate must demonstrate knowledge of:

- backflow prevention
- basic operating principles and process control systems where relevant
- chemicals, cleaning agents and fertilisers used for injection and their purpose
- cleaning procedures
- cleaning requirements of system
- common causes of variation and corrective action required
- control points and significance and methods of monitoring
- correct chemical handling techniques
- environmental issues and controls

- label Material Data Safety (MDS) information for substances to be injected
- lock-out and tag-out procedures
- maintenance requirements of system
- procedures for prevention of backflow
- process specifications, procedures and operating parameters
- purpose and operation of equipment and instrumentation components
- recording requirements and procedures
- services required
- shutdown sequence

## Assessment Conditions

Assessors must satisfy current standards for RTOs.

## Links

Companion Volume implementation guides are found in VETNet -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

## AHCIRG327 Implement an irrigation schedule

### Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

### Application

This unit of competency describes the skills and knowledge required to implement an irrigation schedule.

It applies to individuals who take responsibility for own work and for the quality of the work of others. They use discretion and judgement in the selection, allocation and use of available resources. All work is carried out to comply with workplace procedures.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

### Pre-requisite Unit

Nil.

### Unit Sector

Irrigation (IRG)

### Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Interpret the irrigation schedule	1.1 Determine work requirements and identify hazards, assess risks and implement control measures 1.2 Select required tools and equipment and check for safe operation 1.3 Select and use suitable personal protective equipment 1.4 Access information on plant growing requirements

Element	Performance criteria
	1.5 Interpret moisture requirement throughout the growing season 1.6 Read the predicted seasonal moisture deficit and watering requirements and check with management 1.7 Record parameters for the irrigation system
2. Determine irrigation shifts	2.1 Subdivide the irrigated area into the smallest units capable of individual irrigation and note area and irrigation equipment characteristics for each 2.2 Define each unit for its soil irrigation capability 2.3 Define the crop and plant water requirement for each unit 2.4 Combine units requiring similar irrigation to form a shift that does not exceed the water delivery capacity of the property irrigation infrastructure 2.5 Determine the water volume required to meet irrigation needs over specified period
3. Implement irrigation schedule	3.1 Coordinate resources and brief personnel to deliver requirements 3.2 Implement watering program
4. Monitor irrigation	4.1 Inspect plants and crops for growth rate and signs of stress 4.2 Record frequency of irrigation 4.3 Measure and record water usage and confirm water allocation is not exceeded for a given period 4.4 Calculate the differences between estimated water use and actual water used 4.5 Measure water quality 4.6 Assess plant and crop growth and water use efficiency 4.7 Measure soil for readily available water 4.8 Record climate and weather conditions 4.9 Adjust watering program in response to rainfall events and changes to evapotranspiration rates
5. Record irrigation information and activities	5.1 Record plant or crop environment data 5.2 Record water usage 5.3 Record irrigation shifts 5.4 Record system process data

## Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

## Range of Conditions

## Unit Mapping Information

This unit is equivalent to AHCIRG327A Implement an irrigation schedule.

## Links

Companion Volume implementation guides are found in VETNet -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

# Assessment Requirements for AHCIRG327 Implement an irrigation schedule

## Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

## Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- access and interpret the information in an irrigation schedule
- apply sampling techniques
- compare plant health and growth to benchmark requirements
- conduct soil moisture tests
- consult with appropriate senior personnel or consultants
- identify irrigation requirements throughout the growing season by monitoring:
  - climatic conditions
  - crop stage and requirements if applicable
  - effective root depth
  - frost risk
  - plant varietal characteristics and requirements
  - signs of plant nutrient deficiencies
  - soil moisture levels
  - soil type and depth
  - symptoms of water stress
  - water quality
  - water table level
- identify, rectify and report environmental non-compliance
- instruct irrigation system operators
- implement the irrigation schedule including consideration of:
  - application rates
  - interaction between different irrigation employees or shifts
  - maintenance programs and supplies

- materials, chemicals, services
- resources, including operators with appropriate skills
- timing and length
- liaise with other work areas
- monitor irrigation activities including:
- environmental impact of irrigation activities
- identifying emitter output consistency
- identifying soil moisture content and depth to which water will reach
- report and record problems and corrective action taken
- take corrective action in response to out-of-specification results or non-compliance

## Knowledge Evidence

The candidate must demonstrate knowledge of:

- consultation requirements and procedures
- effect of irrigation techniques on plant growth
- environmental impacts, hazards and controls for irrigation
- interpretation of routine soil moisture tests
- irrigation strategies
- principles of soil moisture monitoring including volumetric soil moisture content, percentage compared to soil moisture tension
- procedures and responsibility for reporting problems
- recording requirements and procedures
- resource requirements and availability
- sampling techniques and procedures
- testing techniques and procedures
- visual symptoms of plant nutrient deficiencies, water stress and frost
- water budgeting tools
- workplace hazards and controls

## Assessment Conditions

Assessors must satisfy current standards for RTOs.

## Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

# AHCIRG331 Install pressurised irrigation systems

## Modification History

Release	Comments
Release 2	This version released with AHC Agriculture, Horticulture, Conservation and Land Management Training Package Version 2.0.
Release 1	This version released with AHC Agriculture, Horticulture, Conservation and Land Management Training Package Version 1.0.

## Application

This unit of competency covers the skills and knowledge required to install low and sprinkler volume irrigation systems.

It applies to individuals who take responsibility for own work and for the quality of the work of others. They use discretion and judgement in the selection, allocation and use of available resources. All work is carried out to comply with workplace procedures.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

## Pre-requisite Unit

Nil

## Unit Sector

Irrigation (IRG)

## Elements and Performance Criteria

Elements	Performance criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Organise resources for	1.1 Select and use materials, tools, equipment and machinery



Elements	Performance criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
installation work	1.2 Check that parts and equipment match system drawings and specifications 1.3 Carry out pre-operational and safety checks on tools, equipment and machinery 1.4 Identify work health and safety hazards, assess risks and implement suitable controls 1.5 Select, use and maintain suitable safety and personal protective equipment 1.6 Identify environmental considerations of irrigation installation activities 1.7 Check water supply to ensure that it is compatible with system specifications
2. Set out and prepare site	2.1 Measure and mark out irrigation lines 2.2 Confirm trenches are at the specified depth without damage to services, facilities, features and established plants 2.3 Observe regulations relevant to the situation 2.4 Use work practices that reflect sustainable horticulture principles and respond to local community requirements
3. Install irrigation components	3.1 Interpret the irrigation system plan and, where applicable, supervise contractors and monitor work to ensure it conforms to the plan 3.2 Assemble and connect components and complete and test joints 3.3 Fit and adjust fittings and valves and secure all joints 3.4 Maintain a clean and safe work area while installation work is carried out
4. Commission irrigation system	4.1 Calibrate testing and monitoring equipment 4.2 Confirm the start-up sequence is in accordance with the operations manual 4.3 Flush system as required 4.4 Identify operating faults and take corrective where required 4.5 Record work outcomes and report to supervisor
5. Complete installation work	5.1 Finish off earthworks 5.2 Confirm the system configuration and capacity matches the

Elements	Performance criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	installation plan 5.3 Restore site and clear materials and equipment from the site on completion of maintenance works 5.4 Clean and store tools and equipment

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
AHCIRG331 Install pressurised irrigation systems Release 2	AHCIRG331 Install pressurised irrigation systems Release 1	Minor typographical error corrected	Equivalent unit

## Links

Companion Volumes, including Implementation Guides, are available at VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

# Assessment Requirements for AHCIRG331 Install pressurised irrigation systems

## Modification History

Release	Comments
Release 2	This version released with AHC Agriculture, Horticulture, Conservation and Land Management Training Package Version 2.0.
Release 1	This version released with AHC Agriculture, Horticulture, Conservation and Land Management Training Package Version 1.0.

## Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- calibrate testing and monitoring equipment
- commission irrigation system
- complete installation work
- organise resources for installation work
- set out and prepare the site.

## Knowledge Evidence

The candidate must demonstrate knowledge of:

- the behaviour of water on varying terrain and soil types
- calculations for installing irrigation systems
- characteristics and operation of joints, valves and sprinkler components
- components of an irrigation system
- methods and techniques of installing irrigation
- operation of pumps and water flow rates
- soil characteristics
- soil water retention testing techniques
- water quality and water filtration techniques.

## Assessment Conditions

Assessors must satisfy current standards for RTOs.

## Links

Companion Volumes, including Implementation Guides, are available at VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

## AHCIRG333 Maintain pressurised irrigation systems

### Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

### Application

This unit of competency covers the skills and knowledge required to implement a low volume or sprinkler irrigation maintenance program.

It applies to individuals who take responsibility for own work and for the quality of the work of others. They use discretion and judgement in the selection, allocation and use of available resources. All work is carried out to comply with workplace procedures.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

### Pre-requisite Unit

Nil.

### Unit Sector

Irrigation (IRG)

### Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.

Element	Performance criteria
1. Interpret a low volume irrigation maintenance program	1.1 Determine the scope of maintenance 1.2 Determine the frequency of maintenance works 1.3 Establish irrigation maintenance standards 1.4 Plan and prepare maintenance works 1.5 Identify work health and safety hazards, assess risks and implement suitable controls 1.6 Identify environmental considerations of irrigation maintenance activities 1.7 Select and use suitable personal protective equipment
2. Inspect an irrigation system	2.1 Create an inspection checklist and inspect the system regularly 2.2 Identify remedial action required and undertake repairs to restore system to full effectiveness 2.3 Undertake servicing of mechanical equipment 2.4 Assess the results of maintenance works and record to ensure repairs or maintenance standards have been achieved
3. Carry out periodic system maintenance	3.1 Record damage and blockages with contaminants by damage type, location and the section of the system affected 3.2 Record and report damaged or faulty components and computer control systems and take action to effect repairs 3.3 Implement end of season maintenance procedures 3.4 Implement routine and preventative maintenance procedures
4. Record and report maintenance activities	4.1 Restore site and clear materials and equipment from the site on completion of maintenance works 4.2 Complete maintenance and servicing records 4.3 Record parts removed or replaced 4.4 Record or report faults and breakages

## **Foundation Skills**

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

## **Range of Conditions**

## **Unit Mapping Information**

New unit - no equivalent.

## **Links**

Companion Volume implementation guides are found in VETNet -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

# Assessment Requirements for AHCIRG333 Maintain pressurised irrigation systems

## Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

## Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- check connections and controllers
- check sprinkler/emitter output and function
- confirm operational pressures
- ensure proper operation of automatic flush valves
- interpret and apply maintenance procedures
- remove, service and replace valves and filters
- test irrigation equipment

## Knowledge Evidence

The candidate must demonstrate knowledge of:

- principles and practices of irrigation system maintenance
- characteristics and operation of pipes, joints, valves, emitters
- common operational and maintenance problems
- components of an irrigation system
- operation of pumps and water flow rates
- sprinkler/low volume irrigation system components

## Assessment Conditions

Assessors must satisfy current standards for RTOs.



## Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

## AHCMOM202 Operate tractors

### Modification History

Release	Comments
Release 2	This version released with AHC Training Package Version 2.0.
Release 1	This version released with AHC Training Package Version 1.0.

### Application

This unit of competency describes the skills and knowledge required to operate tractors with and without attached equipment.

Working with tractors is an inherently dangerous activity. Individuals who work at this level must be thoroughly instructed in all work health and safety aspects of operating tractors. The tractor must also comply with relevant Australian standards for tractors.

All work must be carried out to comply with workplace procedures, work health and safety requirements, manufacturer's specifications and sustainability practices.

This unit applies to individuals who work under general supervision and exercise limited autonomy with some accountability for own work. They undertake defined activities and provide solutions to a limited range of predictable problems.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

### Pre-requisite Unit

Nil

### Unit Sector

Machinery operation and maintenance (MOM)

## Elements and Performance Criteria

Element	Performance criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare tractor for operation	<p>1.1 Confirm the activity to be undertaken with supervisor, including identifying potential hazards and implementation of safe working procedures</p> <p>1.2 Read the relevant machinery operation manual and observe manufacturer's instructions</p> <p>1.3 Use and maintain personal protective equipment</p> <p>1.4 Select and attach equipment required to carry out work</p> <p>1.5 Conduct safety pre operational checks on both tractor and attached equipment and report faults or malfunctions for repair</p> <p>1.6 Attach equipment and loads that do not exceed the weight limitations or change the dynamic stability of the tractor</p>
2. Operate tractor	<p>2.1 Recognise and control risks to self and others</p> <p>2.2 Steer, manoeuvre and position tractor in a smooth and controlled manner</p> <p>2.3 Operate tractor according to low risk operating procedures in a controlled manner and monitored for performance and efficiency</p> <p>2.4 Undertake work in accordance with the agreed plan and within the operating capacities and manufacturer's specifications</p> <p>2.5 Recognise and minimise environmental impacts associated with tractor operation</p>
3. Complete and check tractor operation	<p>3.1 Conduct shut-down procedures</p> <p>3.2 Perform routine operational servicing and minor maintenance</p> <p>3.3 Identify and report malfunctions, faults, irregular performance or damage</p> <p>3.4 Clean, decontaminate, secure and store tractor and attached equipment</p> <p>3.5 Apply enterprise biosecurity policies where required</p> <p>3.6 Maintain tractor and equipment use records</p>

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
AHCMOM202 Operate tractors Release 2	AHCMOM202 Operate tractors Release 1	Minor typographical error corrected	Equivalent unit

## Links

Companion Volumes, including Implementation Guides, are available at VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

# Assessment Requirements for AHCMOM202 Operate tractors

## Modification History

Release	Comments
Release 2	This version released with AHC Training Package Version 2.0.
Release 1	This version released with AHC Training Package Version 1.0.

## Performance Evidence

The candidate must be observed operating a tractor with a range of attached equipment and implements, in a range of surface and terrain conditions.

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- identify hazards and implement safe operating procedures
- carry out pre-operational checks and maintenance including tagging defects
- set and secure attachments according to manufacturer's directions
- steer, manoeuvre and position the tractor in a safe and controlled manner
- utilise the various components and controls of the tractor
- secure, adjust and calibrate attachments and implements for operation
- operate tractors in a range of surface and terrain conditions, with and without attachments and implements
- carry out shut down procedures
- minimise environmental impacts associated with tractor operation
- follow enterprise work health and safety policies
- follow enterprise biosecurity protocols where required.
- 

## Knowledge Evidence

The candidate must demonstrate knowledge of:

- tractor components, controls and features and operational functions
- tractor operator's manuals
- tractor steering systems and features
- features and operational functions and procedures of attachments and implements

- load limits and the principles of weight distribution with regard to load shifting and tractor movement
- distinguishing characteristics of individual tractors including rated performance capacities
- effects of various surface and difficult terrain conditions on tractor operation
- duty of care to self, others and the environment
- relevant legislation with regard to machinery operation and licensing requirements
- environmental Codes of Practice with regard to machinery operation
- enterprise work health and safety requirements to operate a tractor safely
- enterprise biosecurity procedures.

## Assessment Conditions

Competency is to be assessed in the workplace or simulated environment that accurately reflects performance in a real workplace setting. All evidence collected must meet minimum requirements including industry standard timeframes for performance of tasks.

Assessment should take place in a range of surface and terrain conditions, including adverse conditions.

## Links

Companion Volumes, including Implementation Guides, are available at VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

## AHCMOM213 Operate and maintain chainsaws

### Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

### Application

This unit of competency describes the skills and knowledge required to safely operate a hand-held chainsaw and maintain it in working condition.

This unit applies to cross-cutting fallen timber using safe cutting techniques.

This unit applies to individuals who undertake defined activities with specialised tools and methods, work in a structured context, apply knowledge and skills to demonstrate autonomy and limited judgement, and provide solutions to a limited range of predictable problems.

Work is implemented with low risk work procedures and to comply with Safe Work Method Statement documentation.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

### Pre-requisite Unit

Nil.

### Unit Sector

Machinery operation and maintenance (MOM)

### Elements and Performance Criteria

Element	Performance criteria
Elements describe the	Performance criteria describe the performance needed to demonstrate

Element	Performance criteria
essential outcomes.	achievement of the element.
1. Assist in preparation of work site	1.1 Determine location of worksite and correct tree from scope of works 1.2 Identify site hazards, assess risks and report to supervisor 1.3 Confirm work zone with work crew and monitor site 1.4 Confirm first aid and emergency personnel, equipment and procedures 1.5 Record and implement work health, safety, site, environmental and traffic control measures
2. Recognise and apply workplace safety procedures	2.1 Identify hazards relevant to the maintenance and operation of chainsaws, assess risks and implement risk controls 2.2 Select and use personal protective equipment 2.3 Confirm relevant licensing and legislative requirements with regard to the operation of chainsaws with supervisor 2.4 Transport chainsaw and fuel appropriately
3. Check and prepare chainsaw	3.1 Select appropriate tools and materials required for maintenance 3.2 Conduct routine checks and maintenance procedures before operation 3.3 Calculate fuel oil ratios before mixing 3.4 Identify, tag, record and report chainsaw faults or malfunctions and organise repair
4. Operate chainsaw	4.1 Communicate with work team during operations using voice, hand and whistle signals 4.2 Place supports appropriately to ensure a stable base 4.3 Identify materials to be cut and position them for operation 4.4 Assess material to be cut visually for defects 4.5 Determine cutting methods appropriate to material type and implement risk controls 4.6 Select and use appropriate tools associated with chainsaw use 4.7 Operate chainsaw to cross cut timber using documented low risk work methods 4.8 Maintain effective worksite communication to ensure efficient workflow and address problems 4.9 Identify, assess and control environmental implications associated with chainsaw operation
5. Complete and check chainsaw operation	5.1 Record and report chainsaw damage, malfunction and irregular performance 5.2 Clean and store chainsaw 5.3 Dispose of debris from operation in accordance with



Element	Performance criteria
	environmental requirements 5.4 Maintain relevant reports

## Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

## Range of Conditions

## Unit Mapping Information

This unit is equivalent to AHCARB205A Operate and maintain chainsaws.

## Links

Companion Volume implementation guides are found in VETNet -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

# Assessment Requirements for AHCMOM213 Operate and maintain chainsaws

## Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

## Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- apply chainsaw use and operation risk assessment and implementation of controls
- clean and store chainsaw
- confirm first aid and emergency personnel, equipment and procedures
- confirm work zone with work crew and monitor site
- determine site location and work details and clarify with supervisor
- identify site hazards, assess risks and report to supervisor
- identify, tag and report chainsaw faults and malfunctions
- record and implement work health, safety, site, environmental and traffic control measures
- use appropriate personal protective equipment
- safely cross-cut fallen timber using compression and tension cuts with a hand held chainsaw
- use appropriate tools and materials to maintain chainsaw
- use environmentally responsible workplace practices
- use low risk work practices including stopping, disengaging quickly and dealing with foreign matter
- use safe work procedures relevant to operating a chainsaw

## Knowledge Evidence

The candidate must demonstrate knowledge of:

- the principles and practice for operating chainsaws
- safe operating procedures
- relevant Australian Standards concerning chainsaw operation

- components of chainsaws and their respective functions
- common defects in woody materials
- cutting methods and techniques, patterns and sequence of cuts
- how to estimate and measure dimensions and calculate volumes
- work health and safety requirements for the operation of a chainsaw including caution and hazard signs and symbols
- hazards and risks when operating a chainsaw
- environmental Codes of Practice regarding chainsaw operation

## Assessment Conditions

Assessors must satisfy current standards for RTOs.

## Links

Companion Volume implementation guides are found in VETNet -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

# AHCPCM301 Implement a plant nutrition program

## Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

## Application

This unit of competency describes the skills and knowledge required to monitor and control the nutritional requirements of and applications to plants across a range of situations and environments.

It applies to individuals who take responsibility for their own work and for the quality of the work of others. They use discretion and judgement in the selection, allocation and use of available resources. All work is carried out to comply with workplace procedures.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

## Pre-requisite Unit

Nil.

## Unit Sector

Plants culture and management (PCM)

## Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Prepare for implementation of the plant nutrition program	1.1 Identify goals, target site, soils, plant species and varieties for implementing the program 1.2 Identify materials for soil and plant treatments and locate the storage site or supplier details

Element	Performance criteria
	1.3 Locate services using site plans and in consultation with the supervisor 1.4 Identify work health and safety hazard, assess risks and implement control measures 1.5 Select and use suitable personal protective equipment (PPE)
2. Monitor soil pH	2.1 Monitor soil pH in the implementation site in relation to plant nutrition 2.2 Identify, select, compare and source products useful in changing soil pH 2.3 Assess product application methods according to product type and type of growing media
3. Determine nutritional problems in plants	3.1 Identify common nutrient deficiency and toxicity problems in plants, using visual inspection 3.2 Consult supervisor or horticulturist, as required, to determine causes of nutritional or toxicity problems 3.3 Identify, compare, select and source soil ameliorants to improve soil fertility
4. Prepare to use fertilisers	4.1 Select a fertiliser that is compatible with plant species and type of growing media 4.2 Assess fertiliser application methods, taking into account the fertiliser type, soils and the environmental implications 4.3 Apply fertilisers appropriate to the plant growing cycle and the organisation's fertiliser calendar
5. Prepare application equipment	5.1 Select tools, equipment and machinery 5.2 Carry out pre-operational and safety checks on tools, equipment and machinery 5.3 Calibrate tools, equipment and machinery
6. Apply specific products at appropriate rates	6.1 Select specific products based on their analysis to meet plant needs 6.2 Calculate product application rates to optimise plant benefit and minimise environmental impact 6.3 Apply specific products at the correct rate, timing and method according to the product type and analysis and with consideration of the environmental implications 6.4 Record product applications 6.5 Monitor, document and report target plant response to the plant nutrition program, as well as non-target effects responses including environmental impacts or pests

## Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

## Range of Conditions

## Unit Mapping Information

This unit is equivalent to AHCPCM301A Implement a plant nutrition program.

## Links

Companion Volume implementation guides are found in VETNet -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

# Assessment Requirements for AHCPM301 Implement a plant nutrition program

## Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

## Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- identify goals, target site, soils and plants for implementing the program
- identify materials and their supply source
- monitor soil pH in the implementation site
- identify appropriate products and application methods appropriate to implementing nutrition program
- estimate treatment and product requirements, material sizes and quantities
- conduct a site hazard identification and risk control assessment
- determine nutritional problems in plants
- plant nutrition program specifications
- apply specific products at appropriate rates and record their application
- select, check and calibrate tools, equipment and machinery

## Knowledge Evidence

The candidate must demonstrate knowledge of:

- principles and practices of plant nutrition
  - botany and plant physiology
  - methods of nutrient uptake by plants
  - nutrient cycling and its practical relevance to the specific plants and soils
  - nutrients required by plants grown within the enterprise
  - soil ameliorants commonly required to treat the soil problems experienced by the enterprise
- the effects of nutrient deficiency and toxicity on plant species and varieties

- the environmental implications of soil ameliorant and fertiliser use
- the main simple and compound fertiliser products available to the enterprise including analysis, solubility, salt index, application rates and costs
- the relationship between soil characteristics and the availability of nutrients

## Assessment Conditions

Assessors must satisfy current standards for RTOs.

## Links

Companion Volume implementation guides are found in VETNet -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>



## AHCPTH201 Plant horticultural crops

### Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

### Application

This unit of competency describes the skills and knowledge required to plant horticultural crops in the annual, vegetable and flower growing industries.

It applies to individuals who work under general supervision and exercise limited autonomy with some accountability for their own work. They undertake defined activities and work in a structured context.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

### Pre-requisite Unit

Nil.

### Unit Sector

Production horticulture (PHT)

### Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Prepare for crop planting operations	1.1 Follow instructions about planting the crop 1.2 Prepare machinery, equipment and tools for crop planting 1.3 Recognise workplace hazards and report safety concerns 1.4 Use and maintained personal protective equipment (PPE)

Element	Performance criteria
2. Prepare the site and plant material for planting	2.1 Prepare soil or growing media 2.2 Implement crop protection 2.3 Apply pre-planting treatments 2.4 Store planting material where required 2.5 Operate machinery, equipment and tools for soil preparation
3. Carry out planting operations	3.1 Select planting material 3.2 Store, handle and transport planting materials to the site 3.3 Carry out planting 3.4 Water plants in and apply post-planting treatments

## Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

## Range of Conditions

## Unit Mapping Information

This unit is equivalent to AHCPHT201A Plant horticultural crops.

## Links

Companion Volume implementation guides are found in VETNet -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

# Assessment Requirements for AHCPHT201 Plant horticultural crops

## Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

## Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- apply agricultural chemicals under supervision
- apply enterprise quality standards
- estimate spacing and planting patterns
- follow safety procedures
- identify workplace hazards
- measure quantities of plant materials and treatments
- operate machinery to manufacturers specifications and low risk operating procedures
- select planting material
- use and maintain planting equipment

## Knowledge Evidence

The candidate must demonstrate knowledge of:

- principles and practices for planting horticultural crops
  - basic plant physiology
  - basic preparation of soil and growing media
  - environmental impacts and risks of planting horticultural crops
  - growing requirements of plants
  - importance of correct timing and procedures for crop planting
  - importance of field hygiene and quality control in regard to crop planting
  - nutritional, water and other requirements of the crop
  - principles of pest, weed and disease control
  - pre-planting soil and plant treatments and their importance

- soil structure and health

## Assessment Conditions

Assessors must satisfy current standards for RTOs.

## Links

Companion Volume implementation guides are found in VETNet -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

## AHCPTH401 Assess olive oil for style and quality

### Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

### Application

This unit of competency describes the skills and knowledge required to assess olive oil for style and quality.

It applies to individuals who analyse information and exercise judgement to complete a range of advanced skilled activities and demonstrate deep knowledge in a specific technical area. They have accountability for the work of others and analyse, design and communicate solutions to a range of complex problems. All work is carried out to comply with workplace procedures.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

### Pre-requisite Unit

Nil.

### Unit Sector

Production horticulture (PHT)

### Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Establish and implement appropriate tasting protocols	1.1 Establish appropriate tasting conditions 1.2 Apply accepted industry tasting procedures 1.3 Taste oils in the order that will best show the character of each oil

Element	Performance criteria
2. Determine style and sensory quality of the olive oil	2.1 Identify and assess characteristics of the olive oil 2.2 Taste oil to assess 2.3 Smell and taste oil to assess sensory quality 2.4 Analyse and record observed defects for future action
3. Determine the analytical quality of the olive oil	3.1 Send oil samples to laboratory to test key chemical indices 3.2 Interpret key chemical indices to assess analytical quality of oil 3.3 Record for future action observed chemical indices that are beyond the normal range
4. Identify factors influencing the style and quality of the olive oil	4.1 Identify horticultural factors that may influence style and quality of the olive oil 4.2 Identify processing factors that may influence style and quality of the olive oil 4.3 Identify other factors that may influence style and quality of the olive oil
5. Implement findings of tastings and chemical analyses	5.1 Maintain records of season's tastings and chemical analyses 5.2 Evaluate horticultural and processing activities and methods in terms of modifications and improvements to be made 5.3 Adjust and document horticultural production plan for next season 5.4 Document and communicate processing requirements for next season to processing personnel

## Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

## Range of Conditions

## Unit Mapping Information

This unit is equivalent to AHCPHT401A Assess olive oil for style and quality.

## Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

# Assessment Requirements for AHCPHT401 Assess olive oil for style and quality

## Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

## Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- identify olive oil styles
- identify common olive oil defects
- modify horticultural and/or processing practices to remedy variations from desired style and quality

## Knowledge Evidence

The candidate must demonstrate knowledge of:

- principles and practices for assessing olive oil
  - cause of olive oil defects and how they can be remedied
  - horticultural and processing practices that affect olive oil style, and reasons for the effect
  - relationship between critical chemical parameters and oil style and quality

## Assessment Conditions

Assessors must satisfy current standards for RTOs.

## Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

# AHCSOL202 Assist with soil or growing media sampling and testing

## Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

## Application

This unit of competency describes the skills and knowledge required to assist with the sampling and testing of soil or growing media sampling and testing.

This unit applies to individuals who work under general supervision and exercise limited autonomy with some accountability for their own work. They undertake defined activities and work in a structured context.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

## Pre-requisite Unit

Nil.

## Unit Sector

Soils and media (SOL)

## Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Collect soil or media samples for testing	1.1 Discuss task requirements with supervisor and seek clarification where necessary 1.2 Prepare tools and materials for collecting samples



Element	Performance criteria
	1.3 Take and prepare samples as instructed 1.4 Assist with labelling and recording samples if required
2. Perform basic tests on soil or media sample	2.1 Recognise basic features of a soil profile 2.2 Assist with testing or inspecting physical properties of samples 2.3 Assist with testing chemical properties of samples 2.4 Relate soil test results to suitability of the soil or media for growing

## Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

## Range of Conditions

## Unit Mapping Information

This unit is equivalent to AHCSOL201A Determine basic properties of soil and/or growing media.

## Links

Companion Volume implementation guides are found in VETNet -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

## Assessment Requirements for AHCSOL202 Assist with soil or growing media sampling and testing

### Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

### Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- collect soil and media samples
- perform basic descriptive tests for soil texture, salinity and pH
- describe soils or media using commonly used descriptive terms
- assist with the use of simple soil testing equipment for testing pH and salinity
- prepare records of soil sampling results as required

### Knowledge Evidence

The candidate must demonstrate knowledge of:

- principles and practices for recognising soils or growing media properties
  - basic soil or media field tests
  - soil or media chemical properties
  - soil or media physical properties
  - soil or media plant relationships
  - soil sampling techniques

### Assessment Conditions

Assessors must satisfy current standards for RTOs.

## Links

Companion Volume implementation guides are found in VETNet -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

## AHCSOL401 Sample soils and interpret results

### Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

### Application

This unit of competency describes the skills and knowledge required to take a soil sample and interpret the test results.

This unit applies to individuals whose job role includes undertaking soil or growing media sampling and interpreting the results as a foundation for further horticultural operations such as nutrition programs and irrigation scheduling.

This unit applies to individuals who analyse information and exercise judgement to complete a range of advanced skilled activities and demonstrate deep knowledge in a specific technical area. They have accountability for the work of others and analyse, design and communicate solutions to a range of complex problems. All work is carried out to comply with workplace procedures.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

### Pre-requisite Unit

Nil.

### Unit Sector

Soils and media (SOL)

### Elements and Performance Criteria

Element	Performance criteria
Elements describe the	Performance criteria describe the performance needed to demonstrate

Element	Performance criteria
essential outcomes.	achievement of the element.
1. Prepare for soil sampling	1.1 Identify the soils to be surveyed, surveying activity and contractors 1.2 Select tools, equipment and machinery as required by the testing agency requirements 1.3 Carry out pre-operational and safety checks on tools, equipment and machinery 1.4 Identify areas of homogeneous soil types for sampling 1.5 Locate services in consultation with the supervisor 1.6 Identify work and safety hazards, assess risks and implement controls 1.7 Select and use suitable safety equipment and personal protective equipment (PPE) 1.8 Maintain a clean and safe work area throughout and on completion of work
2. Determine soil characteristics by performing soil sampling	2.1 Determine the density and depth for a representative sampling of the area 2.2 Excavate holes at identified sampling sites 2.3 Collect and prepare, label, package and dispatch samples for off-site testing 2.4 Determine the physical and chemical characteristics of the soil 2.5 Clean and store sampling and testing tools and equipment 2.6 Record results
3. Interpret results of soil analysis	3.1 Classify the soil types of the sample area according to standards for soil classification 3.2 Determine, from published data and records, the acceptable soil physical and chemical parameters for a specified plant 3.3 Compare collected analytical results with acceptable physical and chemical parameters for a specified plant 3.4 Evaluate soil characteristics to determine whether they can be altered to meet plant needs 3.5 Determine the Readily Available Water values for irrigation sites

## Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

## Range of Conditions

## Unit Mapping Information

This unit is equivalent to AHCSOL401A Sample soils and interpret results.

## Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

# Assessment Requirements for AHCSOL401 Sample soils and interpret results

## Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

## Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- collect soil and media samples using appropriate sampling methodology
- file and record analytic results for future use
- implement a nutrient and nutrition program
- prepare soil and media samples for dispatch to soil analysis laboratory
- receive and interpret analytic results

## Knowledge Evidence

The candidate must demonstrate knowledge of:

- principles and practices of soils sampling
  - environmental implications associated with soil surveying activities and the application of analytical results
  - practical understanding of the range of sample collection, testing and analytical methods that may be used to perform soil surveys, and the association of surveying methods with site conditions, environmental implications and intended horticultural use of the surveyed site
  - soil ameliorants and soil improvement techniques for addressing site limitations identified through surveying
  - the capacity of soils to provide water to plants
  - the importance of organic matter in soil in relation to the intended horticultural use
  - the physical and chemical properties of soils in relation to their ability to support specified horticultural production

## Assessment Conditions

Assessors must satisfy current standards for RTOs.

## Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>



# AHCWRK209 Participate in environmentally sustainable work practices

## Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

## Application

This unit of competency describes the skills and knowledge required to follow workplace procedures and instructions and to participate in environmentally sustainable work practices.

This unit applies to individuals who work under general supervision and exercise limited autonomy with some accountability for their own work.

No licensing, legislative or certification requirements apply to this qualification at the time of publication.

## Pre-requisite Unit

Nil.

## Unit Sector

Work (WRK)

## Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Identify current resource use	1.1 Identify workplace environmental and resource efficiency issues 1.2 Identify resources used in own work role 1.3 Document and measure current usage of resources using appropriate techniques

Element	Performance criteria
	1.4 Record and file documentation measuring current usage, using technology (such as software systems) where applicable 1.5 Identify and report workplace environmental hazards to supervisor
2. Comply with environmental regulations	2.1 Follow workplace procedures to ensure compliance 2.2 Report breaches or potential breaches to appropriate personnel
3. Seek opportunities to improve resource efficiency	3.1 Follow organisational plans to improve environmental practices and resource efficiency 3.2 Work as part of a team, where relevant, to identify possible areas for improvements to work practices in own work area 3.2 Make suggestions for improvements to workplace practices in own work area

## Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

## Range of Conditions

## Unit Mapping Information

This unit is equivalent to AHCWRK209A Participate in environmentally sustainable work practices

## Links

Companion Volume implementation guides are found in VETNet -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

# Assessment Requirements for AHCWRK209 Participate in environmentally sustainable work practices

## Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

## Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- identify workplace environmental and resource efficiency issues
- identify and measure resources used in own work role
- record measurements of current usage and filing documentation using appropriate technology
- identify and report workplace environmental hazards to supervisor
- follow workplace procedures to ensure compliance
- report breaches or potential breaches to supervisor
- follow organisational plans to improve environmental practices and resource efficiency
- work as part of a team to identify possible areas for improvements
- use industry standard terminology
- apply work health and safety in the context of own work.

## Knowledge Evidence

The candidate must demonstrate knowledge of:

- environmental and resource hazards and risks
- environmental or sustainability legislation, regulations and codes of practice applicable to own work role
- work health and safety issues and requirements applicable to own role
- organisational structure, and reporting channels and procedures
- relevant environmental and resource efficiency systems and procedures
- sustainability in the workplace

- terms and conditions of employment including policies and procedures, such as daily tasks, employee and employer rights, equal opportunity.

## Assessment Conditions

Assessors must satisfy current standards for RTOs.

## Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

## AHCWRK308 Handle bulk materials in storage area

### Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

### Application

This unit of competency describes the skills and knowledge required to receive, move and sample bulk materials in a storage area.

Bulk materials are handled to industry standards and the bulk material storage program in relation to segregation and storage conditions ensuring minimum loss or damage and optimum returns.

This unit applies to individuals who work under broad direction and take responsibility for their own work. They use discretion and judgement in the selection and use of available resources.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

### Pre-requisite Unit

Nil.

### Unit Sector

Work (WRK)

### Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Prepare to work in bulk	1.1 Interpret work to be undertaken from the work program where

Element	Performance criteria
materials storage area	<p>necessary, and confirmed with supervisor</p> <p>1.2 Identify work health and safety hazards, assess risks and implement suitable control measures</p> <p>1.3 Select, use and maintain suitable personal protective clothing</p> <p>1.4 Select, check and maintain tools and equipment suitable for the work to be undertaken</p> <p>1.5 Identify environmental implications of undertaking work in the bulk materials storage area, assess likely outcomes and responsible action taken if necessary</p> <p>1.6 Maintain biosecurity protocols at all times</p> <p>1.7 Identify legislative, regulatory and industry requirements</p> <p>1.8 Design and implement contingency strategies</p>
2. Sample bulk materials for testing	<p>2.1 Take representative samples of bulk materials for testing in line with the requirements of the bulk materials storage program</p> <p>2.2 Undertake sampling safely, following the prescribed guidelines for the activity</p> <p>2.3 Prepare representative bulk materials samples for dispatch by clearly labelling and packaging accordingly</p> <p>2.4 Dispatch samples to the analysing body</p>
3. Move bulk materials into and out of storage	<p>3.1 Identify bulk materials for handling and storage from written or verbal instructions</p> <p>3.2 Segregate bulk materials according to type, variety and quality characteristics</p> <p>3.3 Take measures to minimise insect and weed infestation and contamination during the movement of the bulk materials</p> <p>3.4 Check bulk materials regularly for insect infestation and contamination during movement</p> <p>3.5 Clean any storage and handling equipment that is used thoroughly after emptying, and dismantle if necessary</p> <p>3.6 Select silo types and handling equipment for each bulk material type in relation to their storage characteristics and flow properties</p> <p>3.7 Implement suitable measures to minimise the effect of desiccant dusts on the flow properties of bulk materials</p> <p>3.8 Update and store records appropriately</p>
4. Repair and maintain storage facility	<p>4.1 Identify the need for repairs to the facility through observation or instruction</p> <p>4.2 Conduct maintenance and repairs as required</p> <p>4.3 Complete maintenance records and other appropriate information</p> <p>4.4 Clean and maintain workshop and work areas</p> <p>4.5 Report maintenance and repairs, damage, malfunctions or</p>

Element	Performance criteria
	irregular performance in machinery, tools and equipment 4.6 Clean, maintain and store tools and equipment

## Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

## Range of Conditions

## Unit Mapping Information

This unit is equivalent to AHCWRK308A Handle bulk materials in storage area.

## Links

Companion Volume implementation guides are found in VETNet -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

## Assessment Requirements for AHCWRK308 Handle bulk materials in storage area

### Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

### Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- check equipment and storage facilities and identify current or impending faults
- record bulk materials stocks and movements
- conduct silo readings
- identify bulk materials pests and damage
- use communication systems
- sample and conduct a simple analysis of bulk materials
- handle and manoeuvring equipment
- test bulk materials for moisture, contamination and quality
- complete pre-operational checks on basic tools and equipment
- perform routine safety, service and maintenance procedures on tools, equipment and machinery
- operate hand and independently powered tools and clean equipment to industry standards
- clean, securing and storing machinery and equipment
- perform basic trouble shooting
- recognise and rectifying minor operational faults
- handle hazardous substances (fuels) safely
- use industry standard terminology.

### Knowledge Evidence

The candidate must demonstrate knowledge of:

- the client's sampling and classification requirements
- bulk materials types and characteristics



- common bulk materials pests and problems
- legislative requirements, manufacturer's instructions and workplace procedures
- silo operations and configuration, machinery and operating practices
- organisation requirements for protective equipment and safe practices in relation to work health and safety
- organisation and industry guidelines for segregation of bulk materials quality assurance principles
- pre-operational and safety checks, servicing and maintenance procedures for tools and equipment
- potential hazards associated with the operation of basic tools and equipment
- general machine maintenance procedures
- machinery operating principles and operating methods
- machinery storage and protection methods
- environmental impacts associated with the operation of machinery and equipment
- personal protective clothing and equipment and when and how it should be used
- cleaning and storage of machinery, equipment and materials
- enterprise recording and reporting procedures.

## Assessment Conditions

Assessors must satisfy current standards for RTOs.

## Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

# AHCWRK309 Apply environmentally sustainable work practices

## Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

## Application

This unit of competency describes the skills and knowledge required to apply environmentally sustainable work practices.

This unit applies to individuals who work under broad direction and take responsibility for their own work including limited responsibility for the work of others.

Work routines meet organisational and compliance requirements for ethical handling and welfare of animals, environmental sustainability, work health and safety, and biosecurity appropriate to the work role.

No licencing, legislative or certification requirements apply to this unit at the time of publication.

## Pre-requisite Unit

Nil.

## Unit Sector

Work (WRK)

## Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.

Element	Performance criteria
1. Identify current practices in relation to resource usage and sustainability	1.1 Identify current environmental regulations and associated procedures applying to the workplace 1.2 Identify environmental sustainability policy and procedures applicable to the workplace 1.3 Identify resource usage in the workplace using purchasing and other relevant data 1.4 Access information on impact of resource usage on environmental sustainability 1.5 Conduct a safety hazard analysis and risk assessment
2. Contribute to the review of workplace environmental sustainability practices	2.1 Collect information on environmental sustainability and resource efficiency systems relevant to the workplace 2.2 Review current practices and identify potential areas for improvement 2.3 Seek suggestions and ideas from stakeholders to improve the management of the environment and resource efficiency 2.4 Contribute to development of tools or resources to help make improvements in the workplace, using collected information 2.5 Communicate proposed improvements to management
3. Apply improvement strategies	3.1 Use appropriate techniques and tools to assist in achieving efficiencies and environmental targets 3.2 Apply life cycle management principles 3.3 Apply strategies to minimise waste and employ recycling, re-use or re-purposing where appropriate 3.4 Apply strategies to minimise environmental risks and impacts
4. Record and report on work practices	4.1 Use monitoring and evaluation tools and technology where available 4.2 Record incidents where sustainability policy and procedures have been breached 4.3 Record and report on progress against resource efficiency and environmental targets 4.4 Provide feedback to management on environmental sustainability review and improvement process 4.5 Promote organisational improvement strategies

## Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

## Range of Conditions

## Unit Mapping Information

This unit is not equivalent to AHCWRK313A Implement and monitor environmentally sustainable work practices. No equivalent unit.

## Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

## Assessment Requirements for AHCWRK309 Apply environmentally sustainable work practices

### Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

### Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- identify current procedures and practices related to environmental regulations
- identify current procedures and practices related to minimising impact of resource usage on environment
- make contributions to the review of environmental sustainability procedures and practices through research and development of tools or techniques
- use appropriate techniques and tools to assist in achieving resource efficiencies and environment targets
- use communication skills to:
  - convey proposed improvements
  - provide feedback on improvement processes
  - promote organisational improvement strategies
- apply life cycle management principles in strategies to improve resource usage, reduce waste, employ recycling, re-use, or re-purposing, and to minimise environmental risks and impacts
- use tools and technology to monitor effectiveness of improvement strategies, and incidents that breach sustainability policy and procedures
- record and report on progress against resource efficiency and environmental targets.

### Knowledge Evidence

The candidate must demonstrate knowledge of:

- basic environmental sustainability principles
- environmental legislation, regulations, standards, codes of practices as may be relevant to industry sector and workplace

- relevant internal and external sources of information that can be used to identify sustainability improvements
- common environmental and energy efficiency issues within the industry
- environmental hazards and risks associated with the relevant industry sector
- organisation's sustainability work policies and procedures
- principles of resources efficiency and life cycle management
- practices for disposal or recycling of waste associated with relevant industry sector
- organisation's recording and reporting systems.

## Assessment Conditions

Assessors must satisfy current standards for RTOs

## Links

Companion Volume implementation guides are found in VETNet -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

# AMPA2006 Apply animal welfare and handling requirements

## Modification History

Release	TP Version	Comment
1	AMPv2.0	Initial release

## Application

This unit describes the skills and knowledge required to identify animal welfare issues and comply with the necessary requirements when handling animals. The requirements include all workplace and regulatory requirements for humane handling.

This unit is applicable to all personnel responsible for handling livestock.

All work should be carried out to comply with workplace and hygiene requirements.

This unit applies to individuals who work under general supervision, exercise limited autonomy and have some accountability for their own work.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

This unit must be delivered and assessed in the context of Australian meat processing standards and regulations, in particular legislative requirements related to animal welfare.

## Pre-requisite Unit

Nil.

## Unit Sector

## Elements and Performance Criteria

Element	Performance criteria
Elements describe the	Performance criteria describe the performance needed to demonstrate

Element	Performance criteria
essential outcomes.	achievement of the element.
1. Identify and explain animal handling practices	1.1 Identify work instructions and work practices for the welfare and handling of animals 1.2 Identify the impact on the quality of meat of stressing and/or injuring animals 1.3 Identify defects in meat quality resulting from poor handling techniques of live animals
2. Identify and explain animal welfare requirements	2.1 Identify risks to animals being handled 2.2 Identify and explain workplace and regulatory requirements for handling animals humanely 2.3 Identify and explain relevant sections of the applicable Animal Welfare Standard and relevant legislation
3. Identify and explain workplace health and safety requirements for handling animals safely	3.1 Identify risks associated with handling animals 3.2 Identify workplace health and safety requirements associated with handling animals
4. Identify and explain livestock identification procedures	4.1 Identify individual animal identification procedures, where appropriate, according to workplace, WHS and regulatory requirements 4.2 Explain the purpose of individual mob and lot identification 4.3 Identify lots according to workplace requirements 4.4 Explain the consequences of incorrect lot identification
5. Identify and explain requirements for dealing with sick and injured stock	5.1 Explain workplace and regulatory requirements 5.2 Describe humane destruction (euthanasing) arrangements
6. Apply animal welfare and handling techniques	6.1 Handle animals in a way that complies with workplace requirements and minimises stress 6.2 Maintain flow of stock to meet processing requirements 6.3 Handle animals safely in accordance with workplace and WHS requirements 6.4 Handle sick and injured stock in accordance with workplace requirements

## Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.



## Range of Conditions

## Unit Mapping Information

This unit is equivalent to MTMP2010A Apply animal welfare and handling requirements.

## Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=5e2e56b7-698f-4822-84bb-25adbb8443a7>

# Assessment Requirements for AMPA2006 Apply animal welfare and handling requirements

## Modification History

Release	TP Version	Comment
1	AMPv2.0	Initial release

## Performance Evidence

The candidate must identify animal welfare issues and comply with the necessary requirements when handling animals.

The candidate must:

- identify sick or injured animals
- identify out-of-specification animals
- accurately complete records of livestock movement
- communicate effectively and appropriately with fellow workers (e.g. to exchange information with stockperson)
- identify signs and causes of stress in animals
- comply with workplace procedures and requirements for handling livestock and minimising livestock stress
- maintain flow of livestock with minimal livestock stress
- identify the relevant sections of the animal welfare standard and code
- identify relevant regulatory requirements

## Knowledge Evidence

The candidate must demonstrate a basic factual, technical and procedural knowledge of:

- workplace procedures for receipt and/or dispatch of animals
- workplace requirements for maintaining flow and order of animals
- impact of stress and injury on the animal
- impact of stress and injury on product quality, including carcasses, hides and skins
- stock identification systems including National Livestock Identification System (NLIS)
- lot identification of stock and its importance with regard to trace back
- workplace health and safety hazards of handling stock
- feed and water requirements where relevant
- the relevant sections of the animal welfare standard and code

- relevant work instructions and Standard Operating Procedures (SOPs) associated with tasks undertaken
- customer and community expectations
- workplace and regulatory requirements

## Assessment Conditions

Competency must be demonstrated utilising the most current legislation and codes.

Assessment must involve some practical demonstration of competency in the relevant workplace.

As a minimum, the following three forms of assessment must be used:

- quiz of underpinning knowledge
- workplace demonstration
- workplace referee or third-party report of performance over time

Assessors must satisfy the current standards for RTOs.

## Links

Companion Volume implementation guides are found in VETNet -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=5e2e56b7-698f-4822-84bb-25adbb8443a7>

## AMPA2174 Clean after operations - boning room

### Modification History

Release	TP Version	Comment
1	AMPv2.0	Initial release

### Application

This unit describes the skills and knowledge required to clean and sanitise a boning room. It deals with the skills and knowledge required to operate, strip down and clean all the mechanical aids in the boning room (e.g. packing machinery, conveyors, elevators, scales, recording and labelling machines). It also involves the operation of high pressure cleaning equipment and the use of approved cleaning chemicals in the plant.

This unit is applicable to workers cleaning boning rooms after production has finished. The boning rooms may be attached to abattoirs or in smallgoods plants or part of food services, game processing or wholesaling operations.

All work should be carried out to comply with workplace and hygiene requirements.

This unit applies to individuals who work under general supervision, exercise limited autonomy and have some accountability for their own work.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

This unit must be delivered and assessed in the context of Australian meat processing standards and regulations.

### Pre-requisite Unit

Nil.

## Unit Sector

## Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Clean boning room	1.1 Clean boning room in accordance with cleaning schedule and work instructions 1.2 Undertake cleaning procedures to minimise condensation 1.3 Use cleaning chemicals in accordance with manufacturer's specifications and workplace health and safety requirements 1.4 Identify major areas of contamination 1.5 Ensure cleaning procedures meet pre-operational hygiene requirements 1.6 Ensure surfaces are left free of excess moisture
2. Clean boning room machinery	2.1 Isolate machinery in accordance with workplace requirements 2.2 Clean boning room packing machinery in accordance with workplace requirements and manufacturer specifications 2.3 Isolate and clean conveyers and elevators 2.4 Clean electronic scales, recording and labelling machines in accordance with workplace requirements and manufacturer's specifications

## Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

## Range of Conditions

## Unit Mapping Information

This unit is equivalent to MTMP2197C Clean after operations – boning room.

## Links

Companion Volume implementation guides are found in VETNet -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=5e2e56b7-698f-4822-84bb-25adbb8443a7>



# Assessment Requirements for AMPA2174 Clean after operations - boning room

## Modification History

Release	TP Version	Comment
1	AMPv2.0	Initial release

## Performance Evidence

The candidate must clean and sanitise a boning room.

The candidate must:

- clean boning room in accordance with workplace requirements
- clean boning room machinery in accordance with workplace requirements
- observe workplace health and safety requirements for cleaning the boning room
- identify and apply relevant regulatory requirements
- use communication skills relevant to work instructions and Standard Operating Procedures (SOPs)
- monitor program for boning room hygiene and sanitation including surface swabbing and pre-operational checks

## Knowledge Evidence

The candidate must clean and sanitise a boning room.

The candidate must:

- importance of drying, and of avoiding condensation in boning rooms
- cleaning schedule for the boning room
- major sources and locations of contamination in the boning room
- specific cleaning programs and workplace health and safety requirements for boning room machinery and conveyor systems

## Assessment Conditions

Assessment must be conducted in a registered operating meat processing plant.

Competency must be demonstrated during normal cleaning operations.

As minimum, the following three forms of assessment must be used:

- quiz of underpinning knowledge
- workplace demonstration
- workplace referee or third-party report of performance over time

Assessors must satisfy the current standards for RTOs.

## Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=5e2e56b7-698f-4822-84bb-25adbb8443a7>



# AMPP201 Operate a poultry dicing, stripping or mincing process

## Modification History

Release	Comments
Release 1	This version released with Australian Meat Industry Training Package Version 3.0.

## Application

This unit of competency describes the skills and knowledge required to set up, operate, adjust and shut down a poultry product dicing, stripping or mincing process.

This unit applies to individuals who apply basic operating principles to the operation and monitoring of dicing, stripping or mincing equipment and processes in a poultry production environment.

All work must be carried out to comply with workplace procedures, in accordance with State/Territory food safety, work health and safety, and environmental codes, regulations, legislation and standards that apply to the workplace.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

## Pre-requisite Unit

Nil

## Unit Sector

Poultry Processing (P)

## Elements and Performance Criteria

Elements	Performance criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare the dicing, stripping or mincing equipment and process for operation	1.1 Confirm the availability of raw product, additives and equipment to meet the process requirements 1.2 Identify and confirm cleaning and maintenance requirements and

Elements	Performance criteria
	<p>status</p> <p>1.3 Identify and fit personal protective clothing and equipment as required by workplace safety procedures</p> <p>1.4 Fit and adjust machine components and related attachments according to operating requirements</p> <p>1.5 Enter required processing or operating parameters to meet process requirements</p> <p>1.6 Check equipment performance and adjust if required, to meet process requirements</p> <p>1.7 Conduct pre-start checks according to workplace requirements</p>
2. Operate and monitor the dicing, stripping or mincing process	<p>2.1 Start up and operate the dicing, stripping or mincing process according to health and safety, food safety and environmental guidelines</p> <p>2.2 Monitor equipment to identify variations in operating conditions</p> <p>2.3 Identify and report variations in equipment operation and maintenance requirements according to workplace procedures</p> <p>2.4 Monitor process to confirm that the product meets the required specifications</p> <p>2.5 Identify, rectify or report out-of-specification product or process outcomes</p> <p>2.6 Maintain the work area according to workplace cleaning and sanitation standards</p> <p>2.7 Maintain workplace records in required format</p>
3. Shut down the dicing, stripping or mincing process	<p>3.1 Identify and implement the appropriate shutdown procedure</p> <p>3.2 Identify and report maintenance requirements according to workplace procedures</p>

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"> <li>Interpret standard operating procedures and machinery operation requirements</li> </ul>

Skill	Description
Writing	<ul style="list-style-type: none"> <li>Complete records according to workplace guidelines</li> </ul>
Numeracy	<ul style="list-style-type: none"> <li>Monitor control points and adjust product flow rate for equipment</li> <li>Monitor mixing times for the mincing process</li> </ul>
Navigate the world of work	<ul style="list-style-type: none"> <li>Apply workplace procedures relevant to own role</li> <li>Understand main tasks, responsibilities and boundaries of own role, including personal protective clothing and equipment, housekeeping standards and environmental care requirements</li> </ul>
Interact with others	<ul style="list-style-type: none"> <li>Report operational and safety information using required communication method</li> </ul>
Get the work done	<ul style="list-style-type: none"> <li>Solve routine problems according to workplace guidelines</li> </ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
AMPP201 Operate a poultry dicing, stripping or mincing process	FDFPO2001A Operate a dicing, stripping or mincing process	<p>Updated to meet Standards for Training Packages</p> <p>Code and title updated to reflect changed training package</p>	Equivalent unit

## Links

Companion Volumes, including Implementation Guides, are available at VETNet: - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=5e2e56b7-698f-4822-84bb-25adbb8443a7>

## Assessment Requirements for AMPP201 Operate a poultry dicing, stripping or mincing process

### Modification History

Release	Comments
Release 1	This version released with Australian Meat Industry Training Package Version 3.0.

### Performance Evidence

An individual demonstrating competency must satisfy all the elements and performance criteria in this unit. There must be evidence that the individual has demonstrated the dicing, stripping or mincing process at least once, including:

- confirming availability of materials for dicing, stripping or mincing process
- identifying and applying safe work practices
- selecting, fitting and using appropriate personal protective clothing and equipment
- conducting pre-start checks on machinery used for dicing, stripping or mincing
- starting, operating, monitoring and adjusting dicing, stripping or mincing process equipment to achieve required quality outcomes
- taking corrective action in response to typical faults and inconsistencies
- completing workplace records in required format
- safely shutting down equipment
- applying food safety procedures to work practices.

### Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- purpose and basic principles of the dicing, stripping and mincing process, including temperature generated by the process and effect on product
- basic operating principles and parameters of equipment, including the main equipment components, status and purpose of guards, equipment operating capacities and applications, and the purpose and location of sensors and related feedback instrumentation
- operating requirements and parameters and corrective action required where operation is outside specified operating parameters
- typical equipment faults and related causes, including signs and symptoms of faulty equipment and early warning signs of potential problems

- services required for the dicing, stripping and mincing process and action to take if services are not available
- quality characteristics to be achieved by the dicing, stripping and mincing process
- quality requirements of materials suitable for processing and effect of variation on process performance
- methods used to monitor the process, including inspecting, measuring and testing
- inspection or test points (control points) in the process and the related procedures and recording requirements
- contamination and food safety risks associated with the dicing and stripping and mincing process, and related control measures
- typical health and safety hazards associated with the poultry product dicing, stripping or mincing process and controls to managing hazards
- requirements of different shutdowns as appropriate to the dicing, stripping and mincing process, and workplace production requirements, including emergency and routine shutdowns and procedures to follow in the event of a power outage
- workplace requirements for recording and reporting production and performance information
- environmental issues and controls relevant to the dicing, stripping and mincing process, including waste and rework collection and handling procedures
- workplace cleaning and sanitation procedures relevant to the poultry product dicing, stripping or mincing process.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - a poultry production workplace or an environment that accurately represents workplace conditions
- resources, equipment and materials:
  - personal protective clothing and equipment
  - dicing, stripping and mincing equipment and tubs
  - raw product and associated additives or seasonings
  - testing equipment
  - cleaning materials and equipment
  - workplace information recording system
- specifications:
  - work procedures, including safe work practices, food safety, quality, cleaning and environmental requirements
  - information on equipment capacity and operating parameters
  - production schedule/batch instructions
  - sampling schedules and test procedures
  - recording requirements and procedures.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volumes, including Implementation Guides, are available at VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=5e2e56b7-698f-4822-84bb-25adbb8443a7>

## AMPP202 Operate a poultry evisceration process

### Modification History

Release	Comments
Release 1	This version released with AMP Australian Meat Industry Training Package Version 3.0.

### Application

This unit of competency describes the skills and knowledge required to set up, operate, adjust and shut down the evisceration process to deliver the poultry carcase ready for chilling.

This unit applies to individuals who apply basic operating principles to the operation and monitoring of evisceration equipment and processes in a poultry production environment.

All work must be carried out to comply with workplace procedures, in accordance with State/Territory food safety, work health and safety, and environmental codes, regulations, legislation and standards that apply to the workplace.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

### Pre-requisite Unit

Nil

### Unit Sector

Poultry Processing (P)

### Elements and Performance Criteria

Elements	Performance criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare the evisceration equipment and process for operation	1.1 Confirm poultry carcasses are available to meet process requirements 1.2 Identify and confirm cleaning and maintenance requirements and status

Elements	Performance criteria
	1.3 Identify and fit personal protective clothing and equipment as required by workplace safety procedures 1.4 Adjust equipment to meet safety and production requirements 1.5 Check equipment performance and adjust if required, to meet process requirements 1.6 Conduct pre-start checks according to workplace requirements
2. Operate and monitor the evisceration process	2.1 Start up and operate the evisceration process according to health and safety, food safety and environmental guidelines 2.2 Monitor equipment to identify variation in operating conditions 2.3 Identify and report variations in equipment operation and maintenance requirements 2.4 Remove viscera to specifications 2.5 Identify, rectify or report out-of-specification product or process outcomes 2.6 Maintain the work area according to workplace cleaning and sanitation standards 2.7 Maintain workplace records in required format
3. Shut down the evisceration process	3.1 Identify and implement the appropriate shutdown procedure 3.2 Identify and report maintenance requirements according to workplace procedures

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"> <li>Interpret standard operating procedures and machinery operation requirements</li> </ul>
Writing	<ul style="list-style-type: none"> <li>Complete records according to workplace guidelines</li> </ul>
Numeracy	<ul style="list-style-type: none"> <li>Monitor supply and flow of carcasses to and from the evisceration process</li> </ul>
Navigate the world of work	<ul style="list-style-type: none"> <li>Apply workplace procedures relevant to own role</li> <li>Understand main tasks, responsibilities and boundaries of own role,</li> </ul>



Skill	Description
	including use of personal protective clothing and equipment, housekeeping standards and environmental care requirements
Interact with others	<ul style="list-style-type: none"><li>Report operational and safety information using required communication method</li></ul>
Get the work done	<ul style="list-style-type: none"><li>Solve routine problems according to workplace guideline</li></ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
AMPP202 Operate a poultry evisceration process	FDFPO2002A Operate an evisceration process	Updated to meet Standards for Training Packages  Code and title updated to reflect changed training package	Equivalent unit

## Links

Companion Volumes, including Implementation Guides, are available at VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=5e2e56b7-698f-4822-84bb-25adbb8443a7>

# Assessment Requirements for AMPP202 Operate a poultry evisceration process

## Modification History

Release	Comments
Release 1	This version released with AMP Australian Meat Industry Training Package Version 3.0.

## Performance Evidence

An individual demonstrating competency must satisfy all of the elements and performance criteria in this unit.

There must be evidence that the individual has demonstrated the poultry evisceration process at least once, including:

- confirming availability of materials
- identifying and applying safe work practices
- selecting, fitting and using appropriate personal protective clothing and equipment
- conducting pre-start checks on machinery used for evisceration
- starting, operating, monitoring and adjusting evisceration process equipment to achieve required quality outcomes
- taking corrective action in response to typical faults and inconsistencies
- completing workplace records in required format
- safely shutting down equipment
- applying food safety procedures to work practices.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- purpose and basic principles of the evisceration process, including the internal organs of birds, package removal requirements and consequences of poor removal processes
- basic operating principles of equipment, including main equipment components, status and purpose of guards, equipment operating capacities and applications, and the purpose and location of sensors and related feedback instrumentation
- services required for an evisceration process and action to take if services are not available
- adjustments required to take account of different bird size and type
- quality characteristics to be achieved by each stage of the evisceration process
- the effect of each stage of the evisceration process on the quality of the end product

- the effect of variation in carcase condition and age on evisceration process and outcomes
- operating requirements and parameters and corrective action required where operation is outside specified operating parameters
- typical equipment faults and related causes, including signs and symptoms of faulty equipment and early warning signs of potential problems
- methods used to monitor the evisceration process
- inspection or test points (control points) in the process and the related procedures and recording requirements
- contamination and food safety risks associated with the evisceration process and related control measures
- work health and safety hazards associated with the evisceration process and controls, including the use of personal protective equipment and the limitations of personal protective equipment
- requirements of different shutdowns as appropriate to the evisceration process and workplace production requirements, including emergency and routine shutdowns and procedures to follow in the event of a power outage
- requirements for reporting production and performance information
- environmental issues and controls relevant to the evisceration process, including waste and rework collection and handling procedures related to the process
- workplace cleaning and sanitation procedures relevant to the poultry evisceration process.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - a poultry production workplace or an environment that accurately represents workplace conditions
- resources, equipment and materials:
  - personal protective clothing and equipment
  - evisceration equipment and services
  - carcases
  - testing equipment
  - cleaning materials and equipment
  - workplace information recording system
- specifications:
  - work procedures, including safe work practices, food safety, quality, cleaning and environmental requirements
  - information on equipment capacity and operating parameters
  - production schedule/batch instructions
  - sampling schedules and test procedures
  - recording requirements and procedures.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volumes, including Implementation Guides, are available at VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=5e2e56b7-698f-4822-84bb-25adbb8443a7>

## AMPP203 Grade poultry carcase

### Modification History

Release	Comments
Release 1	This version released with AMP Australian Meat Industry Training Package Version 3.0.

### Application

This unit of competency describes the skills and knowledge required to identify and grade poultry carcase quality for further processing or packing.

This unit applies to individuals who grade carcasses in a poultry production environment.

All work must be carried out to comply with workplace procedures, in accordance with State/Territory food safety, work health and safety, and environmental codes, regulations, legislation and standards that apply to the workplace.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

### Pre-requisite Unit

Nil

### Unit Sector

Poultry Processing (P)

### Elements and Performance Criteria

Elements	Performance criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare the grading process for operation	1.1 Confirm the availability of washed and chilled carcasses to meet the process requirements  1.2 Identify and fit appropriate personal protective clothing and equipment as required by workplace safety procedures

Elements	Performance criteria
2. Inspect and grade carcasses	2.1 Inspect and grade carcasses to workplace quality specifications 2.2 Identify, rectify or report out-of-specification product or process outcomes according to workplace requirements 2.3 Maintain the work area according to workplace cleaning and sanitation standards
3. Complete the grading process	3.1 Follow workplace procedures to shut down the process 3.2 Maintain workplace records in required format

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"> <li>Interpret standard operating procedures and machinery operation requirements</li> </ul>
Writing	<ul style="list-style-type: none"> <li>Complete records according to workplace guidelines</li> </ul>
Numeracy	<ul style="list-style-type: none"> <li>Monitor supply and flow of carcasses to and from the grading process</li> </ul>
Navigate the world of work	<ul style="list-style-type: none"> <li>Apply workplace procedures relevant to own role</li> <li>Understand main tasks, responsibilities and boundaries of own role, including use of personal protective clothing and equipment, housekeeping standards and environmental care requirements</li> </ul>
Interact with others	<ul style="list-style-type: none"> <li>Report operational and safety information using required communication method</li> </ul>
Get the work done	<ul style="list-style-type: none"> <li>Solve routine problems according to workplace guidelines</li> </ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
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Code and title current version	Code and title previous version	Comments	Equivalence status
AMPP203 Grade poultry carcase	FDFPO2003A Grade carcass	Updated to meet Standards for Training Packages  Minor changes to unit to clarify intent  Code and title updated to reflect changed training package	Equivalent unit

## Links

Companion Volumes, including Implementation Guides, are available at VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=5e2e56b7-698f-4822-84bb-25adbb8443a7>

## Assessment Requirements for AMPP203 Grade poultry carcase

### Modification History

Release	Comments
Release 1	This version released with AMP Australian Meat Industry Training Package Version 3.0.

### Performance Evidence

An individual demonstrating competency must satisfy all of the elements and performance criteria in this unit. There must be evidence that the individual has graded at least three different carcasses, including:

- identifying and applying safe work practices
- selecting, fitting and using appropriate personal protective clothing and equipment
- assessing the quality of carcase
- deciding on the grade of carcase
- identifying out-of-specification carcasses
- completing workplace records in required format
- safely shutting down equipment
- applying food safety procedures to work practices.

### Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- purpose of the grading and weighing process, including grading criteria and specifications at each level and the uses of product at each grade
- common types of damage or out-of-specification conditions and likely causes, including damage likely to be caused by poor handling of the carcase
- methods used to grade carcasses, including visual inspection
- contamination and food safety risks associated with the grading process and related control measures
- work health and safety hazards associated with the grading process and related controls
- procedures for taking the grading process offline in preparation for cleaning and maintenance
- requirements for recording production and performance information
- workplace cleaning and sanitation procedures relevant to the poultry grading process
- environmental issues and controls relevant to the grading process, including waste collection and handling procedures related to the process.



## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - a poultry production workplace or an environment that accurately represents workplace conditions
- resources, equipment and materials:
  - personal protective clothing and equipment
  - carcases to be graded
  - cleaning materials and equipment
  - workplace information recording system
- specifications:
  - work procedures, including safe work practices, food safety, quality, cleaning and environmental requirements
  - information on equipment capacity and operating parameters
  - production schedule/batch instructions
  - sampling schedules and test procedures
  - recording requirements and procedures.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volumes, including Implementation Guides, are available at VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=5e2e56b7-698f-4822-84bb-25adbb8443a7>

## AMPP204 Harvest edible poultry offal

### Modification History

Release	Comments
Release 1	This version released with AMP Australian Meat Industry Training Package Version 3.0.

### Application

This unit of competency describes the skills and knowledge required to sort, harvest and clean edible poultry offal.

This unit applies to individuals who apply basic operating principles to the operation and monitoring of edible offal harvesting equipment and processes in a poultry production environment.

All work must be carried out to comply with workplace procedures, in accordance with State/Territory food safety and work health and safety, regulations and legislation that apply to the workplace.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

### Pre-requisite Unit

Nil

### Unit Sector

Poultry Processing (P)

### Elements and Performance Criteria

Elements	Performance criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare the harvesting equipment and process for operation	1.1 Ensure the availability of product to meet production requirements 1.2 Identify and fit personal protective clothing and equipment as

Elements	Performance criteria
	<p>required by workplace safety procedures</p> <p>1.3 Check equipment is ready for use</p> <p>1.4 Carry out pre-start checks according to workplace requirements</p>
2. Harvest and sort edible offal	<p>2.1 Start up and operate the harvesting and sorting process according to health and safety, food safety and environmental guidelines</p> <p>2.2 Identify edible offal according to workplace guidelines</p> <p>2.2 Separate, sort and collect offal to meet production requirements</p> <p>2.3 Monitor and identify, rectify or report out-of-specification product or process outcomes and equipment</p> <p>2.4 Identify and set aside offal of unacceptable quality</p> <p>2.5 Maintain the work area according to workplace cleaning and sanitation standards</p> <p>2.6 Maintain workplace records in required format</p>
3. Shut down the offal harvesting process	<p>3.1 Collect, handle and remove edible offal according to workplace procedures</p> <p>3.2 Dispose of offal waste according to workplace procedures</p> <p>3.3 Identify and follow workplace procedures for shutting down the process</p> <p>3.4 Identify and report maintenance requirements according to workplace procedures</p>

## Foundation Skills

This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.

Skill	Description
Reading	<ul style="list-style-type: none"> <li>Interpret standard operating procedures</li> </ul>
Writing	<ul style="list-style-type: none"> <li>Complete records according to workplace guidelines</li> </ul>
Numeracy	<ul style="list-style-type: none"> <li>Monitor supply and flow of materials to and from the harvesting and cleaning process</li> </ul>
Navigate the world of work	<ul style="list-style-type: none"> <li>Apply workplace procedures relevant to own role</li> <li>Understand main tasks, responsibilities and boundaries of own role,</li> </ul>

Skill	Description
	including use of personal protective clothing and equipment, housekeeping standards and environmental care requirements
Interact with others	<ul style="list-style-type: none"><li>Report operational and safety information using required communication method</li></ul>
Get the work done	<ul style="list-style-type: none"><li>Solve routine problems according to workplace guidelines</li></ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
AMPP204 Harvest edible poultry offal	FDFPO2004A Harvest edible offal	Updated to meet Standards for Training Packages  Code and title updated to reflect changed training package	Equivalent unit

## Links

Companion Volumes, including Implementation Guides, are available at VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=5e2e56b7-698f-4822-84bb-25adbb8443a7>

# Assessment Requirements for AMPP204 Harvest edible poultry offal

## Modification History

Release	Comments
Release 1	This version released with AMP Australian Meat Industry Training Package Version 3.0.

## Performance Evidence

An individual demonstrating competency must satisfy all of the elements and performance criteria in this unit.

There must be evidence that the individual has demonstrated all steps of the offal harvesting process at least once, including:

- confirming availability of materials
- selecting, fitting and using appropriate personal protective clothing and equipment
- conducting pre-start checks on machinery used for harvesting edible offal
- starting, operating, monitoring and adjusting process equipment to achieve required quality outcomes
- taking corrective action in response to typical faults and inconsistencies
- completing workplace records in required format
- applying safe work practices and identified work health and safety hazards and controls
- safely shutting down offal harvesting equipment
- applying food safety procedures to work practices.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- purpose and basic principles of the offal harvesting and cleaning process, including the structure and internal organs of poultry to identify, separate and remove
- contamination that can occur when offal is not correctly removed
- basic operating principles of equipment, such as main equipment components, their purpose and operating capacities, and the status and purpose of guards
- typical equipment faults and related causes, including signs and symptoms of faulty equipment
- quality standards for types of edible offal collected

- methods used to monitor the harvesting process, including inspecting, measuring and testing
- inspection points (control points) in the harvesting and cleaning process and the related procedures and recording requirements
- contamination and food safety risks associated with the harvesting process and related control measures
- work health and safety hazards and controls, including the limitations of personal protective equipment relevant to the harvesting of offal
- requirements of different shutdowns as appropriate to the harvesting and cleaning process and workplace production requirements, including emergency and routine shutdowns and procedures to follow in the event of a power outage
- requirements for reporting production and performance information
- environmental issues and controls relevant to the harvesting process, including waste and rework collection, handling and recycling procedures
- workplace cleaning and sanitation procedures relevant to the harvesting process.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - a poultry production workplace or an environment that accurately represents workplace conditions
- resources, equipment and materials:
  - personal protective clothing and equipment
  - offal harvesting, cleaning and washing equipment, accessories and services
  - offal to be harvested
  - cleaning materials and equipment
  - workplace information recording system
- specifications:
  - edible offal specifications, control points and processing parameters
  - work procedures, including advice on safe work practices, food safety, quality, cleaning and environmental requirements
  - information on equipment capacity and operating parameters
  - production schedule and batch instructions
  - recording requirements and procedures.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volumes, including Implementation Guides, are available at VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=5e2e56b7-698f-4822-84bb-25adbb8443a7>



## AMPP205 Operate a poultry marinade injecting process

### Modification History

Release	Comments
Release 1	This version released with Australian Meat Industry Training Package Version 3.0.

### Application

This unit of competency describes the skills and knowledge required to set up, operate, adjust and shut down a poultry marinade injection process.

This unit applies to individuals who apply basic operating principles to the operation and monitoring of marinade injecting equipment and processes in a poultry production environment.

All work must be carried out to comply with workplace procedures, in accordance with State/Territory food safety, work health and safety, and environmental codes, regulations, legislation and standards that apply to the workplace.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

### Pre-requisite Unit

Nil

### Unit Sector

Poultry Processing (P)

### Elements and Performance Criteria

Elements	Performance criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare the marinade injection equipment and process for operation	1.1 Confirm materials are available to meet production requirements 1.2 Identify and confirm cleaning and maintenance requirements



Elements	Performance criteria
	1.3 Identify and fit personal protective clothing and equipment as required by workplace safety procedures 1.4 Fit and adjust machine components and related attachments to meet requirements 1.5 Enter processing or operating parameters required for the process 1.6 Check and adjust equipment performance to meet process requirements 1.7 Conduct pre-start checks according to workplace requirements
2. Operate and monitor the marinade injection process	2.1 Prepare and load marinade to meet production requirements 2.2 Start up and operate the process according to workplace procedures 2.3 Monitor equipment to identify variation in operating conditions and adjust or report variations according to production requirements 2.4 Monitor each stage of the process to confirm specifications are met 2.5 Identify, rectify or report out-of-specification product or process outcomes 2.6 Maintain the work area according to workplace cleaning and sanitation procedures 2.7 Maintain workplace records in required format
3. Shut down the marinade injection process	3.1 Identify and implement the appropriate shutdown procedure 3.2 Identify and report maintenance requirements

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"> <li>Interpret standard operating procedures for the marinade injecting process</li> </ul>
Writing	<ul style="list-style-type: none"> <li>Complete records according to workplace guidelines</li> </ul>
Numeracy	<ul style="list-style-type: none"> <li>Monitor marinade level and temperature</li> <li>Monitor supply and flow of marinade and poultry to and from the</li> </ul>

Skill	Description
	marinade injection process
Navigate the world of work	<ul style="list-style-type: none"><li>Apply workplace procedures relevant to own role</li><li>Understand main tasks, responsibilities and boundaries of own role, including use of personal protective clothing and equipment, housekeeping standards and environmental care requirements</li></ul>
Interact with others	<ul style="list-style-type: none"><li>Report operational and safety information to relevant personnel using required communication method</li></ul>
Get the work done	<ul style="list-style-type: none"><li>Solve routine problems according to workplace guidelines</li></ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
AMPP205 Operate a poultry marinade injecting process	FDFPO2005A Operate a marinade injecting process	Updated to meet Standards for Training Packages  Code and title updated to reflect changed training package	Equivalent unit

## Links

Companion Volumes, including Implementation Guides, are available at VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=5e2e56b7-698f-4822-84bb-25adbb8443a7>

# Assessment Requirements for AMPP205 Operate a poultry marinade injecting process

## Modification History

Release	Comments
Release 1	This version released with Australian Meat Industry Training Package Version 3.0.

## Performance Evidence

An individual demonstrating competency must satisfy all of the elements, performance criteria in this unit. There must be evidence that the individual has demonstrated all steps of at least one complete marinade injecting process, including:

- confirming availability of materials
- selecting, fitting and using appropriate personal protective equipment
- conducting pre-start checks on machinery used for marinade injecting process
- starting, operating, monitoring and adjusting marinade injecting process equipment to achieve required quality outcomes
- taking corrective action in response to typical faults and inconsistencies
- completing workplace records in required format
- applying safe work practices and identifying work health and safety hazards and controls
- safely shutting down equipment
- applying food safety procedures to work practices.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- purpose and basic principles of the marinade injection process
- basic operating principles and parameters of equipment, such as main equipment components, including pumps and needle bed, status and purpose of guards, equipment operating capacities and applications, and the purpose and location of sensors and related feedback instrumentation
- typical equipment faults and related causes, including signs and symptoms of faulty equipment and early warning signs of potential problems
- corrective action required where operation is outside specified operating parameters
- the effect of marinade injection process on the quality of end product
- the flow of the marinade injection process and the effect of outputs on downstream processes

- quality characteristics to be achieved by the marinade injection process
- quality requirements of marinade and bird carcasses and effect of variation on process performance
- methods used to monitor the marinade injection process, including inspecting, measuring and testing as required by the process
- inspection or test points (control points) in the marinade injection process and the related procedures and recording requirements
- contamination and food safety risks associated with the marinade injection process and related control measures, including equipment checks required and traceability procedures to be followed where a broken or damaged needle is identified
- work health and safety hazards relevant to the poultry marinade process and appropriate controls
- requirements of different shutdowns as appropriate to the process and workplace production requirements, including emergency and routine shutdowns and procedures to follow in the event of a power outage
- requirements for recording and reporting production and performance information
- environmental issues and controls relevant to the marinade injection process, including waste/rework collection, recycling and handling procedures related to the process
- workplace cleaning and sanitation procedures relevant to the marinade injection process.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - a poultry production workplace or an environment that accurately represents workplace conditions
- resources, equipment and materials:
  - personal protective clothing and equipment
  - marinade preparation and injection and conveying process and related equipment and services
  - poultry and marinade mix for processing
  - cleaning materials and equipment
  - workplace information recording system
- specifications:
  - work procedures, including advice on safe work practices, food safety, cleaning, quality and environmental requirements
  - information on equipment capacity, control points and operating parameters
  - production schedule/batch instructions
  - recording requirements and procedures.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volumes, including Implementation Guides, are available at VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=5e2e56b7-698f-4822-84bb-25adbb8443a7>

## AMPP206 Operate a poultry washing and chilling process

### Modification History

Release	Comments
Release 1	This version released with AMP Australian Meat Industry Training Package Version 3.0.

### Application

This unit of competency describes the skills and knowledge required to set up, operate, adjust and shut down spin and/or air chilling equipment used to wash and chill poultry carcasses.

This unit applies to individuals who apply basic operating principles to the operation and monitoring of washing and chilling equipment and processes in a poultry production environment.

All work must be carried out to comply with workplace procedures, in accordance with State/Territory food safety, work health and safety, and environmental codes, regulations, legislation and standards that apply to the workplace.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

### Pre-requisite Unit

Nil

### Unit Sector

Poultry Processing (P)

### Elements and Performance Criteria

Elements	Performance criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare the chilling equipment and process for operation	1.1 Confirm suitable carcasses are available 1.2 Identify and confirm cleaning and maintenance requirements 1.3 Identify and fit personal protective clothing and equipment as

Elements	Performance criteria
	<p>required by workplace safety procedures</p> <p>1.4 Enter processing or operating parameters to meet requirements</p> <p>1.5 Check and adjust equipment performance</p> <p>1.6 Conduct pre-start checks according to workplace requirements</p>
2. Operate and monitor the chilling process	<p>2.1 Start up and operate the chilling process according to workplace requirements</p> <p>2.2 Monitor equipment to identify variation in operating conditions and adjust or report variations according to production requirements</p> <p>2.3 Monitor each stage of the process to confirm specifications are met</p> <p>2.4 Identify, rectify or report out-of-specification product or process outcomes</p> <p>2.5 Maintain the work area according to workplace cleaning and sanitation requirements</p> <p>2.6 Enter workplace records in required format</p>
3. Shut down the chilling process	<p>3.1 Identify and implement the appropriate shutdown procedure</p> <p>3.2 Identify and report maintenance requirements</p>

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"> <li>Interpret standard operating procedures for the washing and chilling process</li> </ul>
Writing	<ul style="list-style-type: none"> <li>Complete records according to workplace guidelines</li> </ul>
Numeracy	<ul style="list-style-type: none"> <li>Monitor control points for air and water temperature and water tank levels</li> <li>Monitor carcase immersion time</li> </ul>
Navigate the world of work	<ul style="list-style-type: none"> <li>Apply workplace procedures relevant to own role</li> <li>Understand main tasks, responsibilities and boundaries of own role, including use of personal protective clothing and equipment, housekeeping standards and environmental care requirements</li> </ul>

Skill	Description
Interact with others	<ul style="list-style-type: none"><li>Report operational and safety information to relevant personnel using required communication method</li></ul>
Get the work done	<ul style="list-style-type: none"><li>Solve routine problems according to workplace guidelines</li></ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
AMPP206 Operate a poultry washing and chilling process	FDFPO2006A Operate a washing and chilling process	Updated to meet Standards for Training Packages  Code and title updated to reflect changed training package	Equivalent unit

## Links

Companion Volumes, including Implementation Guides, are available at VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=5e2e56b7-698f-4822-84bb-25adbb8443a7>



## Assessment Requirements for AMPP206 Operate a poultry washing and chilling process

### Modification History

Release	Comments
Release 1	This version released with AMP Australian Meat Industry Training Package Version 3.0.

### Performance Evidence

An individual demonstrating competency must satisfy all the elements and performance criteria in this unit. There must be evidence that the individual has demonstrated at least one entire washing and chilling process, including:

- confirming availability of materials and equipment
- selecting, fitting and using appropriate personal protective equipment
- conducting pre-start checks on machinery used for a washing and chilling process
- starting, operating, monitoring and adjusting washing and chilling process equipment to achieve required quality outcomes
- taking corrective action in response to typical faults and inconsistencies
- completing workplace records in required format
- applying safe work practices and identified work health and safety hazards and controls
- safely shutting down equipment
- applying food safety procedures to work practices.

### Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- purpose and basic principles of the chilling process, including the purpose of both washing and chilling as it affects bacterial load
- basic operating principles and parameters of equipment, such as main equipment components, status and purpose of guards, equipment operating capacities and applications, and the purpose and location of sensors and related feedback instrumentation
- corrective action required where operation is outside specified operating parameters, such as specifications for temperature range of washers and chillers
- typical equipment faults and related causes, including signs and symptoms of faulty equipment and early warning signs of potential problems
- services required for the washing and chilling process and action to take if services are not available

- the effect of each stage on the quality of end product, including the relationship between immersion time, water temperature, and agitation on the amount of water absorbed by the carcase and on washing efficiency
- the flow of the chilling process and the effect of outputs on downstream processes
- quality characteristics to be achieved by the chilling process
- quality requirements of carcasses and materials and effect of variation on chilling process performance
- methods used to monitor the chilling process, such as inspecting, measuring and testing as required by the process
- inspection or test points (control points) in the chilling process and the related procedures and recording requirements, including procedures for measuring deep muscle temperature
- contamination and food safety risks associated with the chilling process and related control measures
- work health and safety hazards and controls relevant to poultry washing and chilling, including the limitations of protective clothing and equipment relevant to the work process
- requirements of different shutdowns as appropriate to the chilling process and workplace production requirements, including emergency and routine shutdowns and procedures to follow in the event of a power outage
- requirements for recording and reporting production and performance information
- workplace cleaning and sanitation procedures
- environmental issues and controls relevant to the chilling process, including waste and rework collection, handling and recycling procedures related to the process.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - a poultry production workplace or an environment that accurately represents workplace conditions
- resources, equipment and materials:
  - personal protective clothing and equipment
  - washing and chilling and conveying process, related equipment and services
  - carcasses to be washed and chilled
  - cleaning materials and equipment
  - workplace information recording system
- specifications:
  - work procedures, including advice on safe work practices, food safety, cleaning, quality and environmental requirements
  - information on equipment capacity, control points and operating parameters
  - production schedule/batch instructions
  - recording requirements and procedures.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volumes, including Implementation Guides, are available at VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=5e2e56b7-698f-4822-84bb-25adbb8443a7>

## AMPP207 Operate the bird receival and hanging process

### Modification History

Release	Comments
Release 1	This version released with AMP Australian Meat Industry Training Package Version 3.0.

### Application

This unit of competency describes the skills and knowledge required to receive and hang live poultry.

This unit applies to individuals who apply basic operating principles to the bird receival equipment and processes in a poultry processing environment.

All work must be carried out to comply with workplace procedures, in accordance with State/Territory food safety, work health and safety, and environmental codes, regulations, legislation and standards that apply to the workplace.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

### Pre-requisite Unit

Nil

### Unit Sector

Poultry Processing (P)

### Elements and Performance Criteria

Elements	Performance criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare the receiving and hanging equipment and process for operation	1.1 Confirm live birds are available for production requirements 1.2 Identify and confirm cleaning and maintenance requirements 1.3 Identify and fit personal protective clothing and equipment as required by workplace safety procedures

Elements	Performance criteria
	1.4 Fit and adjust machine components and related attachments according to production requirements 1.5 Conduct pre-start checks according to workplace requirements
2. Receive and hang birds	2.1 Inspect and confirm birds against load documentation 2.2 Operate conveyors and related equipment to meet unloading requirements 2.3 Monitor equipment to identify variation in operating conditions and adjust or report variations according to production requirements 2.4 Monitor each stage of the process to confirm specifications are met 2.5 Identify, rectify or report out-of-specification product or process outcomes 2.6 Inspect bird condition and remove unacceptable birds according to workplace procedures 2.7 Hang birds according to workplace procedures 2.8 Complete workplace records in required format
3. Shut down the receiving and hanging process	3.1 Identify and implement procedures for shutting down the receival conveyors and related equipment 3.2 Identify and report maintenance requirements according to workplace procedures

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"> <li>Interpret standard operating procedures for the bird receival and hanging process</li> </ul>
Writing	<ul style="list-style-type: none"> <li>Complete records according to workplace guidelines</li> </ul>
Numeracy	<ul style="list-style-type: none"> <li>Sequence receival and hanging activities to minimise time between receival and processing</li> <li>Check humidity gauges and ambient temperatures to maintain the receival environment</li> </ul>

Skill	Description
Navigate the world of work	<ul style="list-style-type: none"><li>• Apply workplace procedures relevant to own role</li><li>• Understand main tasks, responsibilities and boundaries of own role, including use of personal protective clothing and equipment, housekeeping standards and environmental care requirements</li></ul>
Interact with others	<ul style="list-style-type: none"><li>• Report operational and safety information to relevant personnel using required communication method</li></ul>
Get the work done	<ul style="list-style-type: none"><li>• Solve routine problems according to workplace guidelines</li></ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
AMPP207 Operate the bird receipt and hanging process	FDFPO2007A Operate the bird receipt and hanging process	Updated to meet Standards for Training Packages  Code updated to reflect changed training package	Equivalent unit

## Links

Companion Volumes, including Implementation Guides, are available at VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=5e2e56b7-698f-4822-84bb-25adbb8443a7>

# Assessment Requirements for AMPP207 Operate the bird receival and hanging process

## Modification History

Release	Comments
Release 1	This version released with AMP Australian Meat Industry Training Package Version 3.0.

## Performance Evidence

An individual demonstrating competency must satisfy all of the elements and performance criteria in this unit. There must be evidence that the individual has demonstrated the following steps of the bird receival and hanging process at least once:

- confirmed availability of materials including live poultry for hanging
- selected, fitted and used appropriate personal protective equipment
- conducted pre-start checks on machinery used for receiving and hanging birds
- started, operated, monitored and adjusted bird receival and hanging equipment to achieve required quality outcomes
- taken corrective action in response to typical faults and inconsistencies
- completed workplace records in required format
- applied safe work practices and identified work health and safety hazards and controls
- safely shut down bird receival and hanging equipment
- applied food safety procedures to work practices.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- basic principles of bird handling, including humane treatment of birds; conditions that stress birds; and environmental design features to minimise stress, such as airflow, humidity and temperature controls
- acceptable time from bird receival to bird processing and consequences of delays in processing on product quality
- the flow of the receival and hanging process on further processing or packing stages to produce a final product
- basic operating requirements of equipment used in the bird receival and hanging process and corrective action required where operation is outside specified operating parameters
- typical equipment faults and related causes, including signs and symptoms of faulty equipment and early warning signs of potential problems

- methods used to monitor the receival and hanging process, including monitoring that the receival process is paced to deliver birds to processing and/or packing areas without delay, bird condition is acceptable, the receival environment is appropriate and birds are shackled correctly
- consequences of poor receival and hanging on product quality
- work health and safety hazards and controls associated with the bird receival and hanging process
- environmental issues and controls relevant to the receival and hanging process, including procedures for disposing of dead or unfit birds
- requirements of different shutdowns as appropriate to the receival and hanging process and workplace production requirements, including emergency and routine shutdowns, and procedures to follow in the event of a power outage
- requirements for recording and reporting production and performance information
- typical workplace receival documentation and related load identification procedures.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - a poultry production workplace or an environment that accurately represents workplace conditions
- resources, equipment and materials:
  - personal protective clothing and equipment
  - receival, and hanging process and related equipment and services
  - birds to use in the process
  - workplace information recording system
- specifications:
  - work procedures, including advice on safe work practices, food safety, quality and environmental requirements
  - information on equipment capacity, control points and operating parameters
  - production schedule/batch instructions
  - recording requirements and procedures.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volumes, including Implementation Guides, are available at VETNet: - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=5e2e56b7-698f-4822-84bb-25adbb8443a7>



# AMPP208 Operate a poultry stunning, killing and defeathering process

## Modification History

Release	Comments
Release 1	This version released with AMP Australian Meat Industry Training Package Version 3.0.

## Application

This unit of competency describes the skills and knowledge required to set up, operate, adjust and shut down a process to stun, kill and defeather birds.

This unit applies to individuals who apply basic operating principles to the operation and monitoring of stunning, killing and defeathering equipment and processes in a poultry production environment.

All work must be carried out to comply with workplace procedures, in accordance with State/Territory food safety, work health and safety, and environmental codes, regulations, legislation and standards that apply to the workplace.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

## Pre-requisite Unit

Nil

## Unit Sector

Poultry Processing (P)

## Elements and Performance Criteria

Elements	Performance criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare the stun, kill and defeather equipment	1.1 Confirm birds are available to meet operational requirements

Elements	Performance criteria
and process for operation	1.2 Identify and confirm cleaning and maintenance requirements 1.3 Identify and fit personal protective clothing and equipment as required by workplace safety procedures 1.4 Fit and adjust machine components and related attachments 1.5 Enter processing or operating parameters required for the process 1.6 Check and adjust equipment performance to meet process requirements 1.7 Conduct pre-start checks according to workplace requirements
2. Monitor each stage of the stun, kill and defeather process	2.1 Start up and operate the stun, kill and defeathering process according to workplace procedures 2.2 Monitor equipment to identify variation in operating conditions and adjust or report variations according to production requirements 2.3 Monitor each stage of the process to confirm specifications are met 2.4 Confirm that birds are stunned, killed and bled to specification 2.5 Remove feathers and heads to specification 2.6 Identify, rectify or report out-of-specification product or process outcomes 2.7 Maintain the work area according to workplace cleaning and sanitation procedures 2.8 Maintain workplace records in required format
3. Shut down the stun, kill and defeather process	3.1 Identify and implement the appropriate shutdown procedure 3.2 Identify and report maintenance requirements

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"> <li>Interpret standard operating procedures for the stunning, killing and defeathering process</li> </ul>
Writing	<ul style="list-style-type: none"> <li>Complete records according to workplace guidelines</li> </ul>

Skill	Description
Numeracy	<ul style="list-style-type: none"><li>Monitor and adjust the stun, kill and defeather process control points including bleeding time, scald water temperature, immersion time and line speed</li><li>Monitor supply and flow of materials to and from the stun, kill and defeather process to the evisceration process</li></ul>
Navigate the world of work	<ul style="list-style-type: none"><li>Apply workplace procedures relevant to own role</li><li>Understand main tasks, responsibilities and boundaries of own role, including use of personal protective clothing and equipment, housekeeping standards and environmental care requirements</li></ul>
Interact with others	<ul style="list-style-type: none"><li>Report operational and safety information to relevant personnel using required communication method</li></ul>
Get the work done	<ul style="list-style-type: none"><li>Solve routine problems according to workplace guidelines and using experience of past solutions</li></ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
AMPP208 Operate a poultry stunning, killing and defeathering process	FDFPO2008A Operate a stunning, killing and defeathering process	Updated to meet Standards for Training Packages  Code and title updated to reflect changed training package	Equivalent unit

## Links

Companion Volumes, including Implementation Guides, are available at VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=5e2e56b7-698f-4822-84bb-25adbb8443a7>

## Assessment Requirements for AMPP208 Operate a poultry stunning, killing and defeathering process

### Modification History

Release	Comments
Release 1	This version released with AMP Australian Meat Industry Training Package Version 3.0.

### Performance Evidence

An individual demonstrating competency must satisfy all of the elements and performance criteria in this unit. There must be evidence that the individual has demonstrated all steps of a stunning, killing and defeathering process at least once including:

- confirming availability of materials including bird supply
- selecting, fitting and using appropriate personal protective equipment
- conducting pre-start checks on machinery used for stunning, killing and defeathering
- starting, operating, monitoring and adjusting stun, kill and defeathering process equipment to achieve required quality outcomes
- taking corrective action in response to typical faults and inconsistencies
- completing workplace records in required format
- applying safe work practices and identifying work health and safety hazards and controls
- shutting down equipment safely
- applying food safety procedures to work practices.

### Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- purpose and basic principles of each part of the stun, kill and defeather process
- basic principles of bird handling, including humane treatment of birds; conditions that stress birds; and environmental design features to minimise stress, such as airflow, humidity and temperature controls
- basic operating requirements and parameters of equipment used in the poultry stunning, killing and defeathering process and corrective action required where operation is outside specified operating parameters
- typical equipment faults and related causes, including signs and symptoms of faulty equipment and early warning signs of potential problems

- the effect of each stage on the quality of end product, including the relationship between the bleeding stage and final product quality and between scald temperature and immersion time on the defeathering stage
- quality characteristics to be achieved by the stun, kill and defeather process
- methods used to monitor the stun, kill and defeather process
- inspection or test points (control points) in the process and the related procedures
- contamination and food safety risks associated with the stun, kill and defeather process and related control measures
- work health and safety hazards and controls associated with poultry stunning, killing and defeathering process
- environmental issues and controls relevant to the stun, kill and defeather process, including systems in place to collect, treat and dispose of waste and by-products including blood, water, feathers and bird parts
- requirements of different shutdowns as appropriate to the stun, kill and defeather process and workplace production requirements, including emergency and routine shutdowns and procedures to follow in the event of a power outage
- requirements for recording and reporting production and performance information
- workplace cleaning and sanitation procedures relevant to the stun, kill and defeather process.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - a poultry production workplace or an environment that accurately represents workplace conditions
- resources, equipment and materials:
  - personal protective clothing and equipment
  - stunning, killing and defeathering equipment and related conveying process and services
  - birds to be processed
  - cleaning materials and equipment
  - workplace information recording system
- specifications:
  - work procedures, including advice on safe work practices, food safety, cleaning, quality and environmental requirements
  - information on equipment capacity, control points and operating parameters
  - production schedule
  - recording requirements and procedures.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volumes, including Implementation Guides, are available at VETNet -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=5e2e56b7-698f-4822-84bb-25adbb8443a7>

## AMPP301 Operate a poultry carcass delivery system

### Modification History

Release	Comments
Release 1	This version released with AMP Australian Meat Industry Training Package Version 3.0.

### Application

This unit of competency describes the skills and knowledge required to plan, set up and operate a carcass delivery system to deliver birds to the packaging area to meet production orders.

This unit applies to individuals who apply basic operating principles to the operation and monitoring of a carcass delivery system in a poultry production environment.

All work must be carried out to comply with workplace procedures, in accordance with State/Territory food safety, work health and safety, and environmental codes, regulations, legislation and standards that apply to the workplace.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

### Pre-requisite Unit

Nil

### Unit Sector

Poultry Processing (P)

### Elements and Performance Criteria

Elements	Performance criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare the poultry carcass delivery system for operation	1.1 Select and load computer program to suit product requirements 1.2 Control line start-up to meet production requirements 1.3 Identify bird drop requirements

Elements	Performance criteria
	1.4 Set system to meet production requirements 1.5 Identify and fit personal protective clothing and equipment as required by workplace safety procedures 1.6 Carry out pre-start checks according to workplace procedures
2. Monitor system operation	2.1 Enter new orders and set system parameters to meet requirements through the day 2.2 Adjust priorities to meet production and customer requirements 2.3 Monitor weight ranges and adjust system settings to meet customer orders 2.4 Identify variation in equipment operation and report maintenance requirements 2.5 Confirm that specifications are met 2.6 Identify, rectify or report out-of-specification product or process outcomes according to workplace requirements
3. Hand over system operation	3.1 Maintain workplace records in required format 3.2 Carry out handover according to workplace procedures 3.3 Ensure process operators are aware of system and related equipment status at completion of handover
4. Shut down the system	4.1 Identify and implement the appropriate shutdown procedure 4.2 Identify and report maintenance requirements according to workplace procedures
5. Contribute to continuous improvement of the system	5.1 Review system performance against output targets 5.2 Suggest opportunities for system improvements 5.3 Suggest improvements to operational procedures or processes

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"> <li>Interpret standard operating procedures and directions for the safe operation of equipment used in the carcass delivery system</li> </ul>



Skill	Description
Writing	<ul style="list-style-type: none"> <li>Records information related to equipment operation in required format</li> </ul>
Numeracy	<ul style="list-style-type: none"> <li>Confirm that number of birds matches production order requirements</li> <li>Monitor system operation including timely flow and delivery of birds to meet production requirements</li> </ul>
Navigate the world of work	<ul style="list-style-type: none"> <li>Apply workplace procedures relevant to own role</li> <li>Understand main tasks, responsibilities and boundaries of own role, including use of personal protective clothing and equipment, housekeeping standards and environmental care requirements</li> </ul>
Interact with others	<ul style="list-style-type: none"> <li>Use appropriate vocabulary, including technical language directly relevant to role</li> <li>Report system performance using required communication method</li> </ul>
Get the work done	<ul style="list-style-type: none"> <li>Identify and address routine problems according to workplace guidelines</li> </ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
AMPP301 Operate a poultry carcass delivery system	FDFPO3001A Operate a chickway system	<p>Updated to meet Standards for Training Packages</p> <p>Content updated to match current industry requirements</p> <p>Code and title updated to reflect changed training package</p>	Equivalent unit

## Links

Companion Volumes, including Implementation Guides, are available at VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=5e2e56b7-698f-4822-84bb-25adbb8443a7>

## Assessment Requirements for AMPP301 Operate a poultry carcase delivery system

### Modification History

Release	Comments
Release 1	This version released with AMP Australian Meat Industry Training Package Version 3.0.

### Performance Evidence

An individual demonstrating competency must satisfy all of the elements and performance criteria in this unit.

There must be evidence that the individual has demonstrated all steps to operate a carcase delivery system at least once, including:

- selecting and loading correct computer program
- selecting, fitting and using appropriate personal protective equipment
- conducting pre-start checks on system
- setting computer settings to meet production requirements
- starting, operating, monitoring and adjusting equipment to achieve required quality outcomes
- taking corrective action in response to typical faults and inconsistencies
- completing workplace records in required format
- applying safe work practices and identifying work health and safety hazards and controls
- conducting production handover
- safely shutting down equipment
- applying food safety procedures to work practices
- contributing to workplace improvements.

### Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- carcase delivery system configuration, including system flow, layout and drop points
- customer ordering procedures, including common terms used to describe product and order requirements, and criteria to apply to prioritise customer orders
- basic operating principles of equipment and programs used to:
  - deliver the required birds to the correct locations within constraints of birds available
  - generate system reports

- limits and ranges of system to adjust for weight distribution
- typical equipment faults and related causes, including signs and symptoms of faulty equipment and early warning signs of potential problems
- main alarms and corrective action required if alarms are activated
- systems and responsibilities for communicating required information to others
- hazards, risks and controls associated with a poultry carcase delivery system
- methods for monitoring work health and safety, food safety, quality and environmental hazards and risks
- workplace procedures for identifying and communicating system improvements.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - a poultry production workplace or an environment that accurately represents workplace conditions
- resources, equipment and materials:
  - personal protective clothing and equipment
  - system equipment and related accessories and services
  - birds for processing
  - packing area
  - workplace information recording system
- specifications:
  - information on equipment capacity and operating parameters
  - kill schedules, customer orders and related advice on system requirements
  - communication and recording procedures.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volumes, including Implementation Guides, are available at VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=5e2e56b7-698f-4822-84bb-25adbb8443a7>

## AMPP302 Debone and fillet poultry product (manually)

### Modification History

Release	Comments
Release 1	This version released with AMP Australian Meat Industry Training Package Version 3.0.

### Application

This unit of competency describes the skills and knowledge required to manually debone and fillet poultry within a poultry production environment.

This unit applies to individuals who apply basic operating principles to the operation and monitoring of manual deboning and filleting equipment and processes in a poultry production environment.

All work must be carried out to comply with workplace procedures, in accordance with State/Territory food safety, work health and safety, and environmental codes, regulations, legislation and standards that apply to the workplace.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

### Pre-requisite Unit

Nil

### Unit Sector

Poultry Processing (P)

### Elements and Performance Criteria

Elements	Performance criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare the deboning and filleting equipment and process for operation	1.1 Confirm washed and chilled carcasses or pieces are available 1.2 Clean and set equipment components to meet requirements 1.3 Identify and fit personal protective clothing and equipment as

Elements	Performance criteria
	<p>required by workplace safety procedures</p> <p>1.4 Check and adjust equipment performance to meet the process requirements</p> <p>1.5 Conduct pre-start checks according to workplace procedures</p>
2. Operate deboning and filleting process operation	<p>2.1 Deliver carcasses or pieces to the boning area according to process requirements</p> <p>2.2 Inspect carcasses or pieces to confirm quality specifications</p> <p>2.3 Remove bones and prepare fillets to specification</p> <p>2.4 Identify variation in equipment operation and rectify or report variation according to workplace requirements</p> <p>2.5 Identify, rectify or report out-of-specification product or process outcomes according to workplace procedures</p> <p>2.6 Clean equipment and maintain the work area according to workplace sanitation and hygiene procedures</p> <p>2.7 Maintain workplace records in required format</p>
3. Shut down the deboning/filleting process	<p>3.1 Identify and implement the appropriate shutdown procedure</p> <p>3.2 Identify and report maintenance requirements</p>

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"> <li>Interpret directions for the safe operation of manual deboning and filleting equipment</li> </ul>
Writing	<ul style="list-style-type: none"> <li>Complete records according to workplace guidelines</li> </ul>
Numeracy	<ul style="list-style-type: none"> <li>Monitor supply and flow of carcasses and pieces to the manual deboning and filleting process</li> </ul>
Navigate the world of work	<ul style="list-style-type: none"> <li>Apply workplace procedures relevant to own role</li> <li>Understand main tasks, responsibilities and boundaries of own role, including use of personal protective clothing and equipment, housekeeping standards and environmental care requirements</li> </ul>
Interact with	<ul style="list-style-type: none"> <li>Use appropriate vocabulary, including technical language directly</li> </ul>

Skill	Description
others	relevant to role <ul style="list-style-type: none"> <li>Report manual deboning process performance using required communication method</li> </ul>
Get the work done	<ul style="list-style-type: none"> <li>Identify and address routine problems according to workplace guidelines</li> </ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
AMPP302 Debone and fillet poultry product (manually)	FDFPO3002A Debone and fillet product (manually)	Updated to meet Standards for Training Packages  Code and title updated to reflect changed training package  Minor changes to elements and performance criteria for clarity	Equivalent unit

## Links

Companion Volumes, including Implementation Guides, are available at VETNet: - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=5e2e56b7-698f-4822-84bb-25adbb8443a7>

## Assessment Requirements for AMPP302 Debone and fillet poultry product (manually)

### Modification History

Release	Comments
Release 1	This version released with AMP Australian Meat Industry Training Package Version 3.0.

### Performance Evidence

An individual demonstrating competency must satisfy all of the elements and performance criteria in this unit.

There must be evidence that the individual has demonstrated all steps of the manual deboning and filleting process at least once, including:

- selecting, fitting and using appropriate personal protective equipment
- conducting pre-start checks on equipment used for deboning
- assessing carcase or pieces to ensure quality
- manually deboning and filleting poultry
- taking corrective action in response to typical faults and inconsistencies
- completing workplace records in required format
- applying safe work practices and identifying work health and safety hazards and controls
- cleaning deboning equipment
- applying food safety procedures to work practices.

### Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- purpose of the deboning and filleting process, including the skeletal structure of poultry products and the effect of this process on portion control and yield
- the flow of the deboning and filleting process and the effect of outputs on downstream processes
- quality characteristics to be achieved for the different types of cuts required, including the consequences of failing to remove bones and preparing fillets to specification
- quality requirements of carcasses and pieces suitable for processing and effect of variation on process performance
- knife techniques and handling, sharpening, cleaning and storage procedures

- basic operating principles of equipment components used in the deboning and filleting process
- typical equipment faults and related causes, including signs and symptoms of faulty equipment and early warning signs of potential problems
- contamination and food safety risks associated with the deboning and filleting process and related control measures
- work health and safety hazards and controls, including safety related to use of knives
- procedures and responsibility for recording and reporting production and performance information
- environmental issues and controls relevant to the deboning and filleting process, including waste collection and handling procedures related to the process
- workplace maintenance, cleaning and sanitation procedures.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - a poultry production workplace or an environment that accurately represents workplace conditions
- resources, equipment and materials:
  - personal protective clothing and equipment
  - deboning and filleting equipment and services
  - carcasses and pieces to be filleted
  - cleaning equipment and materials
  - workplace information recording system
- specifications:
  - work procedures, including advice on safe work practices, food safety, cleaning, quality and environmental requirements
  - information on equipment capacity, processing and operating parameters
  - production schedule/batch instructions
  - sampling schedules and test procedures
  - recording requirements and procedures.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volumes, including Implementation Guides, are available at VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=5e2e56b7-698f-4822-84bb-25adbb8443a7>



## AMPR322 Prepare and produce value added products

### Modification History

Release	TP Version	Comment
1	AMPv1.0	Initial release

### Application

This unit describes the skills and knowledge required to prepare and produce more complex value added products, such as those employing pastry, dairy products or cooking. It includes preparing ingredients and following recipes. The operation of processing equipment to produce value-added products may also be required.

This unit is applicable to workers in meat retailing and food services enterprises.

All training must be conducted in accordance with Australian meat industry standards and regulations.

All work should be carried out to comply with workplace requirements and hygiene standards.

This unit applies to individuals who work under broad direction and take responsibility for their own work.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

### Pre-requisite Unit

AMPX209 Sharpen knives

## Unit Sector

### Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Prepare and operate processing equipment used in producing value-added products	1.1 Prepared and operate processing equipment according to hygiene, and health and safety requirements 1.2 Identify faults in line with manufacturer and workplace requirements 1.3 Use equipment according to manufacturer, workplace and workplace health and safety requirements 1.4 Performed start-up and shut-down procedures according to manufacturer and workplace requirements
2. Clean processing equipment	2.1 Clean equipment to manufacturer's, workplace health and safety, hygiene and workplace requirements
3. Follow recipe	3.1 Follow recipes to prepare and produce value-added products to product specifications
4. Select ingredients for formulation of value-added products	4.1 Select ingredients in accordance with recipes, policy and practice, and regulatory requirements 4.2 Weigh ingredients in accordance with recipe specifications and regulatory requirements 4.3 Label ingredients according to workplace and regulatory requirements
5. Prepare meat, stuffings, seasonings and force meat for value-added products	5.1 Prepare meat according to recipes, policy and practice 5.2 Prepare stuffings, seasonings and force meat in accordance with recipes, policy and practice
6. Prepare pastry, marinades, sauces, and glazes for value-added product	6.1 Prepare pastry, marinades, sauces and glazes in accordance with recipes, policy and practice
7. Mix ingredients	7.1 Weigh ingredients in accordance with recipe requirements 7.2 Add ingredients to meat according to recipes, product specifications and regulatory requirements 7.3 Blend ingredients to achieve product consistency according to recipes and product specifications
8. Produce value-added products	8.1 Formulate product according to product specifications 8.2 Present product according to product specifications and policy

Element	Performance criteria
	and procedures 8.3 Use pastry types according to recipes and workplace requirements 8.4 Skewer meat according to recipes and workplace requirements
9. Store products and ingredients	9.1 Store product according to workplace and regulatory requirements 9.2 Store ingredients according to workplace and regulatory requirements 9.3 Identify shelf life of products and take appropriate action 9.4 Identify effects of ingredients on shelf life and take appropriate action

## Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

## Range of Conditions

## Unit Mapping Information

MTMR323A Prepare and produce value added products	E
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## Links

Companion Volume implementation guides are found in VETNet -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=5e2e56b7-698f-4822-84bb-25adbb8443a7>

# Assessment Requirements for AMPR322 Prepare and produce value added products

## Modification History

Release	TP Version	Comment
1	AMPv1.0	Initial release

## Performance Evidence

The candidate must be able to produce value-added meat products from a minimum of three species, using pastry, fresh produce, dried herbs and spices and marinades.

The candidate must:

- make adjustments to equipment when necessary according to manufacturer's, workplace and workplace health and safety requirements
- describe shelf life of products, factors affecting shelf life and effects of different ingredients on shelf life
- explain the permissible use of additives and ingredients in value-added products
- identify suitable alternatives from existing stock where quantities of required ingredients are not available, as applicable
- work with team members to develop new value-added products
- identify sub-standard product and rectify appropriately
- label value-added products according to workplace and regulatory requirements
- provide advice to customers on ingredients in value-added products
- seek advice on new recipes and products from appropriate sources
- use communication skills appropriate to the task
- use mathematical skills as required for production of value-added products
- estimate measures to verify calculations

## Knowledge Evidence

The candidate must demonstrate a factual, technical, procedural and theoretical knowledge of:

- regulatory requirements regarding use and storage of fruit and vegetables
- shelf life of products, factors affecting shelf life and effects of different ingredients on shelf life
- range of effects on the product and on consumer health of the use of incorrect and inadequate quantities of ingredients
- properties of correct blending

- purpose and use of processing equipment in the preparation of value-added products
- use and purpose of stuffings, seasoning and force meat in producing value-added products
- use and purposes of ingredients in producing value-added products
- quality requirements related to production of value-added products
- effect of various ingredients on product shelf life
- procedures for cleaning processing equipment
- workplace health and safety and hygiene requirements related to producing value-added products

## Assessment Conditions

Competency must be demonstrated over time and under typical operating conditions for the enterprise.

Assessment must occur in the workplace under normal operating conditions or in a simulated environment.

Where the candidate does not produce value-added products in their usual place of work they must complete the requirements of the unit in an alternative work placement or in a simulated environment.

The following three forms of assessment must be used:

- demonstration in the workplace or simulated environment
- quiz of underpinning knowledge
- workplace referee or third-party report of performance over time

Assessors must satisfy current standards for RTOs.

## Links

Companion Volume implementation guides are found in VETNet -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=5e2e56b7-698f-4822-84bb-25adbb8443a7>

## AMPX207 Vacuum pack product

### Modification History

Release	TP Version	Comment
1	AMPv2.0	Initial release

### Application

This unit describes the skills and knowledge required to pack meat products using vacuum packaging.

This unit is applicable to workers packing meat and meat products in boning rooms, offal rooms, smallgoods plants, wholesalers and food services operations. It is not applicable to small scale vacuum packaging in retail operations.

This unit must be delivered in the context of Australian meat processing standards and regulations.

All work should be carried out to comply with workplace and regulatory requirements.

This unit applies to individuals who work under general supervision, exercise limited autonomy and have some accountability for their own work.

### Pre-requisite Unit

Nil.

### Unit Sector

### Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Select packaging	1.1 Bag product in appropriately sized bag

Element	Performance criteria
	1.2 Arrange product in appropriate container
2. Set machine requirements	2.1 Complete requirements in preparation for start-up of vacuum packing machine to workplace requirements 2.2 Set machine requirements 2.3 Follow start-up procedures to workplace requirements 2.4 Attach and change packing materials to workplace requirements and product specification 2.5 Place bagged meat on the vacuum packing machine or in the formed pockets as appropriate 2.6 Place open ends of bags flat across the sealing bar or meat contained in pockets as appropriate 2.7 Follow workplace health and safety, hygiene and sanitation requirements
3. Operate machinery	3.1 Operate vacuum packaging machine in accordance with workplace requirements 3.2 Vacuum pack a variety of products to customer specifications, hygiene and sanitation, workplace health and safety, and Quality Assurance (QA) requirements at a speed that is the same as production requirements 3.3 Shrink bags using hot water baths where appropriate 3.4 Drain bagged cuts 3.5 Perform shut-down procedures to workplace requirements
4. Perform routine maintenance	4.1 Change dyes according to workplace requirements 4.2 Take corrective action when leaks and defects are identified, according to workplace requirements 4.3 Change plates as required
5. Ensure quality of packaging and product	5.1 Inspect bagged cuts for leaks and other defects 5.2 Place bagged cuts in cartons according to specifications

## Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

## Range of Conditions

## Unit Mapping Information

This unit is equivalent to MTMPSR201C Vacuum pack product.

## Links

Companion Volume implementation guides are found in VETNet -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=5e2e56b7-698f-4822-84bb-25adbb8443a7>



## Assessment Requirements for AMPX207 Vacuum pack product

### Modification History

Release	TP Version	Comment
1	AMPv2.0	Initial release

### Performance Evidence

The candidate must be observed vacuum packing products.

The candidate must:

- prepare for vacuum packaging according to workplace health and safety, and workplace requirements
- vacuum pack bagged cuts with no leaks or defects
- explain defects that can occur during packaging
- demonstrate hygienic cleaning of equipment
- demonstrate hygienic work practices for vacuum packing
- apply relevant communication and mathematical skills
- apply relevant regulatory requirements
- manage time and priorities

### Knowledge Evidence

The candidate must demonstrate a factual, technical, procedural and theoretical knowledge of:

- sub-standard or contaminated product and workplace procedures for dealing with sub-standard or contaminated product
- defects that can occur during packaging
- packaging requirements
- specific workplace health and safety requirements for vacuum packing
- purpose of vacuum packaging
- relevant communication and mathematical skills
- relevant regulatory requirements
- general operating principles, including start-up and shut-down procedures
- manufacturer's and workplace requirements for vacuum packaging of product

## Assessment Conditions

Competency should be demonstrated at the normal speed of production.

Assessment should take place in an operating meat processing plant or food service operation.

Recommended methods of assessment include:

- quiz of underpinning knowledge
- workplace demonstration or project
- workplace referee or third-party report of performance over time

Assessors must satisfy the current standards for RTOs.

## Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=5e2e56b7-698f-4822-84bb-25adbb8443a7>

## AMPX209 Sharpen knives

### Modification History

Release	TP Version	Comment
1	AMPv1.0	Initial release

### Application

This unit describes the skills and knowledge required to maintain knives for safe and effective use in a meat establishment.

This unit is applicable to any worker who is required to sharpen a knife to use in a processing, wholesaling or retail meat establishment. This unit is a pre-requisite for any other unit where a knife is used to perform a task.

This unit must be delivered in the context of Australian meat industry standards and regulations.

All work should be carried out in accordance with workplace requirements, regulatory requirements and hygiene standards.

This unit applies to individuals who work under general supervision, exercise limited autonomy and have some accountability for their own work.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

### Pre-requisite Unit

Nil.

## Unit Sector

## Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Sharpen knives	1.1 Sharpen knives according to workplace requirements 1.2 Sharpen knives to maintain bevel edge 1.3 Use steel correctly to maintain bevel edge and to meet workplace health and safety requirements
2. Work safely with others	2.1 Use knives in ways which minimise the risk of injury 2.2 Use knives safely at all times in accordance with workplace health and safety, hygiene and sanitation, and food safety requirements
3. Maintain knives and associated equipment	3.1 Maintain knives to hygiene and sanitation, and workplace requirements 3.2 Maintain, clean and store knife-sharpening equipment to hygiene and sanitation, and workplace requirements

## Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

## Range of Conditions

## Unit Mapping Information

MTMPSR203A Sharpen knives	E
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## Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=5e2e56b7-698f-4822-84bb-25adbb8443a7>

# Assessment Requirements for AMPX209 Sharpen knives

## Modification History

Release	TP Version	Comment
1	AMPv1.0	Initial release

## Performance Evidence

The candidate must be observed maintaining knives for safe and effective use in a meat establishment. Competency must be demonstrated in conjunction with a skill or task requiring the use of a knife. Evidence must demonstrate the candidate's consistency of performance over time.

The candidate must:

- steel a knife correctly
- use safe techniques of knife sharpening to workplace, hygiene and sanitation, and health and safety requirements

## Knowledge Evidence

The candidate must demonstrate a factual, technical, procedural and theoretical knowledge of:

- steps in steeling a knife to maintain edge
- technique to sharpen a knife with an appropriate bevel edge
- theory of knife sharpening
- sterilisation, and hygiene and sanitation requirements related to knife sharpening
- workplace health and safety issues related to the use and sharpening of knives
- relevant regulatory requirements

## Assessment Conditions

Assessment can be carried out in an actual or simulated workplace.

The following three forms of assessment must be used:

- quiz of underpinning knowledge
- workplace demonstration
- workplace referee or third party report of performance over time

Assessors must satisfy current standards for RTOs.

## Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=5e2e56b7-698f-4822-84bb-25adbb8443a7>

## BSBAUD501 Initiate a quality audit

### Modification History

Release	Comments
Release 1	This version first released with BSB Business Services Training Package Version 1.0.

### Application

This unit describes the skills and knowledge required to initiate and organise a quality audit with an auditee. It covers assessing the scope and objectives of a quality audit; communicating with the auditee regarding the proposed quality audit; identifying resources required to conduct the audit; and developing and submitting a quality audit plan. The types of audits may include external or internal systems audits or process or product/service audits.

It applies to individuals with a well-established theoretical knowledge base in quality auditing who are proficient in using a wide range of specialised, quality auditing and managerial techniques to plan, carry out and evaluate a quality audit. Individuals also supervise and monitor the processes and outcomes of others working in a quality audit team.

No licensing, legislative or certification requirements apply to this unit at the time of publication.

### Unit Sector

Regulation, Licensing and Risk – Quality Auditing

### Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1 Assess quality audit scope and objectives	1.1 Determine and discuss audit objectives with the auditee, client and all other relevant parties 1.2 Determine and discuss scope of the quality audit with the auditee, client and all other relevant parties

ELEMENT	PERFORMANCE CRITERIA
	<p>1.3 Identify relevant standards that impact the environment in which the audit operates</p> <p>1.4 Determine scope commensurate with identified risks</p>
2 Communicate with auditee regarding proposed quality audit	<p>2.1 Determine audit history, organisational structure and culture through consultation with the auditee</p> <p>2.2 Negotiate and ensure agreement with auditee, the proposed audit methods and techniques to be applied</p> <p>2.3 Outline audit processes to establish sequence of audit activities, and the roles of the auditors and auditees in the process</p>
3 Identify resources required to conduct quality audit	<p>3.1 Identify resources required to perform the quality audit efficiently and effectively</p> <p>3.2 Select audit team members on the basis of relevant expertise</p> <p>3.3 Confirm availability of resources required to conduct the audit with auditee</p> <p>3.4 Assign roles and responsibilities to audit team members</p>
4 Develop and submit quality audit plan	<p>4.1 Develop quality audit plan according to established scope and objectives</p> <p>4.2 Assign timing, schedules and responsibilities for implementation of the audit plan</p> <p>4.3 Develop audit priorities and ensure agreement with auditees and audit team members</p> <p>4.4 Document and submit audit plan to auditee</p>
5 Prepare audit team	<p>5.1 Inform audit team members of their responsibilities, audit objectives and scope</p> <p>5.2 Communicate audit plan and schedules to all audit team members</p> <p>5.3 Discuss and clarify audit methods and techniques with audit team members</p>
6 Review auditee documentation	<p>6.1 Review auditee's previous audits to establish possible impact on the conduct of the current audit</p> <p>6.2 Review and check relevant organisational documents for accuracy</p> <p>6.3 Resolve arising problems with auditee and relevant parties</p>
7 Identify and prepare checklists and audit	<p>7.1 Develop checklists to reflect audit scope and objectives</p>



ELEMENT	PERFORMANCE CRITERIA
related documentation	7.2 Develop or obtain documentation required for the audit 7.3 Prepare agenda for entry meeting 7.4 Include value-adding activities in audit related documentation where required

## Foundation Skills

*This section describes language, literacy, numeracy and employment skills incorporated in the performance criteria that are required for competent performance.*

Skill	Performance Criteria	Description
Reading	1.3, 4.1, 6.1, 6.2, 7.1	<ul style="list-style-type: none"> <li>Interprets and analyses information from organisational documentation</li> </ul>
Writing	4.1-4.4, 6.2, 7.1-7.4	<ul style="list-style-type: none"> <li>Develops a range of documents using structure, tone and vocabulary appropriate to audience, context and purpose</li> <li>Records or amends information and conveys details in accordance with audit objectives</li> </ul>
Oral Communication	1.1, 1.2, 2.1-2.3, 4.3, 5.1-5.3, 6.3	<ul style="list-style-type: none"> <li>Participates in spoken exchanges using structure and language to suit the audience</li> <li>Uses questioning and listening techniques to clarify requirements</li> </ul>
Numeracy	4.2	<ul style="list-style-type: none"> <li>Uses mathematical calculations for project scheduling</li> </ul>
Navigate the world of work	1.3	<ul style="list-style-type: none"> <li>Monitors adherence to organisational policies and relevant standards and considers own role in terms of its contribution to broader goals of the work environment</li> </ul>
Interact with others	1.1, 1.2, 2.1, 2.2, 3.4, 4.4, 5.1, 5.2	<ul style="list-style-type: none"> <li>Selects the appropriate form, channel and mode of communication for a specific purpose relevant to own role</li> <li>Recognises the importance of building rapport and building effective working relationships</li> <li>Collaborates with others to negotiate acceptable outcomes, playing an active role in facilitating effective group interaction</li> </ul>
Get the work done	1.1, 1.2, 1.4, 2.1, 2.3, 3.1, 3.2, 4.1,	<ul style="list-style-type: none"> <li>Organises, plans and sequences own workload and schedules work activities of others</li> <li>Uses analytical processes to decide on a course of</li> </ul>

	4.2, 4.3, 6.1, 6.3	<p>action, establishing criteria for deciding between options and seeking advice from others before taking action when necessary</p> <ul style="list-style-type: none"><li>• Addresses some unfamiliar problems of increasing complexity within own scope, recognising when to seek the expertise of others</li></ul>
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## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
BSBAUD501 Initiate a quality audit	BSBAUD501B Initiate a quality audit	Updated to meet Standards for Training Packages	Equivalent unit

## Links

Companion Volume implementation guides are found in VETNet -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=11ef6853-ceed-4ba7-9d87-4da407e23c10>

# Assessment Requirements for BSBAUD501 Initiate a quality audit

## Modification History

Release	Comments
Release 1	This version first released with BSB Business Services Training Package Version 1.0.

## Performance Evidence

Evidence of the ability to:

- produce documented audit plans for auditees across a variety of contexts including:
  - the scope and objectives of the audit
  - proposed audit methods and techniques to be used
  - required resources and schedules
  - allocation of individual audit team member responsibilities for conducting the proposed audit.
- use terminology relating to quality auditing in written or oral communications.

Note: If a specific volume or frequency is not stated, then evidence must be provided at least once.

## Knowledge Evidence

To complete the unit requirements safely and effectively, the individual must:

- identify the relevant auditing codes of practice or ethics
- describe auditing methods and techniques
- outline the requirements of auditing regulations and standards
- identify current audit practices
- outline quality auditing principles, techniques and systems
- describe the requirements of house or other style manual protocols for written communications
- identify software applications relevant to quality auditing activities.

## Assessment Conditions

Assessment must be conducted in a safe environment where evidence gathered demonstrates consistent performance of typical activities experienced in the regulation, licensing and risk – quality auditing field of work and include access to:

- workplace documentation including previous quality audit reports, checklists, risk management plans and audit plans.

Assessors must satisfy NVR/AQTF assessor requirements.

## Links

Companion Volume implementation guides are found in VETNet -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=11ef6853-ceed-4ba7-9d87-4da407e23c10>

## BSBAUD503 Lead a quality audit

### Modification History

Release	Comments
Release 1	This version first released with BSB Business Services Training Package Version 1.0.

### Application

This unit describes the skills and knowledge required to lead an audit team as it runs a quality audit. It covers conducting entry and exit meetings; identifying and gathering relevant information; managing audit team resources; and providing feedback to audit team members on their performance. The types of quality audit that may be covered by this unit include an external or internal systems audit or process or product/service audit.

It applies to individuals with a well-established theoretical knowledge base of quality auditing, who are proficient in using a wide range of specialised quality auditing and managerial techniques to carry out their own work and to supervise the quality audit team. It is relevant to audits where a lead auditor is responsible for a quality audit team.

No licensing, legislative or certification requirements apply to this unit at the time of publication.

### Unit Sector

Regulation, Licensing and Risk – Quality Auditing

### Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1 Conduct entry meeting	1.1 Organise entry meeting in advance at a mutually agreed time 1.2 Prepare agenda for audit 1.3 Confirm objectives and scope of audit at entry meeting 1.4 Confirm schedules and logistical arrangements at entry

ELEMENT	PERFORMANCE CRITERIA
	meeting 1.5 Make changes to plan, schedules and arrangements where required
2 Identify and gather information	2.1 Identify a range of potential sources of information 2.2 Interview appropriate persons 2.3 Gather relevant information and sample documentation
3 Manage audit team resources	3.1 Supervise activities of audit team members 3.2 Assess and review audit team findings in line with audit scope 3.3 Re-assign team members as required 3.4 Instigate contingency actions as required 3.5 Seek and reach agreement on corrective action reports
4 Conduct exit meeting	4.1 Make preparations for exit meeting 4.2 Examine results and findings against audit objectives and present to auditee 4.3 Ensure reporting arrangements are agreed on 4.4 Explain context and consequences of audit and discuss during follow-up
5 Guide team members in continuously improving their performance	5.1 Provide feedback on performance to audit team members 5.2 Encourage and support audit team members to critique their own work 5.3 Provide and document advice for individual improvement

## Foundation Skills

*This section describes language, literacy, numeracy and employment skills incorporated in the performance criteria that are required for competent performance.*

Skill	Performance Criteria	Description
Reading	3.2, 4.2	<ul style="list-style-type: none"> <li>Interprets and analyses information from audit scoping materials</li> </ul>
Writing	1.2, 1.5, 5.3	<ul style="list-style-type: none"> <li>Develops a range of documents using relevant structure, tone and vocabulary appropriate to audience,</li> </ul>

		context and purpose <ul style="list-style-type: none"> <li>Records or amends information and conveys details in accordance with audit objectives</li> </ul>
Oral Communication	1.3, 1.4, 2.2, 3.5, 4.2-4.4, 5.1, 5.2, 5.3	<ul style="list-style-type: none"> <li>Participates in spoken exchanges using clear language, tone and pace</li> <li>Uses questioning and listening techniques to clarify requirements</li> </ul>
Numeracy	4.2	<ul style="list-style-type: none"> <li>Uses mathematical calculations to analyse and arrange numeric information</li> </ul>
Interact with others	1.3, 1.4, 2.2, 3.1, 3.3, 4.2-4.4, 5.1, 5.2, 5.3	<ul style="list-style-type: none"> <li>Selects the appropriate form, channel and mode of communication for a specific purpose relevant to own role</li> <li>Recognises the importance of rapport in establishing and building effective working relationships</li> <li>Collaborates with others to negotiate acceptable outcomes, playing an active role in directing and facilitating effective group interaction</li> </ul>
Get the work done	1.1, 1.2, 1.4, 2.1, 2.3, 3.2, 3.3, 3.4, 4.1	<ul style="list-style-type: none"> <li>Organises, plans and sequences own workload and schedules work activities of others</li> <li>Uses a combination of formal, logical planning processes and an increasingly intuitive understanding of context to identify relevant information and evaluate appropriate strategies to achieve objectives</li> <li>Responds to problems requiring immediate attention, drawing on past experiences to devise solutions</li> <li>Makes a range of critical and non-critical decisions in relatively complex situations, taking a range of factors into account</li> </ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
BSBAUD503 Lead a quality audit	BSBAUD503B Lead a quality audit	Updated to meet Standards for Training Packages	Equivalent unit

## Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=11ef6853-ceed-4ba7-9d87-4da407e23c10>



# Assessment Requirements for BSBAUD503 Lead a quality audit

## Modification History

Release	Comments
Release 1	This version first released with BSB Business Services Training Package Version 1.0.

## Performance Evidence

Evidence of the ability to:

- identify all objectives, schedules and relevant information prior to commencement of audit
- demonstrate leadership and management of a quality auditing team
- manage the information gathering process by team members, and analysis, synthesis and reporting of the findings
- encourage team members to continuously improve their performance through feedback and self-critique
- use terminology relating to quality auditing in written or oral communications.

Note: If a specific volume or frequency is not stated, then evidence must be provided at least once.

## Knowledge Evidence

To complete the unit requirements safely and effectively, the individual must:

- describe quality auditing principles, methods and techniques
- outline the requirements of auditing regulations and standards
- identify current audit practices
- identify software applications relevant to conducting quality auditing activities.

## Assessment Conditions

Assessment must be conducted in a safe environment where evidence gathered demonstrates consistent performance of typical activities experienced in the regulation, licensing and risk – quality auditing field of work and include access to:

- workplace documentation including previous quality audit reports
- checklists
- risk management and audit plans.

Assessors must satisfy NVR/AQTF assessor requirements.

## Links

Companion Volume implementation guides are found in VETNet -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=11ef6853-ceed-4ba7-9d87-4da407e23c10>

## BSBAUD504 Report on a quality audit

### Modification History

Release	Comments
Release 1	This version first released with BSB Business Services Training Package Version 1.0.

### Application

This unit describes the skills and knowledge required to report on the outcomes of a quality audit and to take appropriate follow up action. It covers compiling audit results; preparing a report for the auditee/client; negotiating follow up action with the auditee/client; and monitoring and reviewing the auditing system and activities. The types of quality audit that may be covered by this unit include an external or internal systems audit or process or product/service audit.

It applies to individuals with a well-established theoretical knowledge base in quality auditing who are proficient in using a wide range of specialised quality auditing and managerial techniques to carry out their own work and to supervise the quality audit team. It addresses the function performed by either an auditor having sole responsibility for the audit or a lead auditor of a quality audit team.

No licensing, legislative or certification requirements apply to this unit at the time of publication.

### Unit Sector

Regulation, Licensing and Risk – Quality Auditing

### Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1 Compile audit results	1.1 Compare results of the audit evaluation against audit objectives and criteria plan

ELEMENT	PERFORMANCE CRITERIA
	1.2 Analyse audit results
2 Prepare report	2.1 Provide objective evidence relating to the need for reduction, elimination and prevention of non-conformance as the basis for the audit report 2.2 Produce audit report according to specified audit requirements 2.3 Present audit report to auditee and other stakeholders
3 Negotiate follow up process with auditee	3.1 Determine and initiate any corrective action required to deal with non-conformance, in consultation with auditee 3.2 Provide suggestions for improvements where applicable 3.3 Ensure timelines are agreed on for completion of corrective action activities 3.4 Ensure corrective action follow-up procedures are agreed with auditee
4 Monitor and review audit system and activities	4.1 Evaluate effectiveness and suitability in achieving audit objectives 4.2 Investigate possible improvements in audit methods, economy and efficiency

## Foundation Skills

*This section describes language, literacy, numeracy and employment skills incorporated in the performance criteria that are required for competent performance.*

Skill	Performance Criteria	Description
Reading	1.1, 1.2, 4.1	<ul style="list-style-type: none"> <li>Interprets and analyses information from a complex range of organisational documentation</li> </ul>
Writing	2.1, 2.2, 4.1	<ul style="list-style-type: none"> <li>Develops a variety of complex documents using relevant structure, tone and vocabulary appropriate to audience, context and purpose</li> </ul>
Oral Communication	2.3, 3.1-3.4	<ul style="list-style-type: none"> <li>Participates in spoken exchanges using clear language, tone and pace</li> <li>Uses questioning and listening techniques to clarify understanding</li> </ul>
Numeracy	1.1, 1.2, 3.3, 4.2	<ul style="list-style-type: none"> <li>Collects, represents, summarises and interprets a range of statistical data</li> </ul>

		<ul style="list-style-type: none"> <li>Performs calculations required to measure output against timeframes</li> </ul>
Navigate the world of work	2.2	<ul style="list-style-type: none"> <li>Monitors adherence to organisational policies and procedures</li> <li>Considers own role in terms of its contribution to broader goals of the work environment</li> </ul>
Interact with others	2.3, 3.1-3.4	<ul style="list-style-type: none"> <li>Selects the appropriate form, channel and mode of communication for a specific purpose relevant to own role</li> <li>Collaborates with others to negotiate joint outcomes, playing an active role in facilitating team understanding</li> </ul>
Get the work done	1.1, 1.2, 3.1, 4.1, 4.2	<ul style="list-style-type: none"> <li>Organises, plans and sequences own workload according to timelines and organisational requirements</li> <li>Makes a range of critical and non-critical decisions in relatively complex situations, taking a range of factors into account</li> <li>Analyses outcomes of decisions to identify opportunities for improvement</li> <li>Recognises a range of familiar problems, their symptoms and causes, actively looking for suitable corrective actions</li> </ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
BSBAUD504 Report on a quality audit	BSBAUD504B Report on a quality audit	Updated to meet Standards for Training Packages	Equivalent unit

## Links

Companion Volume implementation guides are found in VETNet -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=11ef6853-ceed-4ba7-9d87-4da407e23c10>

# Assessment Requirements for BSBAUD504 Report on a quality audit

## Modification History

Release	Comments
Release 1	This version first released with BSB Business Services Training Package Version 1.0.

## Performance Evidence

Evidence of the ability to:

- interpret audit results and produce a detailed audit report containing detailed analysis according to specified requirements
- negotiate follow-up actions with auditees/clients
- determine future improvements in auditing methods
- use terminology relating to quality auditing in written or oral communications.

Note: If a specific volume or frequency is not stated, then evidence must be provided at least once.

## Knowledge Evidence

To complete the unit requirements safely and effectively, the individual must:

- describe quality auditing principles, methods and techniques
- outline the requirements of auditing regulations and standards
- identify current audit practices
- identify software applications relevant to conducting quality auditing activities.

## Assessment Conditions

Assessment must be conducted in a safe environment where evidence gathered demonstrates consistent performance of typical activities experienced in the regulation, licensing and risk – quality auditing field of work and include access to:

- workplace documentation including quality audit reports, checklists, risk management plans and audit plans.

Assessors must satisfy NVR/AQTF assessor requirements.

## Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=11ef6853-ceed-4ba7-9d87-4da407e23c10>

## BSBCUS301 Deliver and monitor a service to customers

### Modification History

Release	Comments
Release 1	This version first released with BSB Business Services Training Package Version 1.0.

### Application

This unit describes the skills and knowledge required to identify customer needs, deliver and monitor customer service and identify improvements in the provision of customer service.

It applies to individuals who apply a broad range of competencies in various work contexts. In this role, individuals often exercise discretion and judgement using appropriate theoretical knowledge of customer service to provide technical advice and support to customers over short or long term interactions.

No licensing, legislative or certification requirements apply to this unit at the time of publication.

### Unit Sector

Stakeholder Relations – Customer Service

### Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1 Identify customer needs	1.1 Use appropriate interpersonal skills to accurately identify and clarify customer needs and expectations 1.2 Assess customer needs for urgency to determine priorities for service delivery according to organisational and legislative requirements 1.3 Use effective communication to inform customers about available choices for meeting their needs and assist in the selection



ELEMENT	PERFORMANCE CRITERIA
	<p>of preferred options</p> <p>1.4 Identify limitations in addressing customer needs and seek appropriate assistance from designated individuals</p>
2 Deliver a service to customers	<p>2.1 Provide prompt service to customers to meet identified needs in accordance with organisational and legislative requirements</p> <p>2.2 Establish and maintain appropriate rapport with customers to ensure completion of quality service delivery</p> <p>2.3 Sensitively and courteously handle customer complaints in accordance with organisational and legislative requirements</p> <p>2.4 Provide assistance or respond to customers with specific needs according to organisational and legislative requirements</p> <p>2.5 Identify and use available opportunities to promote and enhance services and products to customers</p>
3 Monitor and report on service delivery	<p>3.1 Regularly review customer satisfaction with service delivery using verifiable evidence according to organisational and legislative requirements</p> <p>3.2 Identify opportunities to enhance the quality of service and products, and pursue within organisational and legislative requirements</p> <p>3.3 Monitor procedural aspects of service delivery for effectiveness and suitability to customer requirements</p> <p>3.4 Regularly seek customer feedback and use to improve the provision of products and services</p> <p>3.5 Ensure reports are clear, detailed and contain recommendations focused on critical aspects of service delivery</p>

## Foundation Skills

*This section describes language, literacy, numeracy and employment skills incorporated in the performance criteria that are required for competent performance.*

Skill	Performance Criteria	Description
Reading	1.2 2.1, 2.3, 2.4, 3.1, 3.5	<ul style="list-style-type: none"> <li>Comprehends textual information to determine customer service requirements</li> <li>Proofreads texts for clarity of meaning and accuracy of grammar and punctuation</li> </ul>

Writing	2.3, 3.5	<ul style="list-style-type: none"> <li>Completes responses to customer complaints in required format</li> <li>Prepares reports using sequencing, format and words to communicate recommendations clearly and effectively</li> </ul>
Oral Communication	1.1, 1.3, 1.4, 2.2, 2.3, 2.4	<ul style="list-style-type: none"> <li>Provides information or advice using structure and language to suit the audience</li> <li>Asks questions and listens to gain information or confirm understanding</li> </ul>
Navigate the world of work	1.2, 2.1-2.4, 3.1, 3.2	<ul style="list-style-type: none"> <li>Recognises, understands and applies organisational policies and procedures relevant to role</li> </ul>
Interact with others	1.1, 1.3, 1.4, 2.2, 2.3, 2.4, 3.4	<ul style="list-style-type: none"> <li>Selects and uses appropriate communication conventions to establish connections, build rapport, seek information and develop professional working relationships</li> <li>Adjusts personal communication style in response to the opinions, values and particular needs of others</li> </ul>
Get the work done	1.2, 2.3, 2.5, 3.1-3.5	<ul style="list-style-type: none"> <li>Plans and implements systems to gather and organise information</li> <li>Monitor actions and progress against goals and implements adjustments as appropriate</li> <li>Uses problem-solving skills to analyse and respond to customer complaints or enquiries</li> <li>Identifies and follows up on opportunities to improve work practices and outcomes</li> </ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
BSBCUS301 Deliver and monitor a service to customers	BSBCUS301B Deliver and monitor a service to customers	Updated to meet Standards for Training Packages	Equivalent unit

## Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=11ef6853-ceed-4ba7-9d87-4da407e23c10>

## Assessment Requirements for BSBCUS301 Deliver and monitor a service to customers

### Modification History

Release	Comments
Release 1	This version first released with Business Services Training Package Version 1.0.

### Performance Evidence

Evidence of the ability to:

- use communication skills to establish rapport and build relationships with customers in accordance with organisational requirements
- identify customer needs using appropriate questioning and active listening skills
- provide customer service in accordance with organisational requirements
- respond to and record customer feedback and action taken according to organisational standards, policies and procedures
- produce a report which identifies and recommends ways to improve service delivery.

Note: If a specific volume or frequency is not stated, then evidence must be provided at least once.

### Knowledge Evidence

To complete the unit requirements safely and effectively, the individual must:

- summarise key provisions of relevant legislation from all levels of government that may affect aspects of business operations
- explain organisational policy and procedures for customer service, including handling customer complaints
- provide examples of verifiable evidence that could be used to review customer satisfaction
- outline the interpersonal skills needed for serving customers, including customers with specific needs.

### Assessment Conditions

Assessment must be conducted in a safe environment where evidence gathered demonstrates consistent performance of typical activities experienced in the customer service field of work and include access to:

- office equipment and technology
- workplace documents, organisational policies and procedures for customer service
- examples of customer complaints and feedback
- case studies and, where possible, real situations
- interaction with others.

Assessors must satisfy NVR/AQTF assessor requirements.

## Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=11ef6853-ceed-4ba7-9d87-4da407e23c10>

## BSBCUS401 Coordinate implementation of customer service strategies

### Modification History

Release	Comments
Release 2	This version released with BSB Business Services Training Package Version 2.0  Version created to clarify assessment conditions
Release 1	This version first released with BSB Business Services Training Package Version 1.0.

### Application

This unit describes the skills and knowledge required to advise, carry out and evaluate customer service strategies.

It applies to individuals who have well developed skills and a broad knowledge of customer service strategies for addressing customer needs and problems, and who may provide guidance or delegate work related tasks to others.

No licensing, legislative or certification requirements apply to this unit at the time of publication.

### Unit Sector

Stakeholder Relations – Customer Service

### Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1 Advise on customer service needs	1.1 Clarify and accurately assess customer needs using appropriate communication techniques

ELEMENT	PERFORMANCE CRITERIA
	<p>1.2 Diagnose problems matching service delivery to customers and develop options for improved service within organisational requirements</p> <p>1.3 Provide relevant and constructive advice to promote the improvement of customer service delivery</p> <p>1.4 Use business technology and/or online services to structure and present information on customer service needs</p>
2 Support implementation of customer service strategies	<p>2.1 Ensure customer service strategies and opportunities are promoted to designated individuals and groups</p> <p>2.2 Identify and allocate available budget resources to fulfil customer service objectives</p> <p>2.3 Promptly action procedures to resolve customer difficulties and complaints within organisational requirements</p> <p>2.4 Ensure that decisions to implement strategies are taken in consultation with designated individuals and groups</p>
3 Evaluate and report on customer service	<p>3.1 Review client satisfaction with service delivery using verifiable data in accordance with organisational requirements</p> <p>3.2 Identify and report changes necessary to maintain service standards to designated individuals and groups</p> <p>3.3 Prepare conclusions and recommendations from verifiable evidence and provide constructive advice on future directions of client service strategies</p> <p>3.4 Maintain systems, records and reporting procedures to compare changes in customer satisfaction</p>

## Foundation Skills

*This section describes language, literacy, numeracy and employment skills incorporated in the performance criteria that are required for competent performance.*

Skill	Performance Criteria	Description
Reading	1.2, 1.4, 2.3, 3.1	<ul style="list-style-type: none"> <li>Reviews textual information and comprehends details that relate to the interests or requirements of the client and organisation</li> </ul>
Writing	1.4, 3.3, 3.4	<ul style="list-style-type: none"> <li>Creates a range of formal texts using structure, grammar and clear and specialised language to</li> </ul>

		describe customer needs, maintain information and support a particular position
Oral Communication	1.1, 1.3, 2.1, 2.4, 3.2	<ul style="list-style-type: none"> <li>Uses pace, intonation, intelligible pronunciation and listening and questioning techniques to interact effectively with others</li> </ul>
Numeracy	2.2	<ul style="list-style-type: none"> <li>Recognises and interprets numerical information and performs calculations on familiar mathematical information</li> </ul>
Navigate the world of work	1.2, 2.3, 3.1, 3.2	<ul style="list-style-type: none"> <li>Recognises and applies organisational protocols and meets expectations associated with own work</li> </ul>
Interact with others	1.1, 1.3, 2.1, 2.4, 3.2, 3.3	<ul style="list-style-type: none"> <li>Selects the appropriate form, channel and mode of communication for a specific purpose relevant to own role</li> <li>Uses a range of strategies to establish a sense of connection and build rapport with customers</li> <li>Collaborates with others contributing knowledge and skills to achieve joint outcomes</li> </ul>
Get the work done	1.2, 1.4, 2.3, 3.1- 3.4	<ul style="list-style-type: none"> <li>Applies formal and logical processes when planning and implementing tasks</li> <li>Applies standard procedures when responding to familiar problems within own work context</li> <li>Uses digital technologies to access, organise, present and store information relevant to own role</li> </ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
BSBCUS401 Coordinate implementation of customer service strategies Release 2	BSBCUS401 Coordinate implementation of customer service strategies Release 1	Updated to clarify assessment conditions	Equivalent unit

## Links

Companion Volume implementation guides are found in VETNet -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=11ef6853-ceed-4ba7-9d87-4da407e23c10>





# Assessment Requirements for BSBCUS401 Coordinate implementation of customer service strategies

## Modification History

Release	Comments
Release 2	This version released with BSB Business Services Training Package Version 2.0.  Version created to clarify assessment conditions
Release 1	This version first released with Business Services Training Package Version 1.0.

## Performance Evidence

Evidence of the ability to:

- identify the needs and priorities of the organisation in delivering services to customers
- diagnose problems in delivery of customer service
- respond to and report on customer feedback and complaints
- review client satisfaction using verifiable data
- consult and communicate effectively with relevant people
- develop and implement strategies and methods to improve customer service delivery including:
  - budgeting
  - promotion to staff
  - documentation and follow up.

Note: If a specific volume or frequency is not stated, then evidence must be provided at least once.

## Knowledge Evidence

To complete the unit requirements safely and effectively, the individual must:

- outline the principles of customer service
- explain sources of information and techniques for identifying customer needs and reviewing customer satisfaction
- explain the organisational business structure, products and services related to customer service
- describe product and service standards and best practice models.

## Assessment Conditions

Assessment must be conducted in a safe environment where evidence gathered demonstrates consistent performance of typical activities experienced in the customer service field of work and include access to:

- office equipment
- business technology
- organisational policies and procedures for customer service
- examples of customer complaints and feedback
- client satisfaction data
- case studies and, where possible, real situations
- interaction with others.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volume implementation guides are found in VETNet -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=11ef6853-ceed-4ba7-9d87-4da407e23c10>

## BSBCUS501 Manage quality customer service

### Modification History

Release	Comments
Release 2	This version released with BSB Business Services Training Package Version 2.0.  Version created to clarify assessment conditions
Release 1	This version first released with BSB Business Services Training Package Version 1.0.

### Application

This unit describes the skills and knowledge required to develop strategies to manage organisational systems that ensure products and services are delivered and maintained to standards agreed by the organisation.

It applies to individuals who supervise the provision of quality customer service within an organisation's procedures framework by others. At this level, individuals must exercise considerable discretion and judgement, using a range of problem solving and decision making strategies.

No licensing, legislative or certification requirements apply to this unit at the time of publication.

### Unit Sector

Stakeholder Relations – Customer Service

### Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1 Plan to meet internal and external customer	1.1 Investigate, identify, assess, and include the needs of customers in planning processes

ELEMENT	PERFORMANCE CRITERIA
requirements	1.2 Ensure plans achieve the quality, time and cost specifications agreed with customers
2 Ensure delivery of quality products and services	2.1 Deliver products and services to customer specifications within organisation's business plan 2.2 Monitor team performance to consistently meet the organisation's quality and delivery standards 2.3 Help colleagues overcome difficulties in meeting customer service standards
3 Monitor, adjust and review customer service	3.1 Develop and use strategies to monitor progress in achieving product and/or service targets and standards 3.2 Develop and use strategies to obtain customer feedback to improve the provision of products and services 3.3 Develop, procure and use resources effectively to provide quality products and services to customers 3.4 Make decisions to overcome problems and to adapt customer services, products and service delivery in consultation with appropriate individuals and groups 3.5 Manage records, reports and recommendations within the organisation's systems and processes

## Foundation Skills

*This section describes language, literacy, numeracy and employment skills incorporated in the performance criteria that are required for competent performance.*

Skill	Performance Criteria	Description
Reading	1.1, 1.2, 2.1, 3.1, 3.2, 3.3, 3.5	<ul style="list-style-type: none"> <li>Interprets and analyses textual information from a variety of sources and applies the knowledge that has been gained to evaluate standards for organisation's products and services</li> </ul>
Writing	1.2, 3.1, 3.2, 3.3, 3.5	<ul style="list-style-type: none"> <li>Produces a range of text types to convey information, requirements or recommendations matching style of writing to purpose and audience</li> </ul>
Oral Communication	1.1, 1.2, 2.1, 2.3, 3.2	<ul style="list-style-type: none"> <li>Clearly articulates systems and standards in a team environment using language suitable to diverse audiences</li> <li>Uses listening and questioning techniques to obtain</li> </ul>

		feedback and confirm understanding
Numeracy	1.2	<ul style="list-style-type: none"> <li>Interprets and comprehends mathematical information in organisation's business and customer service plans.</li> </ul>
Navigate the world of work	2.1, 2.2, 3.1, 3.5	<ul style="list-style-type: none"> <li>Recognises and applies organisational protocols and meets expectations associated with own work</li> </ul>
Interact with others	1.1, 2.3, 3.4	<ul style="list-style-type: none"> <li>Identifies and uses appropriate conventions and protocols when communicating with colleagues and customers</li> <li>Collaborates with others, taking into account their strengths and experience, to achieve desired outcomes</li> <li>Provides support in field of expertise to team</li> </ul>
Get the work done	1.1, 1.2, 2.1, 2.2, 3.1-3.5	<ul style="list-style-type: none"> <li>Develops and implements plans using logical processes and monitors and evaluates progress against stated goals</li> <li>Accepts responsibility for addressing complex or non-routine difficulties, applying problem solving processes in determining a solution.</li> <li>Uses digital technology to access, organise and present information in a format that meets requirements</li> </ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
BSBCUS501 Manage quality customer service Release 2	BSBCUS501 Manage quality customer service Release 1	Updated to clarify assessment conditions	Equivalent unit

## Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=11ef6853-ceed-4ba7-9d87-4da407e23c10>

# Assessment Requirements for BSBCUS501 Manage quality customer service

## Modification History

Release	Comments
Release 2	This version released with BSB Business Services Training Package Version 2.0  Version created to clarify assessment conditions
Release 1	This version first released with Business Services Training Package Version 1.0.

## Performance Evidence

Evidence of the ability to:

- develop and manage organisational systems for quality customer service
- develop and review plans, policies and procedures for delivering and monitoring quality customer service
- implement policies and procedures to ensure quality customer service
- solve complex customer complaints and system problems that lead to poor customer service
- monitor and assist teams to meet customer service requirements
- develop, procure and use human and physical resources to support quality customer service delivery.

Note: If a specific volume or frequency is not stated, then evidence must be provided at least once.

## Knowledge Evidence

To complete the unit requirements safely and effectively, the individual must:

- outline the legislative and regulatory context of the organisation relevant to customer service
- describe organisational policy and procedures for customer service including handling customer complaints
- identify service standards and best practice models
- summarise public relations and product promotion
- outline techniques for dealing with customers including customers with specific needs

- explain techniques for solving complaints including the principles and techniques involved in the management and organisation of:
  - customer behaviour
  - customer needs research
  - customer relations
  - ongoing product and/or service quality
  - problem identification and resolution
  - quality customer service delivery
  - record keeping and management methods
  - strategies for monitoring, managing and introducing ways to improve customer service relationships
  - strategies to obtain customer feedback.

## Assessment Conditions

Assessment must be conducted in a safe environment where evidence gathered demonstrates consistent performance of typical activities experienced in the customer service field of work and include access to:

- legislation, regulations and codes of practice related to customer service
- business technology
- workplace documentation and resources
- complex customer complaints
- case studies and, where possible, real situations
- interaction with others.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=11ef6853-ceed-4ba7-9d87-4da407e23c10>



# BSBFRA401 Manage compliance with franchisee obligations and legislative requirements

## Modification History

Release	Comments
Release 1	This version first released with BSB Business Services Training Package Version 1.0.

## Application

This unit describes the skills and knowledge required to comply with obligations set out in the franchising agreement and with relevant legislative requirements specific to the type of franchise.

It applies to individuals who require a broad knowledge of franchisee obligations and legislative requirements and who use this knowledge to develop compliance strategies.

No licensing, legislative, regulatory or certification requirements apply to this unit at the time of publication.

## Unit Sector

Management and Leadership – Franchising

## Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1 Determine franchisee obligations and legislative requirements	1.1 Identify obligations under franchising agreement 1.2 Identify relevant legislative requirements 1.3 Access codes of practice and material that interprets and explains obligations and legislative requirements 1.4 Clarify obligations and legislative requirements with franchisor and relevant government and licensing agencies

ELEMENT	PERFORMANCE CRITERIA
2 Develop strategies for compliance with franchisee obligations and legislative requirements	2.1 Analyse available information on obligations and legislative requirements to develop strategies for compliance 2.2 Check strategies with franchisor to determine suitability to operate franchise within obligations and legislative requirements 2.3 Use strategies to develop regular, cyclical compliance checks 2.4 Complete training to facilitate compliance requirements
3 Undertake scheduled compliance checks	3.1 Communicate compliance requirements to staff 3.2 Delegate compliance checks to relevant staff and provide training and support for staff to carry out these checks 3.3 Record timing and outcomes of compliance checks according to organisational requirements 3.4 Identify instances of non-compliance from compliance checks
4 Act on identified instances of non-compliance with franchisee obligations and legislative requirements	4.1 Determine courses of action to address instances of non-compliance 4.2 Seek assistance of franchisor or other relevant parties to address non-compliance 4.3 Take action to address non-compliance 4.4 Make checks to ensure non-compliance has been addressed 4.5 Monitor compliance in a specific area to ensure continuing compliance 4.6 Analyse reasons for non-compliance to guide future compliance

## Foundation Skills

*This section describes language, literacy, numeracy and employment skills incorporated in the performance criteria that are required for competent performance.*

Skill	Performance Criteria	Description
Learning	2.4	<ul style="list-style-type: none"> <li>Undertakes skill development in line with compliance requirements</li> </ul>
Reading	1.1-1.4, 2.1-2.3, 3.3, 3.4, 4.4-4.6	<ul style="list-style-type: none"> <li>Recognises and interprets a variety of textual information to determine legislative and regulatory requirements, trends and outcomes</li> </ul>

Writing	1.4, 2.1, 3.1, 3.3, 3.4, 4.2, 4.3, 4.6	<ul style="list-style-type: none"> <li>Develops material for a specific audience using clear and detailed language to convey explicit information, requirements and outcomes</li> </ul>
Oral Communication	1.4, 2.2, 3.1, 3.2, 4.2	<ul style="list-style-type: none"> <li>Delivers factual information appropriate to audience and environment using appropriate language, tone and syntax</li> <li>Uses active listening and questioning techniques to clarify and confirm understanding</li> </ul>
Navigate the world of work	1.1-1.4, 2.1, 2.3, 2.4, 3.1, 3.3, 3.4, 4.1-4.6	<ul style="list-style-type: none"> <li>Takes personal responsibility for following explicit and implicit policies, procedures and legislative requirements</li> </ul>
Interact with others	1.4, 3.1, 3.2, 4.2	<ul style="list-style-type: none"> <li>Selects the appropriate form, channel and mode of communication for a specific purpose relevant to own role</li> <li>Plays an active role in workgroup discussions, playing some attention to the perspectives of others</li> </ul>
Get the work done	1.1, 1.2, 2.1, 2.3, 3.2, 4.1, 4.6	<ul style="list-style-type: none"> <li>Takes responsibility for planning, sequencing and delegating tasks for efficiency and effective outcomes</li> <li>Selects from a range of predetermined options in routine situations, identifying and taking some situational factors into account</li> <li>Reflects on outcomes and determines key concepts that could be adapted in future situations</li> <li>Seeks input before implementing problem solving strategies</li> </ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
BSBFRA401 Manage compliance with franchisee obligations and legislative requirements	BSBFRA401B Manage compliance with franchisee obligations and legislative requirements	Updated to meet Standards for Training Packages	Equivalent unit

## Links

Companion Volume implementation guides are found in VETNet -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=11ef6853-ceed-4ba7-9d87-4da407e23c10>

## Assessment Requirements for BSBFRA401 Manage compliance with franchisee obligations and legislative requirements

### Modification History

Release	Comments
Release 1	This version first released with BSB Business Services Training Package version 1.0.

### Performance Evidence

Evidence of the ability to:

- develop compliance strategies in accordance with franchising agreement obligations and legislative requirements
- communicate compliance requirements to staff
- provide support to staff who will carry out compliance checks
- develop and implement schedule to carry out compliance checks
- record outcomes of compliance checks according to organisational requirements
- take action to address instances of non-compliance.

Note: If a specific volume or frequency is not stated, then evidence must be provided at least once.

### Knowledge Evidence

To complete the evidence requirements safely and effectively, the individual must:

- identify work health and safety (WHS) requirements:
  - as specific to nature and type of franchise
  - as generic to all workplaces
- outline other relevant legislation, codes of practice and national standards that affect franchise operations
- explain franchise specific obligations:
  - as per franchise agreement
  - as per updates and amendments to agreement over time
- describe methods for carrying out compliance checks of franchise operations
- list penalties for non-compliance within the context for franchisee obligations and legislative requirements.

## Assessment Conditions

Assessment must be conducted in a safe environment where evidence gathered demonstrates consistent performance of typical activities experienced in the management and leadership – franchising field of work and include access to:

- office equipment and resources
- relevant legislation and regulations
- examples of real franchise agreements and related documentation.

Assessors must satisfy NVR/AQTF assessor requirements.

## Links

Companion Volume implementation guides are found in VETNet -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=11ef6853-ceed-4ba7-9d87-4da407e23c10>

# BSBHRM405 Support the recruitment, selection and induction of staff

## Modification History

Release	Comments
Release 1	This version first released with BSB Business Services Training Package Version 1.0.

## Application

This unit describes the skills and knowledge required to execute tasks associated with the recruitment cycle and apply in-depth knowledge of the work of the organisation, and how recruitment and selection practices fit with other human resources functions.

This unit applies to individuals who support recruitment, selection and induction functions under the direction of a human resource manager.

No licensing, legislative, or certification requirements apply to this unit at the time of publication.

## Unit Sector

Workforce Development – Human Resource Management

## Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1 Plan for recruitment	1.1 Obtain approval to fill position, clarify time lines and requirement for appointment  1.2 Assist in preparing job descriptions that accurately reflect the role requirements, according to organisational policies and procedures, legislation, codes, national standards and work health and safety (WHS) considerations  1.3 Consult with relevant personnel about job descriptions and

ELEMENT	PERFORMANCE CRITERIA
	<p>workforce strategy</p> <p>1.4 Assist in ensuring that job descriptions comply with legislative requirements and reflect the organisation's requirements for a diverse workforce</p> <p>1.5 Obtain approvals to advertise position</p>
2 Plan for selection	<p>2.1 Choose appropriate channels and technology to advertise vacancies and/or identify potential talent pool</p> <p>2.2 Advertise vacancies for staffing requirements according to organisational policies and procedures</p> <p>2.3 Consult with relevant personnel to convene selection panel and develop interview questions</p> <p>2.4 Assist in ensuring that interview questions comply with legislative requirements</p> <p>2.5 Assist in short-listing applicants</p> <p>2.6 Schedule interviews and advise relevant people of times, dates and venues</p>
3 Support selection process	<p>3.1 Participate in interview process and assess candidates against agreed selection criteria</p> <p>3.2 Discuss assessment with other selection panel members</p> <p>3.3 Correct biases and deviations from agreed procedures and negotiate for preferred candidate</p> <p>3.4 Contact referees for referee reports</p> <p>3.5 Prepare selection report and make recommendations to senior personnel for appointment</p> <p>3.6 Advise unsuccessful candidates of outcomes and respond to any queries</p> <p>3.7 Secure preferred candidate's agreement</p> <p>3.8 Complete necessary documentation according to organisational procedures, observing confidentiality and privacy requirements</p>
4 Induct successful candidate	<p>4.1 Provide successful candidate with employment contract and other documentation</p> <p>4.2 Advise manager and work team of new appointment</p> <p>4.3 Advise managers and staff of candidate's starting date and make necessary administrative arrangements for pay and employee record keeping</p> <p>4.4 Arrange successful candidate's induction according to</p>



ELEMENT	PERFORMANCE CRITERIA
	organisational policy

## Foundation Skills

*This section describes language, literacy, numeracy and employment skills incorporated in the performance criteria that are required for competent performance.*

Skill	Performance Criteria	Description
Reading	1.2, 1.4, 2.4, 2.5	<ul style="list-style-type: none"> <li>Synthesises ideas, concepts and specific information from workplace and regulatory texts to inform development of workplace documents</li> <li>Evaluates information to make judgements</li> </ul>
Writing	1.1, 1.2, 1.5, 2.2, 3.5, 3.6, 3.8, 4.2, 4.3	<ul style="list-style-type: none"> <li>Produces a range of text types using specific information, workplace conventions and templates</li> </ul>
Oral communication	1.1, 1.3, 1.5, 2.3, 2.5, 3.1-3.5, 3.7	<ul style="list-style-type: none"> <li>Asks questions and listens carefully to gather, interpret or evaluate information</li> <li>Uses appropriate vocabulary to present ideas or persuasive arguments</li> </ul>
Navigate the world of work	1.2, 1.4, 2.4, 3.3, 3.8, 4.1, 4.4	<ul style="list-style-type: none"> <li>Applies workplace protocols, legislation or regulations relevant to own responsibilities</li> </ul>
Interact with others	1.3, 2.3, 3.2, 3.3	<ul style="list-style-type: none"> <li>Selects and uses appropriate conventions and protocols when communicating with personnel, candidates or referees</li> <li>Participates in conversations relevant to role responding, explaining, negotiating and persuading as required</li> </ul>
Get the work done	2.1, 2.3, 2.6, 4.1, 4.3, 4.4	<ul style="list-style-type: none"> <li>Selects and uses digital technology to access, enter, store and retrieve information in accordance with security requirements</li> <li>Takes responsibility for planning and implementing tasks for efficient and effective outcomes</li> </ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
BSBHRM405 Support the recruitment, selection and induction of staff	BSBHRM405A Support the recruitment, selection and induction of staff	Updated to meet Standards for Training Packages	Equivalent unit

## Links

Companion Volume implementation guides are found in VETNet -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=11ef6853-ceed-4ba7-9d87-4da407e23c10>

## Assessment Requirements for BSBHRM405 Support the recruitment, selection and induction of staff

### Modification History

Release	Comments
Release 1	This version first released with BSB Business Services Training Package Version 1.0.

### Performance Evidence

Evidence of the ability to:

- prepare job descriptions
- use job descriptions to support sourcing, selecting and appointing suitable staff
- use different advertising channels to promote vacancies and/or establish a potential talent pool
- consult with managers to gain approvals
- develop selection criteria and interview questions in consultation with relevant personnel
- schedule interviews and advise relevant people of times, dates and venues
- participate in interviews and other selection techniques including assessing candidates against selection criteria to short list them
- obtain referees' reports
- prepare and distribute a selection report including feedback to give unsuccessful candidates
- advise unsuccessful candidates of the results
- secure preferred candidate's agreement and provide an employment contract
- advise other staff of the successful candidate and arrange induction.

Note: If a specific volume or frequency is not stated, then evidence must be provided at least once.

### Knowledge Evidence

To complete the unit requirements safely and effectively, the individual must:

- identify documentation required for recruitment, selection and induction
- explain human resources life cycle and the place of recruitment and selection
- identify legislation relevant to recruitment, selection and induction of staff
- describe channels and technology to advertise vacancies

- explain a range of interviewing techniques and other selection processes and their application.

## Assessment Conditions

Assessment must be conducted in a safe environment where evidence gathered demonstrates consistent performance of typical activities experienced in the workforce development – human resource development field of work and include access to:

- workplace policies and procedures
- business technology
- position descriptions
- legislation, regulations, Codes and Standards relevant to staff recruitment, selection and induction
- interaction with others.

Assessors must satisfy NVR/AQTF assessor requirements.

## Links

Companion Volume implementation guides are found in VETNet -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=11ef6853-ceed-4ba7-9d87-4da407e23c10>

## BSBINN301 Promote innovation in a team environment

### Modification History

Release	Comments
Release 1	This version first released with BSB Business Services Training Package Version 1.0.

### Application

This unit describes the skills and knowledge required to be an effective and proactive member of an innovative team.

It applies to individuals who play a proactive role in demonstrating, encouraging or supporting innovation in a team environment. The individual may be a team participant or a team leader. Teams may be formal or informal and may comprise a range of personnel.

No licensing, legislative, regulatory or certification requirements apply to this unit at the time of publication.

### Unit Sector

Creativity and Innovation – Innovation

### Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1 Create opportunities to maximise innovation within the team	1.1 Evaluate and reflect on what the team needs and wants to achieve 1.2 Check out information about current or potential team members' work in the context of developing a more innovative team 1.3 Bring people into the team or make suggestions for team members based on what needs to be achieved and the potential for cross fertilising ideas

ELEMENT	PERFORMANCE CRITERIA
	1.4 Acknowledge, respect and discuss the different ways that people may contribute to building or enhancing the team
2 Organise and agree effective ways of working	2.1 Jointly establish ground rules for how the team will operate 2.2 Agree and communicate responsibilities in ways that encourage and reinforce team-based innovation 2.3 Agree and share tasks and activities to ensure the best use of skills and abilities within the team 2.4 Plan and schedule activities to allow time for thinking, challenging and collaboration 2.5 Establish personal reward and stimulation as an integral part of the team's way of working
3 Support and guide colleagues	3.1 Model behaviour that supports innovation 3.2 Seek external stimuli and ideas to feed into team activities 3.3 Proactively share information, knowledge and experiences with other team members 3.4 Challenge and test ideas within the team in a positive and collaborative way 3.5 Proactively discuss and explore ideas with other team members on an ongoing basis
4 Reflect on how the team is working	4.1 Debrief and reflect on activities and on opportunities for improvement and innovation 4.2 Gather and use feedback from within and outside the team to generate discussion and debate 4.3 Discuss the challenges of being innovative in a constructive and open way 4.4 Take ideas for improvement, build them into future activities and communicate key issues to relevant colleagues 4.5 Identify, promote and celebrate successes and examples of successful innovation

## Foundation Skills

*This section describes language, literacy, numeracy and employment skills incorporated in the performance criteria that are required for competent performance.*

Skill	Performance Criteria	Description
Reading	1.2, 4.2	<ul style="list-style-type: none"> <li>Interprets and analyses textual information, from a wide range of sources, to identify information relevant to team activities</li> </ul>
Writing	2.2, 3.3, 4.4	<ul style="list-style-type: none"> <li>Uses clear language and formats appropriate for the audience to highlight and present specific information</li> </ul>
Oral Communication	1.2, 1.3, 1.4, 2.1, 2.2, 3.5, 4.1, 4.2, 4.3, 4.4, 4.5	<ul style="list-style-type: none"> <li>Actively participates in verbal exchanges of ideas and elicits the views and opinions of team members by listening and questioning</li> <li>Uses clear language to clarify rules and roles relating to team activities in formal and informal situations</li> </ul>
Numeracy	1.2, 4.2	<ul style="list-style-type: none"> <li>Interprets numeric information relevant to team activities</li> </ul>
Navigate the world of work	1.1, 3.1, 3.2, 3.5	<ul style="list-style-type: none"> <li>Understands the nature and purpose of own role and how it affects others in the work context</li> </ul>
Interact with others	1.1-1.4, 2.1, 2.2, 3.1, 3.2, 3.4, 3.5, 4.1, 4.2, 4.4, 4.5	<ul style="list-style-type: none"> <li>Uses inclusive techniques to initiate, contribute and promote discussion amongst potentially diverse team members</li> <li>Recognises the importance of establishing and building effective working relationships</li> <li>Selects the appropriate form, channel and mode of communication for a specific purpose relevant to own role</li> </ul>
Get the work done	1.3, 1.4, 2.2, 2.4, 2.5, 3.2, 3.4, 4.2, 4.4, 4.5	<ul style="list-style-type: none"> <li>Plans, sequences and prioritises tasks for efficient and effective outcomes</li> <li>Contributes to continuous improvement of current work practices by applying basic principles of analytical and lateral thinking</li> <li>Uses problem-solving processes to address less predictable problems, and when appropriate, seeking input from others</li> <li>Reflects on outcomes and further explores own and the team's role in implementing innovation</li> </ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
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<b>Code and title current version</b>	<b>Code and title previous version</b>	<b>Comments</b>	<b>Equivalence status</b>
BSBINN301 Promote innovation in a team environment	BSBINN301A Promote innovation in a team environment	Updated to meet Standards for Training Packages	Equivalent unit

## Links

Companion Volume implementation guides are found in VETNet -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=11ef6853-ceed-4ba7-9d87-4da407e23c10>



## Assessment Requirements for BSBINN301 Promote innovation in a team environment

### Modification History

Release	Comments
Release 1	This version first released with BSB Business Services Training Package Version 1.0.

### Performance Evidence

Evidence of the ability to:

- apply practices that promote innovation within a team including:
  - modelling open and respectful communications
  - contributing to the make-up and rules of the team
  - planning and scheduling of activities
  - reflecting on activities, feedback and challenges to identify improvement options
- encourage others to contribute to innovation in the team
- implement improvements and communicate about them.

Note: If a specific volume or frequency is not stated, then evidence must be provided at least once.

### Knowledge Evidence

To complete the unit requirements safely and effectively, the individual must:

- explain what innovation is, the different types of innovation and the benefits of innovation
- describe the internal and external factors that contribute to a team becoming and remaining innovative including:
  - team characteristics
  - the role of group dynamics and diversity
  - broader environmental factors
- explain how activities can encourage or hinder innovation in a team including:
  - allocation of time and activities
  - modelling behaviour
  - rewards and recognition
  - communications

- feedback.

## Assessment Conditions

Assessment must be conducted in a safe environment where evidence gathered demonstrates consistent performance of typical activities experienced in the creativity and innovation and include access to:

- workplace documents
- case studies and, where possible, real situations
- office equipment and resources
- interaction with others.

Assessors must satisfy NVR/AQTF assessor requirements.

## Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=11ef6853-ceed-4ba7-9d87-4da407e23c10>

## BSBINT303 Organise the importing and exporting of goods

### Modification History

Release	Comments
Release 1	This version first released with BSB Business Services Training Package Version 1.0.

### Application

This unit describes the skills and knowledge required to provide general assistance to senior staff organising importing and exporting of goods. Work may be for an external client or for the organisation in which the individual is employed.

It applies to individuals who work under the supervision of a more experienced colleague in various international work contexts. They may exercise discretion and judgement using appropriate knowledge of requirements for importing and exporting goods.

No licensing, legislative or certification requirements apply to this unit at the time of publication.

### Unit Sector

Business Development – International Business

### Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1 Follow organisational systems and processes for organising importation and exportation of goods	1.1 Detail goods to be imported or exported according to characteristics 1.2 Identify and access regulations and permits relating to international movement of specific goods with assistance of manager, supervisor or more senior personnel 1.3 Research and document required processes and trade routes to import or export specific goods as assigned by and under direction

ELEMENT	PERFORMANCE CRITERIA
	<p>of manager, supervisor or more senior personnel</p> <p>1.4 Seek assistance as required to research import or export requirements</p>
2 Contribute to cost calculations	<p>2.1 Discuss and record components of costs of importing or exporting specific goods with supervisor or manager</p> <p>2.2 Make a determination of components of costs</p> <p>2.3 Seek assistance as required in assigned tasks related to calculating costs for international movement of goods</p> <p>2.4 Document costs for international movement of goods in accordance with workplace procedures</p> <p>2.5 Check cost calculation for accuracy and completeness prior to forwarding to supervisor or manager</p> <p>2.6 Finalise and recheck any revisions to calculations by self and supervisor or manager</p>
3 Assist in completing required documentation	<p>3.1 Complete and collate required documentation for international movement of goods</p> <p>3.2 Seek assistance as required in completing and checking documentation</p> <p>3.3 Check required documents and forward for further checking by supervisor or manager</p> <p>3.4 Finalise documents and submit or lodge with relevant parties</p> <p>3.5 Identify and file copies of required documents in accordance with workplace procedures</p>
4 Communicate with carriers	<p>4.1 Identify customs licensed places and transportation services to be used in the international movement of goods with assistance of supervisor, manager or more senior personnel</p> <p>4.2 Ensure communication facilitates arrangements to move goods within required timelines</p> <p>4.3 Identify problems and take actions as required to facilitate resolution</p> <p>4.4 Follow through arrangements for transportation of goods including arrangements with overseas representatives of carriers to finalisation, including arrival of goods at intended destination and settlement effected to complete the contract</p> <p>4.5 Seek assistance as required in communicating with carriers</p>

## Foundation Skills

*This section describes language, literacy, numeracy and employment skills incorporated in the performance criteria that are required for competent performance.*

Skill	Performance Criteria	Description
Reading	1.2, 1.3, 2.4-2.6, 3.1, 3.3, 3.5, 4.1	<ul style="list-style-type: none"> <li>Comprehends and applies relevant information in organisational and legislative documents</li> </ul>
Writing	1.1-1.4, 2.1-2.4, 2.6, 3.1, 3.2, 3.4, 4.2, 4.5	<ul style="list-style-type: none"> <li>Uses clear simple vocabulary, everyday grammatical structures and workplace conventions to complete and update documentation</li> </ul>
Oral Communication	1.2-1.4, 2.1, 2.3, 3.2, 4.1, 4.2, 4.5	<ul style="list-style-type: none"> <li>Uses appropriate vocabulary, including technical language, in discussions directly relevant to own role</li> <li>Elicits the views and opinions of others by listening and questioning</li> </ul>
Numeracy	2.1-2.6, 4.2	<ul style="list-style-type: none"> <li>Interprets relevant mathematical data that may be embedded in tables of fees and charges</li> <li>Performs calculations required to determine costs and timeframes</li> </ul>
Navigate the world of work	1.2, 2.4, 3.5	<ul style="list-style-type: none"> <li>Applies knowledge of regulatory compliance frameworks and organisational procedures to achieve expectations</li> </ul>
Interact with others	1.2-1.4, 2.1-2.3, 2.5, 2.6, 3.2-3.4, 4.1, 4.2, 4.4, 4.5	<ul style="list-style-type: none"> <li>Selects the appropriate form and mode of communication when gathering, confirming and providing information, taking into account purpose and audience</li> <li>Recognises limitations of own knowledge and skills and collaborates with more experienced work colleagues to supplement knowledge and achieve outcomes</li> </ul>
Get the work done	1.1-1.3, 2.2, 2.3, 3.1, 4.2, 4.3, 4.4	<ul style="list-style-type: none"> <li>Plans, organises and implements tasks required to achieve required outcomes, including making arrangements with external persons</li> <li>Recognises and responds to predictable routine problems related to role in immediate work context</li> </ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status

<b>Code and title current version</b>	<b>Code and title previous version</b>	<b>Comments</b>	<b>Equivalence status</b>
BSBINT303 Organise the importing and exporting of goods	BSBINT303B Organise the importing and exporting of goods	Updated to meet Standards for Training Packages	Equivalent unit

## Links

Companion Volume implementation guides are found in VETNet -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=11ef6853-ceed-4ba7-9d87-4da407e23c10>

# Assessment Requirements for BSBINT303 Organise the importing and exporting of goods

## Modification History

Release	Comments
Release 1	This version first released with BSB Business Services Training Package Version 1.0.

## Performance Evidence

Evidence of the ability to:

- follow legislative and organisational guidelines for importing and exporting goods
- communicate effectively with managerial and carrier personnel
- accurately calculate the cost of importing or exporting specific goods
- produce accurate documentation.

Note: If a specific volume or frequency is not stated, then evidence must be provided at least once.

## Knowledge Evidence

To complete the unit requirements safely and effectively, the individual must:

- outline legislation, codes of practice and national standards relevant to business operations in an international trade context
- list international and Australian regulatory bodies and their roles and responsibilities
- identify organisational policies and procedures relating to business operations in an international trade context
- briefly outline the process used in the organisation for the importing or exporting of goods
- outline significant trade routes and modes of transport used by the organisation
- explain the penalties for incorrect customs declarations.

## Assessment Conditions

Assessment must be conducted in a safe environment where evidence gathered demonstrates consistent performance of typical activities experienced in the business development – international business field of work and include access to:

- office equipment and resources
- examples of importing and exporting documents

- case studies and, where possible, real situations.

Assessors must satisfy NVR/AQTF assessor requirements

## Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=11ef6853-ceed-4ba7-9d87-4da407e23c10>



## BSBITU201 Produce simple word processed documents

### Modification History

Release	Comments
Release 2	This version first released with BSB Business Services Training Package Version 2.0.  Version created to correct typographical error
Release 1	This version first released with BSB Business Services Training Package Version 1.0.

### Application

This unit describes the skills and knowledge required to correctly operate word processing applications in production of workplace documents.

It applies to individuals who perform a range of routine tasks in the workplace, using a limited range of practical skills and fundamental knowledge of word processing and software in a defined context, under direct supervision or with limited individual responsibility.

No licensing, legislative or certification requirements apply to this unit at the time of publication.

### Unit Sector

Information and Communications Technology – IT Use

### Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare to produce documents	1.1 Use safe work practices to ensure ergonomic, work organisation, energy and resource conservation requirements are met

ELEMENT	PERFORMANCE CRITERIA
	1.2 Identify document purpose, audience and presentation requirements, and clarify with relevant personnel as required 1.3 Identify organisational and task requirements for document layout and design
2. Produce documents	2.1 Format document using appropriate software functions to adjust page layout to meet information requirements, in accordance with organisational style and presentation requirements 2.2 Use system features to identify and manipulate screen display options and controls 2.3 Use manuals, user documentation and online help to overcome problems with document presentation and production
3. Finalise documents	3.1 Ensure final document is previewed, checked, adjusted and printed in accordance with organisational and task requirements 3.2 Ensure document is prepared within designated timelines and organisational requirements 3.3 Name and store document in accordance with organisational requirements and exit application without information loss/damage

## Foundation Skills

*This section describes language, literacy, numeracy and employment skills incorporated in the performance criteria that are required for competent performance.*

Skill	Performance Criteria	Description
Reading	1.2, 1.3, 2.1, 2.3, 3.1, 3.3	<ul style="list-style-type: none"> <li>Recognises textual information within organisational and task requirements to determine work requirements</li> </ul>
Writing	3.1, 3.3	<ul style="list-style-type: none"> <li>Records numerical and textual information in accordance with requirements of task</li> </ul>
Oral Communication	1.2	<ul style="list-style-type: none"> <li>Participates in a variety of spoken exchanges with relevant personnel in an effort to clarify document purpose, audience and presentation requirements</li> </ul>
Navigate the world of work	1.1-1.3, 2.1, 3.1-3.3	<ul style="list-style-type: none"> <li>Recognises and follows explicit and implicit protocols and meets expectations associated with own role</li> </ul>
Interact with others	1.2	<ul style="list-style-type: none"> <li>May seek guidance from more experienced work colleagues</li> </ul>

Get the work done	2.1-2.3, 3.1-3.3	<ul style="list-style-type: none"><li>Understands functions and features of specific computer software and uses these to perform work tasks</li></ul>
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## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
BSBITU201 Produce simple word processed documents Release 2	BSBITU201 Produce simple word processed documents Release 1	Updated to correct typographical error	Equivalent unit

## Links

Companion Volume implementation guides are found in VETNet -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=11ef6853-ceed-4ba7-9d87-4da407e23c10>

## Assessment Requirements for BSBITU201 Produce simple word processed documents

### Modification History

Release	Comments
Release 2	This version released with BSB Business Services Training Package Version 2.0.  Version created to correct typographical error
Release 1	This version first released with BSB Business Services Training Package Version 1.0.

### Performance Evidence

Evidence of the ability to:

- produce documents following correct ergonomic, conservation requirements and organisational policies and procedures
- adhere to organisational style manual when formatting documents
- refer to help function and user documentation to rectify document problems
- use system features
- follow designated timelines when preparing documents.

Note: If a specific volume or frequency is not stated, then evidence must be provided at least once.

### Knowledge Evidence

To complete the unit requirements safely and effectively, the individual must:

- identify basic formatting styles and their effect on formatting, readability and appearance of documents
- describe purpose, use and function of word processing software
- outline organisational requirements for ergonomics, work periods and breaks, and conservation techniques
- describe what is contained in an organisational style guide.

## Assessment Conditions

Assessment must be conducted in a safe environment where evidence gathered demonstrates consistent performance of typical activities experienced in the information and communications technology – IT use field of work and include access to:

- industry software packages
- computer user information
- relevant legislation and codes of practice
- organisational policies and procedures
- relevant workplace documentation and resources including a style guide and user manuals.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=11ef6853-ceed-4ba7-9d87-4da407e23c10>

## BSBITU202 Create and use spreadsheets

### Modification History

Release	Comments
Release 1	This version first released with BSB Business Services Training Package Version 1.0.

### Application

This unit describes the skills and knowledge required to correctly create and use spreadsheets and charts using spreadsheet software.

It applies to individuals who perform a range of routine tasks in the workplace using a limited range of practical skills and fundamental knowledge of creating spreadsheets in a defined context under direct supervision or with limited individual responsibility.

No licensing, legislative or certification requirements apply to this unit at the time of publication.

### Unit Sector

Information and Communications Technology – IT Use

### Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Select and prepare resources	1.1 Adjust workspace, furniture and equipment to suit own ergonomic, work organisation and work health and safety (WHS) requirements 1.2 Use energy and resource conservation techniques to minimise wastage in accordance with organisational and statutory requirements 1.3 Identify spreadsheet task requirements and clarify with relevant personnel as required

ELEMENT	PERFORMANCE CRITERIA
2. Create simple spreadsheets	<p>2.1 Ensure data is entered, checked and amended in accordance with organisational and task requirements, to maintain consistency of design and layout</p> <p>2.2 Format spreadsheet using software functions; to adjust page and cell layout to meet information requirements, in accordance with organisational style and presentation requirements</p> <p>2.3 Ensure formulae are used and tested to confirm output meets task requirements, in consultation with appropriate personnel as required</p> <p>2.4 Use manuals, user documentation and online help to overcome problems with spreadsheet design and production</p>
3. Produce simple charts	<p>3.1 Select chart type and design that enables valid representation of numerical data and meets organisational and task requirements</p> <p>3.2 Create chart using appropriate data range in spreadsheet</p> <p>3.3 Modify chart type and layout using formatting features</p>
4. Finalise spreadsheets	<p>4.1 Ensure spreadsheet and any accompanying charts are previewed, adjusted and printed in accordance with organisational and task requirements</p> <p>4.2 Ensure data input meets designated timelines and organisational requirements for speed and accuracy</p> <p>4.3 Name and store spreadsheet in accordance with organisational requirements and exit application without data loss/damage</p>

## Foundation Skills

*This section describes language, literacy, numeracy and employment skills incorporated in the performance criteria that are required for competent performance.*

Skill	Performance Criteria	Description
Reading	2.1, 2.4, 4.1, 4.3	<ul style="list-style-type: none"> <li>Recognises numerical and textual information within a range of resources to determine and complete work according to requirements</li> </ul>
Writing	2.1, 2.3, 3.2, 4.1, 4.3	<ul style="list-style-type: none"> <li>Enters and amends routine data into software using a format appropriate to requirements</li> </ul>
Oral	1.3, 2.3	<ul style="list-style-type: none"> <li>Listens to short and specific instructions and uses questions to clarify understanding</li> </ul>

Communication		<ul style="list-style-type: none"> <li>Uses simple mathematical language to confirm and convey requirements</li> </ul>
Numeracy	2.1, 2.3, 3.1, 3.2	<ul style="list-style-type: none"> <li>Uses basic mathematical skills to create and apply spreadsheet formulae</li> </ul>
Navigate the world of work	1.1-1.3, 2.1, 2.2, 3.1, 4.1-4.3	<ul style="list-style-type: none"> <li>Recognises, understands and adheres to legislative and organisational requirements in undertaking own work</li> </ul>
Interact with others	1.3	<ul style="list-style-type: none"> <li>Recognises purpose of various communications directly relevant to own role and clarifies as required</li> </ul>
Get the work done	1.3, 2.1-2.4, 3.1-3.3, 4.1-4.3	<ul style="list-style-type: none"> <li>Uses key software features and functions in performing specific work tasks</li> </ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
BSBITU202 Create and use spreadsheets	BSBITU202A Create and use spreadsheets	Updated to meet Standards for Training Packages	Equivalent unit

## Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=11ef6853-ceed-4ba7-9d87-4da407e23c10>



# Assessment Requirements for BSBITU202 Create and use spreadsheets

## Modification History

Release	Comments
Release 1	This version first released with BSB Business Services Training Package Version 1.0.

## Performance Evidence

Evidence of the ability to:

- produce documents following correct ergonomic, conservation, organisational and statutory requirements
- consult with appropriate personnel as required
- adhere to organisational style and presentation requirements
- refer to online help function and user documentation to rectify document problems
- create and modify simple charts
- follow designated timelines and ensure high accuracy when preparing documents
- demonstrate ability to prevent data loss and damage.

Note: If a specific volume or frequency is not stated, then evidence must be provided at least once.

## Knowledge Evidence

To complete the unit requirements safely and effectively, the individual must:

- demonstrate knowledge of how to format workplace documents
- describe organisational requirements for ergonomic standards, work periods and breaks, and conservation techniques
- outline organisational guidelines on spreadsheet manipulation and processing
- explain purpose and range of use of spreadsheet functions.

## Assessment Conditions

Assessment must be conducted in a safe environment where evidence gathered demonstrates consistent performance of typical activities experienced in the information and communications technology – IT use field of work and include access to:

- industry technology

- organisational policies and procedures
- relevant legislation
- user manuals
- relevant workplace documentation and resources
- industry software packages.

Assessors must satisfy NVR/AQTF assessor requirements.

## Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=11ef6853-ceed-4ba7-9d87-4da407e23c10>

## BSBLDR401 Communicate effectively as a workplace leader

### Modification History

Release	Comments
Release 1	This version first released with BSB Business Services Training Package Version 1.0.

### Application

This unit describes the skills and knowledge required to communicate effectively as a workplace leader, including understanding the context, choosing methods of communication to suit the audience, and following up.

This unit applies to managers, supervisors and team leaders required to communicate with other persons within the workplace.

Communication skills cover a range of methods and contexts within principally structured environments.

No licensing, legislative or certification requirements apply to this unit at the time of publication.

### Unit Sector

Management and Leadership - Leadership

### Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Identify context for communication	1.1 Identify reason and context for communication 1.2 Identify persons relevant to the communication context 1.3 Clarify specific environment and personnel factors that may impact on the success of the communication

ELEMENT	PERFORMANCE CRITERIA
	<p>1.4 Identify and clearly understand the desired outcome of the communication</p> <p>1.5 Evaluate available methods of communication against their suitability for the specific communication requirements</p> <p>1.6 Identify potential barriers to effective communication and develop solutions to minimise impact</p> <p>1.7 Incorporate relevant business policies, procedures, regulations and legislation into communication processes</p>
2. Clarify message and engage communication	<p>2.1 Undertake communication using media and format relevant to the context</p> <p>2.2 Incorporate respectful and positive approaches to communications</p> <p>2.3 Employ two-way processes to ensure receipt and acknowledgement of message</p> <p>2.4 Seek feedback on communication processes from all parties</p> <p>2.5 Provide opportunities to clarify and confirm understanding</p>
3. Take follow-up actions	<p>3.1 Maintain record of the communication process and outcomes in line with enterprise policy and procedures</p> <p>3.2 Identify follow up actions and communicate to relevant persons</p> <p>3.3 Identify and incorporate opportunities to improve leadership communication processes</p>

## Foundation Skills

*This section describes language, literacy, numeracy and employment skills incorporated in the performance criteria that are required for competent performance.*

Skill	Performance Criteria	Description
Reading	1.7, 3.1, 3.2, 3.3	<ul style="list-style-type: none"> <li>Analyses and evaluates textual information from a range of sources to inform communication processes</li> </ul>
Writing	2.1, 3.1	<ul style="list-style-type: none"> <li>Plans and prepares workplace documentation for relevant stakeholders according to organisational formats</li> </ul>
Oral Communication	2.1, 3.2	<ul style="list-style-type: none"> <li>Participates in a variety of spoken exchanges with a range of audiences using structure and language to suit</li> </ul>

		the audience
Navigate the world of work	1.7, 3.1	<ul style="list-style-type: none"> <li>Adheres to organisational policies and procedures relevant to own role</li> </ul>
Interact with others	1.3, 2.1, 2.2, 2.3, 2.4, 2.5	<ul style="list-style-type: none"> <li>Cooperates, collaborates and consults with others to clarify and confirm understanding and seek feedback</li> <li>Selects and uses appropriate communication conventions and practices to build rapport, seek or present information</li> </ul>
Get the work done	1.1, 1.2, 1.4, 1.5, 1.6, 3.1, 3.2, 3.3	<ul style="list-style-type: none"> <li>Plans and implements activities and processes to identify and establish communication and record keeping requirements</li> <li>Uses analytical processes to identify potential problems and generate solutions</li> <li>Systematically gathers and analyses all relevant information and evaluates options in order to make decisions about communication processes</li> </ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
BSBLDR401 Communicate effectively as a workplace leader	Not applicable	New unit	No equivalent unit

## Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=11ef6853-ceed-4ba7-9d87-4da407e23c10>

## Assessment Requirements for BSBLDR401 Communicate effectively as a workplace leader

### Modification History

Release	Comments
Release 1	This version first released with BSB Business Services Training Package Version 1.0.

### Performance Evidence

Evidence of the ability to:

- identify the context for communication and adjust approach and responses accordingly
- create and present clear messages choosing method and mode appropriate to the audience and context undertake effective two-way communication from the perspective of a team leader
- identify and record actions required as a result of communication and follow-up in a timely manner.

Note: If a specific volume or frequency is not stated, then evidence must be provided at least once.

### Knowledge Evidence

To complete the unit requirements safely and effectively, the individual must:

- list effective management communication characteristics
- describe a range of electronic and non-electronic communication methods, including situations where they would or would not be used
- describe the characteristics of effective listening techniques
- explain feedback process and methods
- identify team leadership communication responsibilities
- explain barriers to communication in a workplace context
- describe verbal and non-verbal communication characteristics
- explain the impact of legislation and organisational policies on workplace communication.

## Assessment Conditions

Assessment must be conducted in a safe environment where evidence gathered demonstrates consistent performance of typical activities experienced in the management and leadership field of work and include access to:

- relevant legislation, regulations, standards and codes
- relevant workplace documentation and resources
- case studies and, where possible, real situations
- interaction with others.

Assessors must satisfy NVR/AQTF assessor requirements.

## Links

Companion Volume implementation guides are found in VETNet -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=11ef6853-ceed-4ba7-9d87-4da407e23c10>

## BSBLDR402 Lead effective workplace relationships

### Modification History

Release	Comments
Release 1	This version first released with BSB Business Services Training Package Version 1.0.

### Application

This unit defines skills, knowledge and outcomes required to use leadership to promote team cohesion. It includes motivating, mentoring, coaching and developing the team and forming the bridge between the management of the organisation and team members.

This unit applies to team leaders, supervisors and new or emerging managers where leadership plays a role in developing and maintaining effective workplace relationships. It applies in any industry or community context.

At this level work will normally be carried out within routine and non-routine methods and procedures, which require planning and evaluation and leadership and guidance of others.

No licensing, legislative or certification requirements apply to this unit at the time of publication.

### Unit Sector

Management and Leadership - Leadership

### Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Collect, analyse and communicate information and ideas	1.1 Collect relevant information from appropriate sources and analyse and share with the work team to improve work performance 1.2 Communicate ideas and information in a manner which is appropriate and sensitive to the cultural and social diversity of the



ELEMENT	PERFORMANCE CRITERIA
	<p>audience and any specific needs</p> <p>1.3 Lead consultation processes to encourage employees to contribute to issues related to their work, and promptly relay feedback to the work team in regard to outcomes</p> <p>1.4 Seek and value contributions from internal and external sources in developing and refining new ideas and approaches</p> <p>1.5 Implement processes to ensure that issues raised are resolved promptly or referred to relevant personnel as required</p>
2. Develop trust and confidence as leader	<p>2.1 Treat all internal and external contacts with integrity, respect and empathy</p> <p>2.2 Use the organisation's social, ethical and business standards to develop and maintain effective relationships</p> <p>2.3 Gain and maintain the trust and confidence of colleagues, customers and suppliers through competent performance</p> <p>2.4 Adjust interpersonal styles and methods to meet organisation's social and cultural environment</p> <p>2.5 Lead and encourage other members of the work team to follow examples set according to organisation's policies and procedures</p>
3. Develop and maintain networks and relationships	<p>3.1 Use networks to identify and build relationships</p> <p>3.2 Use networks and other work relationships to provide identifiable benefits for the team and organisation</p>
4. Manage difficulties into positive outcomes	<p>4.1 Identify and analyse difficulties and take action to rectify the situation within the requirements of the organisation and relevant legislation</p> <p>4.2 Guide and support colleagues to resolve work difficulties</p> <p>4.3 Regularly review and improve workplace outcomes in consultation with relevant personnel</p> <p>4.4 Manage poor work performance within the organisation's processes</p> <p>4.5 Manage conflict constructively within the organisation's processes</p>

## Foundation Skills

*This section describes language, literacy, numeracy and employment skills incorporated in the performance criteria that are required for competent performance.*

Skill	Performance Criteria	Description
Reading	1.1	<ul style="list-style-type: none"> <li>Collects, analyses and evaluates textual information from a range of resources to inform improvement strategies</li> </ul>
Oral Communication	1.2, 1.3, 2.4, 2.5, 4.2	<ul style="list-style-type: none"> <li>Selects or adjusts communication style to maintain effectiveness of interaction and build and maintain engagement consistent with organisational requirements</li> </ul>
Navigate the world of work	2.2, 2.5, 4.1, 4.4, 4.5	<ul style="list-style-type: none"> <li>Recognises and follows legislative and organisational requirements relevant to own role</li> </ul>
Interact with others	1.1-1.4, 2.1, 2.3, 2.5, 3.1, 3.2, 4.2, 4.5	<ul style="list-style-type: none"> <li>Selects and uses appropriate conventions and protocols when communicating with diverse stakeholders</li> <li>Adapts personal communication style to build trust and positive working relationships and to show respect for the opinions, values and particular needs of others</li> <li>Plays a lead role in situations requiring effective collaboration, demonstrating conflict resolution skills and ability to engage and motivate others</li> </ul>
Get the work done	1.1, 1.5, 4.1, 4.3	<ul style="list-style-type: none"> <li>Plans and implements activities and processes to manage and review work performance</li> <li>Systematically gathers and analyses all relevant information to formulate and evaluate possible solutions to difficulties</li> </ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
BSBLDR402 Lead effective workplace relationships	BSBWOR401A Establish effective workplace relationships	Updated to meet Standards for Training Packages Title change Minor edits to clarify intent of performance criteria	Equivalent unit

## Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=11ef6853-ceed-4ba7-9d87-4da407e23c10>

## Assessment Requirements for BSBLDR402 Lead effective workplace relationships

### Modification History

Release	Comments
Release 1	This version first released with BSB Business Services Training Package Version 1.0.

### Performance Evidence

Evidence of the ability to:

- access and analyse information to achieve planned outcomes
- apply techniques for resolving problems and conflicts and dealing with poor performance within organisational and legislative requirements
- review and improve workplace outcomes in consultation with relevant personnel
- adjust interpersonal style and communications to respond to cultural and social diversity
- apply relationship management and communication skills with a range of people that:
  - demonstrate integrity, respect, empathy and cultural sensitivity and promote trust
  - forge effective relationships with internal and/or external people and help to maintain these networks
  - encourage participation and foster contribution of and respect for ideas and feedback
  - provide support to colleagues to resolve difficulties.

Note: If a specific volume or frequency is not stated, then evidence must be provided at least once.

### Knowledge Evidence

To complete the unit requirements safely and effectively, the individual must:

- give examples of how work relationships, and the cultural and social environment, can support or hinder achieving planned outcomes
- explain techniques for developing positive work relationships and building trust and confidence in a team including interpersonal styles, communications, consultation, cultural and social sensitivity, networking
- explain the impact of legislation and organisational policies on workplace relationships
- describe a range of methods and techniques for communicating information and ideas to a range of stakeholders
- outline problems solving methods

- explain methods to resolve workplace conflict
- explain methods to manage poor work performance
- explain how to monitor, analyse and introduce ways to improve work relationships.

## Assessment Conditions

Assessment must be conducted in a safe environment where evidence gathered demonstrates consistent performance of typical activities experienced in the management and leadership field of work and include access to:

- relevant legislation, regulations, standards and codes
- relevant workplace documentation and resources
- case studies and, where possible, real situations
- interaction with others.

Assessors must satisfy NVR/AQTF assessor requirements.

## Links

Companion Volume implementation guides are found in VETNet -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=11ef6853-ceed-4ba7-9d87-4da407e23c10>

## BSBLDR403 Lead team effectiveness

### Modification History

Release	Comments
Release 1	This version first released with BSB Business Services Training Package Version 1.0.

### Application

This unit defines skills, knowledge and outcomes required to plan and supervise the performance of the team and develop team cohesion.

It applies team leaders, supervisors and new emerging managers who have an important leadership role in the development of efficient and effective work teams.

Leaders at this level also provide leadership for the team and bridge the gap between the management of the organisation and the team members. As such they must 'manage up' as well as manage their team/s.

No licensing, legislative or certification requirements apply to this unit at the time of publication.

### Unit Sector

Management and Leadership - Leadership

### Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Plan to achieve team outcomes	1.1 Lead the team to identify, establish and document team purpose, roles, responsibilities, goals, plans and objectives in consultation with team members 1.2 Engage team members to incorporate innovation and

ELEMENT	PERFORMANCE CRITERIA
	<p>productivity measures in work plans</p> <p>1.3 Lead and support team members in meeting expected outcomes</p>
2. Lead team to develop cohesion	<p>2.1 Provide opportunities for input of team members into planning, decision making and operational aspects of work team</p> <p>2.2 Encourage and support team members to take responsibility for own work and to assist each other in undertaking required roles and responsibilities</p> <p>2.3 Provide feedback to team members to encourage, value and reward individual and team efforts and contributions</p> <p>2.4 Recognise and address issues, concerns and problems identified by team members or refer to relevant persons as required</p> <p>2.5 Model expected behaviours and approaches</p>
3. Participate in and facilitate work team	<p>3.1 Actively encourage team members to participate in and take responsibility for team activities and communication processes</p> <p>3.2 Give the team support to identify and resolve problems which impede its performance</p> <p>3.3 Ensure own contribution to work team serves as a role model for others and enhances the organisation's image within the work team, the organisation and with clients/customers</p>
4. Liaise with management	<p>4.1 Maintain open communication with line manager/management at all times</p> <p>4.2 Communicate information from line manager/management to the team</p> <p>4.3 Communicate unresolved issues, concerns and problems raised by the team/team members to line manager/management and ensure follow-up action is taken</p> <p>4.4 Communicate unresolved issues, concerns and problems related to the team/team members raised by line managers/management to the team and ensure follow-up to action is taken</p>

## Foundation Skills

*This section describes language, literacy, numeracy and employment skills incorporated in the performance criteria that are required for competent performance.*

Skill	Performance	Description
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	Criteria	
Writing	1.1, 4.2	<ul style="list-style-type: none"> <li>Prepares workplace plans that communicate intent and elicits feedback clearly and effectively</li> </ul>
Oral communication	1.1, 1.3, 2.2, 2.3, 3.1, 3.2, 4.2-4.4	<ul style="list-style-type: none"> <li>Engages in discussions or provides information using structure and language appropriate to the audience and situation</li> </ul>
Interact with others	1.1-1.3, 2.1-2.5, 3.1, 3.3, 4.1	<ul style="list-style-type: none"> <li>Selects and uses appropriate conventions and protocols when communicating with team members</li> <li>Adapts personal communication style to model required behaviours, build trust and positive working relationships and to show respect for the opinions and values of others</li> <li>Plays a lead role in situations requiring effective collaboration, demonstrating conflict resolution skills and ability to engage and motivate others</li> </ul>
Get the work done	1.1-1.3, 3.2	<ul style="list-style-type: none"> <li>Develops, implements and monitors plans and processes to ensure team engagement and effectiveness</li> <li>Uses formal analytical thinking techniques to identify issues and generate possible solutions, seeking input from others as required</li> </ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
BSBLDR403 Lead team effectiveness	BSBWOR402A Promote team effectiveness	Updated to meet Standards for Training Packages  Title change  Minor edits to clarify intent of performance criteria	Equivalent unit

## Links

Companion Volume implementation guides are found in VETNet -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=11ef6853-ceed-4ba7-9d87-4da407e23c10>



## Assessment Requirements for BSBLDR403 Lead team effectiveness

### Modification History

Release	Comments
Release 1	This version first released with BSB Business Services Training Package Version 1.0.

### Performance Evidence

Evidence of the ability to:

- apply knowledge of organisational goals, objectives and plans
- develop a team work plan including documentation of how it was generated and how it will be monitored
- identify and incorporate innovation and productivity measures into a team work plan
- communicate with team members and management to identify and establish the team purpose, roles, responsibilities, goals plans and objectives and resolve problems
- use techniques to consult, encourage, support and provide feedback to team members
- model team leadership behaviours and approaches
- liaise with management to develop the teamwork plan, resolve issues and ensure follow-up action is taken.

Note: If a specific volume or frequency is not stated, then evidence must be provided at least once.

### Knowledge Evidence

To complete the unit requirements safely and effectively, the individual must explain principles and techniques associated with:

- delegation and work allocation
- goal setting
- group dynamics and processes
- individual behaviour and difference
- leadership styles
- motivation
- negotiation
- problem solving
- planning

- workplace innovation
- workplace productivity.

## Assessment Conditions

Assessment must be conducted in a safe environment where evidence gathered demonstrates consistent performance of typical activities experienced in the management and leadership field of work and include access to:

- information about the organisation, including organisational structure, goals, objectives and plans
- case studies, and where possible, real situations
- workplace equipment and resources
- interaction with others.

Assessors must satisfy NVR/AQTF assessor requirements.

## Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=11ef6853-ceed-4ba7-9d87-4da407e23c10>

## BSBLED401 Develop teams and individuals

### Modification History

Release	Comments
Release 2	This version released with BSB Business Services Training Package Version 2.0.  Version created to clarify assessment requirements
Release 1	This version first released with BSB Business Services Training Package Version 1.0.

### Application

This unit describes the skills and knowledge required to determine individual and team development needs and to facilitate the development of the workgroup.

It applies to individuals with a broad knowledge of learning and development who apply their skills in addressing development needs to meet team objectives. They may have responsibility to provide guidance or to delegate aspects of tasks to others.

No licensing, legislative or certification requirements apply to this unit at the time of publication.

### Unit Sector

Workforce Development – Learning and Development

### Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Determine development needs	1.1 Systematically identify and implement learning and development needs in line with organisational requirements  1.2 Ensure that a learning plan to meet individual and group training and development needs is collaboratively developed, agreed to and

ELEMENT	PERFORMANCE CRITERIA
	<p>implemented</p> <p>1.3 Encourage individuals to self-evaluate performance and identify areas for improvement</p> <p>1.4 Collect feedback on performance of team members from relevant sources and compare with established team learning needs</p>
2. Develop individuals and teams	<p>2.1 Identify learning and development program goals and objectives, ensuring a match to the specific knowledge and skill requirements of competency standards relevant to the industry</p> <p>2.2 Ensure that learning delivery methods are appropriate to the learning goals, the learning style of participants, and availability of equipment and resources</p> <p>2.3 Provide workplace learning opportunities, and coaching and mentoring assistance to facilitate individual and team achievement of competencies</p> <p>2.4 Create development opportunities that incorporate a range of activities and support materials appropriate to the achievement of identified competencies</p> <p>2.5 Identify and approve resources and time lines required for learning activities in accordance with organisational requirements</p>
3. Monitor and evaluate workplace learning	<p>3.1 Use feedback from individuals or teams to identify and implement improvements in future learning arrangements</p> <p>3.2 Assess and record outcomes and performance of individuals/teams to determine the effectiveness of development programs and the extent of additional development support</p> <p>3.3 Negotiate modifications to learning plans to improve the efficiency and effectiveness of learning</p> <p>3.4 Document and maintain records and reports of competency according to organisational requirements</p>

## Foundation Skills

*This section describes language, literacy, numeracy and employment skills incorporated in the performance criteria that are required for competent performance.*

Skill	Performance Criteria	Description

Learning	1.1-1.4, 2.1-2.4, 3.1, 3.3	<ul style="list-style-type: none"> <li>• Uses structured approaches to set goals, monitor progress and adjust learning approaches for self and others</li> <li>• Builds on knowledge and experience to facilitate interaction and learning with others</li> </ul>
Reading	1.1, 1.2, 1.4, 2.1, 2.2, 2.4, 2.5, 3.1-3.4	<ul style="list-style-type: none"> <li>• Analyses textual information from a range of sources to identify organisational requirements</li> <li>• Analyses information from a range of sources to evaluate performance</li> </ul>
Writing	1.1, 1.2, 1.4, 2.1, 2.5, 3.1-3.4	<ul style="list-style-type: none"> <li>• Develops materials to suit the requirements of different roles and individuals in the organisation</li> <li>• Maintains records using correct technical and organisational vocabulary</li> </ul>
Oral Communication	1.2, 1.3, 1.4, 2.3, 3.1, 3.3	<ul style="list-style-type: none"> <li>• Uses vocabulary appropriate to context and to establish a supportive and learning environment</li> <li>• Uses listening and questioning techniques to confirm or show understanding of different perspectives</li> </ul>
Navigate the world of work	1.1, 2.5, 3.4	<ul style="list-style-type: none"> <li>• Recognises and responds to explicit and implicit organisational procedures and protocols Understands how own role meshes with others and contributes to broader goals</li> </ul>
Interact with others	1.2, 1.3, 1.4, 2.2, 2.3, 3.1, 3.3	<ul style="list-style-type: none"> <li>• Selects and uses appropriate conventions and protocols when communicating with co-workers in a range of work contexts</li> <li>• Recognises the importance of building rapport to establish effective working relationships</li> <li>• Collaborates with others to achieve joint outcomes, playing an active role in facilitating effective group interaction</li> <li>• Negotiates with others to achieve joint/agreeable outcomes playing an active role in facilitating consensus in potentially contentious situations</li> </ul>
Get the work done	1.1, 1.2, 1.4, 2.1, 2.2, 2.3, 2.5, 3.1, 3.2, 3.4	<ul style="list-style-type: none"> <li>• Uses logical planning processes to organise, implement and monitor learning and development needs</li> <li>• Systematically gathers and analyses all relevant information and evaluates options to make informed decisions</li> <li>• Evaluates outcomes of decisions to identify opportunities for improvement</li> </ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
BSBLED401 Develop teams and individuals Release 2	BSBLED401 Develop teams and individuals Release 1	Updated to clarify assessment requirements	Equivalent unit

## Links

Companion Volume implementation guides are found in VETNet -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=11ef6853-ceed-4ba7-9d87-4da407e23c10>

# Assessment Requirements for BSBLED401 Develop teams and individuals

## Modification History

Release	Comments
Release 2	This version released with BSB Business Services Training Package Version 2.0.  Version created to clarify assessment requirements
Release 1	This version first released with BSB Business Services Training Package Version 1.0.

## Performance Evidence

Evidence of the ability to:

- systematically identify and implement learning opportunities for others
- collect feedback on team and individual performance
- give and receive feedback from team members to encourage participation in and effectiveness of the team
- collaboratively develop learning plans to match skill needs of individuals and groups
- provide mentoring and coaching assistance to teams and individuals
- monitor and review workplace learning.

Note: If a specific volume or frequency is not stated, then evidence must be provided at least once.

## Knowledge Evidence

To complete the unit requirements safely and effectively, the individual must:

- describe facilitation techniques to encourage team development and improvement
- outline organisational policies, plans and procedures for developing teams
- identify career paths and competency standards relevant to the industry.

## Assessment Conditions

Assessment must be conducted in a safe environment where evidence gathered demonstrates consistent performance of typical activities experienced in the workforce learning and development field of work and include access to:

- office equipment and resources
- learning and development plans, policies and procedures
- case studies and, where available, real situations
- interaction with others.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volume implementation guides are found in VETNet -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=11ef6853-ceed-4ba7-9d87-4da407e23c10>



## BSBMGT401 Show leadership in the workplace

### Modification History

Release	Comments
Release 1	This version first released with BSB Business Services Training Package Version 1.0.

### Application

This unit describes the skills and knowledge required to lead teams and individuals by modelling high standards of conduct to reflect the organisation's standards and values.

It applies to individuals who are making the transition from being a team member to taking responsibility for the work and performance of others and providing the first level of leadership within the organisation. These managers have a strong influence on the work culture, values and ethics of the teams they supervise.

No licensing, legislative or certification requirements apply to this unit at the time of publication.

### Unit Sector

Management and Leadership – Management

### Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Model high standards of management performance and behaviour	1.1 Ensure management performance and behaviour meets the organisation's requirements 1.2 Ensure management performance and behaviour serves as a positive role model for others 1.3 Develop and implement performance plans in accordance with organisation's goals and objectives 1.4 Establish and use key performance indicators to meet

ELEMENT	PERFORMANCE CRITERIA
	organisation's goals and objectives
2. Enhance organisation's image	2.1 Use organisation's standards and values in conducting business 2.2 Question, through established communication channels, standards and values considered to be damaging to the organisation 2.3 Ensure personal performance contributes to developing an organisation which has integrity and credibility
3. Make informed decisions	3.1 Gather and organise information relevant to the issue/s under consideration 3.2 Facilitate individual's and team's active participation in decision-making processes 3.3 Examine options and assess associated risks to determine preferred course/s of action 3.4 Ensure decisions are timely and communicate them clearly to individuals and teams 3.5 Prepare plans to implement decisions and ensure they are agreed by relevant individuals and teams 3.6 Use feedback processes effectively to monitor the implementation and impact of decisions

## Foundation Skills

*This section describes language, literacy, numeracy and employment skills incorporated in the performance criteria that are required for competent performance.*

Skill	Performance Criteria	Description
Reading	1.1, 1.3, 1.4, 2.1, 3.1, 3.3, 3.5, 3.6	<ul style="list-style-type: none"> <li>Gathers, interprets and analyses text relating to organisational goals, standards and values to aid planning and decision making</li> </ul>
Writing	1.3, 1.4, 3.1, 3.3, 3.5, 3.6	<ul style="list-style-type: none"> <li>Records and reports key information related to the organisational goals, standards and objectives</li> <li>Researches, plans and prepares documentation for relevant stakeholders</li> </ul>
Oral Communication	1.2, 1.3, 2.2, 2.3, 3.2, 3.4, 3.5, 3.6	<ul style="list-style-type: none"> <li>Uses appropriate structure and language when developing performance plans, or when seeking and providing information about organisational goals and</li> </ul>

		objectives
Numeracy	1.4	<ul style="list-style-type: none"> <li>Identifies and comprehends mathematical information in familiar texts to establish key performance indicators</li> </ul>
Navigate the world of work	1.1, 1.2, 1.3, 1.4, 2.1, 2.3	<ul style="list-style-type: none"> <li>Understands how own role meshes with others and contributes to broader work goals</li> <li>Monitors adherence to organisational policies and procedures and considers own role in terms of its contribution to broader goals of the work environment</li> </ul>
Interact with others	1.2, 1.3, 2.2, 2.3, 3.2, 3.4, 3.5, 3.6	<ul style="list-style-type: none"> <li>Collaborates with others to achieve joint outcomes, playing an active role in facilitating effective outcomes</li> <li>Recognises the importance of taking audience, purpose and contextual factors into account when making decisions about what to communicate with whom, why and how</li> </ul>
Get the work done	1.1, 1.3, 1.4, 3.1, 3.2, 3.3, 3.4, 3.5, 3.6	<ul style="list-style-type: none"> <li>Develops plans to manage relatively complex, non-routine tasks with an awareness of how they contribute to longer term operational and strategic goals</li> <li>Uses systematic, analytical processes in complex, non-routine situations, setting goals, gathering relevant information and identifying and evaluating options against agreed criteria</li> <li>Evaluates effectiveness of decisions in terms of how well they meet stated goals</li> </ul>

## Range of Conditions

*This section specifies different work environments and conditions that may affect performance. Essential operating conditions that may be present (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) are included.*

Organisation's standards and values must be identified by considering:	<ul style="list-style-type: none"> <li>explicitly stated values</li> <li>values that are implied by the way the organisation conducts its business.</li> </ul>
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## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status

<b>Code and title current version</b>	<b>Code and title previous version</b>	<b>Comments</b>	<b>Equivalence status</b>
BSBMGT401 Show leadership in the workplace	BSBMGT401A Show leadership in the workplace	Updated to meet Standards for Training Packages	Equivalent unit

## Links

Companion Volume implementation guides are found in VETNet -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=11ef6853-ceed-4ba7-9d87-4da407e23c10>

# Assessment Requirements for BSBMGT401 Show leadership in the workplace

## Modification History

Release	Comments
Release 1	This version first released with BSB Business Services Training Package Version 1.0.

## Performance Evidence

Evidence of the ability to:

- identify the organisation's standards and values, whether stated or implied by the way the organisation conducts its business
- evaluate own behaviour and performance against these and adjust to achieve required standards
- develop and implement performance plans and key performance indicators (KPIs) to meet organisation's goals and objectives
- use established communication channels to raise questions about standards and values that may be damaging to the organisation
- ensure own behaviour and performance contributes to the integrity and credibility of the organisation
- facilitate processes to make decisions that are based on:
  - relevant information
  - examination of options and associated risks
  - input from relevant people
- communicate about making and implementing decisions including:
  - facilitating agreement on the preferred course of action and implementation plans
  - monitoring and feedback on the implementation and impact of decisions.

Note: If a specific volume or frequency is not stated, then evidence must be provided at least once.

## Knowledge Evidence

To complete the unit requirements safely and effectively, the individual must:

- explain how to identify an organisation's standards and values when they are:
  - stated

- implied
- articulate organisational values and expectations of behaviour
- explain basic theory of group behaviour
- outline the organisation's process for raising questions about standards and values
- give examples of behaviours and performance that would typically be considered damaging to an organisation
- explain concepts including:
  - organisational values
  - role modelling
  - integrity and credibility
  - leadership.

## Assessment Conditions

Assessment must be conducted in a safe environment where evidence gathered demonstrates consistent performance of typical activities experienced in the management and leadership field of work and include access to:

- relevant workplace documentation and resources
- case studies and, where possible, real situations
- interaction with others.

Assessors must satisfy NVR/AQTF assessor requirements.

## Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=11ef6853-ceed-4ba7-9d87-4da407e23c10>

## BSBMGT402 Implement operational plan

### Modification History

Release	Comments
Release 1	This version first released with BSB Business Services Training Package Version 1.0.

### Application

This unit describes the skills and knowledge required to implement the operational plan by monitoring and adjusting operational performance, planning and acquiring resources and providing reports on performance as required.

It applies to individuals who plan activities to achieve the measurable, stated objectives of the team and the organisation. At this level work will normally be carried out within routine and non-routine methods and procedures which require planning, evaluation, leadership and guidance of others.

No licensing, legislative or certification requirements apply to this unit at the time of publication.

### Unit Sector

Management and Leadership – Management

### Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Implement operational plan	1.1 Collate, analyse and organise details of resource requirements in consultation with relevant personnel, colleagues and specialist resource managers 1.2 Implement operational plans to contribute to the achievement of organisation's performance/business plan 1.3 Identify and use key performance indicators (KPIs) to monitor

ELEMENT	PERFORMANCE CRITERIA
	<p>operational performance</p> <p>1.4 Manage contingencies by adjusting the implementation of the operational plan in consultation with others</p> <p>1.5 Provide assistance in the development and presentation of proposals for resource requirements in line with operational planning processes</p>
2. Implement resource acquisition	<p>2.1 Recruit and induct employees within organisation's policies, practices and procedures</p> <p>2.2 Implement plans for acquisition of physical resources and services within organisation's policies, practices and procedures and in consultation with relevant personnel</p>
3. Monitor operational performance	<p>3.1 Monitor performance systems and processes to assess progress in achieving profit/productivity plans and targets</p> <p>3.2 Analyse and use budget and actual financial information to monitor profit/productivity performance</p> <p>3.3 Identify unsatisfactory performance and take prompt action to rectify the situation according to organisational policies</p> <p>3.4 Provide mentoring, coaching and supervision to support individuals and teams to use resources effectively, economically and safely</p> <p>3.5 Present recommendations for variation to operational plans to the designated persons/groups and gain approval</p> <p>3.6 Implement systems, procedures and records associated with performance in accordance with organisation's requirements</p>

## Foundation Skills

*This section describes language, literacy, numeracy and employment skills incorporated in the performance criteria that are required for competent performance.*

Skill	Performance Criteria	Description
Learning	3.4	<ul style="list-style-type: none"> <li>Actively reinforces learning by applying new knowledge and skills in mentoring, coaching and supervising others</li> </ul>
Reading	1.1-1.5, 2.1, 2.2, 3.1, 3.2, 3.6	<ul style="list-style-type: none"> <li>Identifies, interprets, analyses and reviews textual information related to the operational plan and</li> </ul>



		monitoring of operational performance
Writing	1.1-1.5, 2.1, 2.2, 3.2-3.6	<ul style="list-style-type: none"> <li>Communicates relationships between ideas and information, matching style of writing to purpose and audience</li> <li>Researches, plans and prepares workplace documentation for relevant stakeholders using organisational formats</li> </ul>
Oral Communication	1.1, 1.4, 1.5, 2.1, 2.2, 3.3, 3.4, 3.5	<ul style="list-style-type: none"> <li>Participates in a variety of spoken exchanges with a range of audiences varying structure and language to suit the audience</li> </ul>
Numeracy	1.1, 1.2, 1.3, 1.4, 1.5, 2.2, 3.1, 3.2, 3.3	<ul style="list-style-type: none"> <li>Selects and uses familiar mathematical techniques to organise timely supply of adequate resources for the operational plan and to use budgetary information to monitor performance</li> </ul>
Navigate the world of work	1.5, 2.1, 2.2, 3.3, 3.4, 3.6	<ul style="list-style-type: none"> <li>Monitors adherence to organisational policies and procedures and considers own role in terms of its contribution to broader goals of the work environment</li> </ul>
Interact with others	1.1, 1.4, 1.5, 2.1, 2.2, 3.3, 3.4, 3.5	<ul style="list-style-type: none"> <li>Selects and uses appropriate conventions and protocols when communicating with diverse individuals to build rapport, seek or present information</li> <li>Collaborates with others to achieve joint outcomes, playing an active role in facilitating effective group communication, influencing direction and taking a leadership role on occasion</li> </ul>
Get the work done	1.1, 1.2, 1.3, 1.4, 1.5, 2.2, 3.1, 3.2, 3.3, 3.6	<ul style="list-style-type: none"> <li>Takes responsibility for planning, organising, implementing and monitoring tasks required to achieve required outcomes</li> <li>Uses systematic, analytical processes in complex, non-routine situations, setting goals, gathering relevant information and identifying and evaluating options against agreed criteria</li> <li>Evaluates effectiveness of decisions in terms of how well they met stated goals</li> <li>Recognises and addresses an increasing range of familiar problems by implementing contingency plans</li> </ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
BSBMGT402 Implement	BSBMGT402A Implement	Updated to meet Standards for	Equivalent unit

Code and title current version	Code and title previous version	Comments	Equivalence status
operational plan	operational plan	Training Packages.  Edits to clarify intent of Performance Criteria.	

## Links

Companion Volume implementation guides are found in VETNet -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=11ef6853-ceed-4ba7-9d87-4da407e23c10>

# Assessment Requirements for BSBMGT402 Implement operational plan

## Modification History

Release	Comments
Release 1	This version first released with BSB Business Services Training Package Version 1.0.

## Performance Evidence

Evidence of the ability to:

- interact with a range of people/groups to identify resource requirements, performance objectives, systems, procedures and records relating to the operational plan
- vary the operational plan and gain approval to deal with contingencies
- monitor operational performance against the performance objectives and budgets and take action to rectify unsatisfactory performance
- plan and acquire physical and human resources using organisation's systems and procedures
- manage and support personnel to achieve performance objectives. including inducting new employees and providing mentoring and coaching
- present information and recommendations to support implementation and variation of the operational plan
- document and provide reports on performance as required by the organisation.

Note: If a specific volume or frequency is not stated, then evidence must be provided at least once.

## Knowledge Evidence

To complete the unit requirements safely and effectively, the individual must:

- describe performance monitoring systems and processes
- describe methods for problem solving
- explain how organisational policies and procedures relate to the operational plan.

## Assessment Conditions

Assessment must be conducted in a safe environment where evidence gathered demonstrates consistent performance of typical activities experienced in the management and leadership field of work and include access to:

- organisational operational plans, policies and procedures
- workplace documentation and resources including budgets, physical and human resource procurement documentation, employee induction and performance monitoring procedures
- case studies and, where possible, real situations.

Assessors must satisfy NVR/AQTF assessor requirements.

## Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=11ef6853-ceed-4ba7-9d87-4da407e23c10>

## BSBMGT403 Implement continuous improvement

### Modification History

Release	Comments
Release 1	This version first released with BSB Business Services Training Package Version 1.0.

### Application

This unit describes the skills and knowledge required to implement the organisation's continuous improvement systems and processes. It covers using systems and strategies to actively encourage the team to participate in the process, monitoring and reviewing performance, and identifying opportunities for further improvements.

It applies to managers who have an active role in implementing the continuous improvement process to achieve the organisation's objectives. Their position is closely associated with the creation and delivery of products and services which means that they have an important role in influencing the ongoing development of the organisation.

At this level, work will normally be carried out within routine and non-routine methods and procedures, which require planning, evaluation, leadership and guidance of others.

No licensing, legislative or certification requirements apply to this unit at the time of publication.

### Unit Sector

Management and Leadership – Management

### Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Implement continuous improvement systems and	1.1 Implement systems to ensure that individuals and teams are actively encouraged and supported to participate in decision

ELEMENT	PERFORMANCE CRITERIA
processes	<p>making processes, assume responsibility and exercise initiative</p> <p>1.2 Communicate the organisation's continuous improvement processes to individuals and teams, and obtain feedback</p> <p>1.3 Ensure effective mentoring and coaching allows individuals and teams to implement the organisation's continuous improvement processes</p>
2. Monitor and review performance	<p>2.1 Use the organisation's systems and technology to monitor and review progress and to identify ways in which planning and operations could be improved</p> <p>2.2 Improve customer service through continuous improvement techniques and processes</p> <p>2.3 Formulate and communicate recommendations for adjustments to those who have a role in their development and implementation</p>
3. Provide opportunities for further improvement	<p>3.1 Implement processes to ensure that team members are informed of savings and productivity/service improvements in achieving the business plan</p> <p>3.2 Document work performance to aid the identification of further opportunities for improvement</p> <p>3.3 Manage records, reports and recommendations for improvement within the organisation's systems and processes</p>

## Foundation Skills

*This section describes language, literacy, numeracy and employment skills incorporated in the performance criteria that are required for competent performance.*

Skill	Performance Criteria	Description
Reading	1.1, 1.2, 2.1, 3.2, 3.3	<ul style="list-style-type: none"> <li>Evaluates and integrates facts and ideas to construct meaning from a range of text types in an effort to implement continuous improvement systems and processes</li> </ul>
Writing	1.1, 1.2, 2.1, 2.2, 2.3, 3.1, 3.2, 3.3	<ul style="list-style-type: none"> <li>Selects vocabulary, grammatical structures and conventions appropriate to text</li> <li>Researches, plans and prepares continuous improvement documentation for relevant stakeholders</li> </ul>
Oral	1.2, 1.3, 2.3	<ul style="list-style-type: none"> <li>Participates in a variety of spoken exchanges with a range of audiences using structure and language to suit</li> </ul>

Communication		the audience
Navigate the world of work	2.1	<ul style="list-style-type: none"> <li>Monitors adherence to organisational policies and procedures and considers own role in terms of its contribution to broader goals of the work environment</li> </ul>
Interact the work of others	1.2, 1.3, 2.3, 3.1	<ul style="list-style-type: none"> <li>Selects and uses appropriate conventions and protocols when communicating with diverse individuals to seek or share information</li> <li>Collaborates with others to achieve joint outcomes, playing an active role in facilitating effective group communication, influencing direction and taking a leadership role on occasion</li> </ul>
Get the work done	1.1, 1.3, 2.1, 2.2, 3.1, 3.2, 3.3	<ul style="list-style-type: none"> <li>Takes responsibility for planning and organising own workload to achieve required outcomes</li> <li>Uses systematic, analytical processes in complex, non-routine situations, setting goals, gathering relevant information and identifying and evaluating options against agreed criteria</li> <li>Evaluates effectiveness of decisions in terms of how well they meet stated goals</li> <li>Uses digital applications to access and filter data, extract, organise, integrate and share relevant information</li> <li>Recognises the potential of new approaches to enhance work practices and outcomes</li> </ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
BSBMGT403 Implement continuous improvement	BSBMGT403A Implement continuous improvement	Updated to meet Standards for Training Packages	Equivalent unit

## Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=11ef6853-ceed-4ba7-9d87-4da407e23c10>

# Assessment Requirements for BSBMGT403 Implement continuous improvement

## Modification History

Release	Comments
Release 1	This version first released with BSB Business Services Training Package Version 1.0.

## Performance Evidence

Evidence of the ability to:

- implement continuous improvement systems and provide mentoring and coaching support to enable individuals and teams to participate in decisions, take responsibility, show initiative and implement improvement processes
- implement processes to inform team members about savings and productivity/service improvements achievements
- communicate effectively to support the continuous improvement system and implementation of improvements
- apply continuous improvement to customer services including internal and external customers
- implement, monitor and adjust improvement plans, processes and procedures to improve performance
- document performance to identify further opportunities for improvement
- manage records and reports within the organisation's systems and procedures.

Note: If a specific volume or frequency is not stated, then evidence must be provided at least once.

## Knowledge Evidence

To complete the unit requirements safely and effectively, the individual must:

- give examples of continuous improvement processes
- list typical areas of need for coaching and mentoring to support continuous improvement
- explain how change management techniques can support continuous improvement and initiative
- identify the organisation's systems and data that can be used for benchmarking and monitoring performance for continuous improvement.



## Assessment Conditions

Assessment must be conducted in a safe environment where evidence gathered demonstrates consistent performance of typical activities experienced in the management and leadership field of work and include access to:

- relevant workplace documentation and resources
- case studies and, where possible, real situations
- interaction with others.

Assessors must satisfy NVR/AQTF assessor requirements.

## Links

Companion Volume implementation guides are found in VETNet -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=11ef6853-ceed-4ba7-9d87-4da407e23c10>

## BSBMKG501 Identify and evaluate marketing opportunities

### Modification History

Release	Comments
Release 1	This version first released with BSB Business Services Training Package Version 1.0.

### Application

This unit describes the skills and knowledge required to identify, evaluate and take advantage of marketing opportunities by analysing market data, distinguishing characteristics of possible markets and assessing viability of changes to operations.

It applies to individuals working in a supervisory or management marketing or advertising role within a marketing or advertising team or media organisation.

No licensing, legislative or certification requirements apply to this unit at the time of publication.

### Unit Sector

Business Development – Marketing

### Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Identify marketing opportunities	1.1 Analyse information on market and business needs to identify marketing opportunities 1.2 Research potential new markets and assess opportunities to enter, shape or influence each market, and the likely contribution to the business 1.3 Explore entrepreneurial, innovative approaches and creative ideas for their potential business application, and develop into potential marketing opportunities

ELEMENT	PERFORMANCE CRITERIA
2. Investigate marketing opportunities	<p>2.1 Identify and analyse opportunities in terms of their likely fit with organisational goals and capabilities</p> <p>2.2 Evaluate each opportunity to determine its impact on current business and customer base</p> <p>2.3 Use an assessment of external factors, costs, benefits, risks and opportunities to determine the financial viability of each marketing opportunity</p> <p>2.4 Determine probable return on investment and potential competitors</p> <p>2.5 Describe and rank marketing opportunities on their viability, and likely contribution to the business</p>
3. Evaluate required changes to current operations	<p>3.1 Identify and document changes needed to current operations to take advantage of viable marketing opportunities</p> <p>3.2 Ensure organisational changes to service an increased or different customer base including provision for continued quality of service to existing customers</p> <p>3.3 Estimate resource requirements for changed operations</p> <p>3.4 Determine and communicate viability of making changes to current operations to key stakeholders</p> <p>3.5 Document newly identified marketing opportunities and required changes</p>

## Foundation Skills

*This section describes language, literacy, numeracy and employment skills incorporated in the performance criteria that are required for competent performance.*

Skill	Performance Criteria	Description
Reading	1.1-1.3, 2.1-2.4, 3.1	<ul style="list-style-type: none"> <li>Evaluates and comprehends textual information from a range of sources and draws own conclusions</li> </ul>
Writing	1.1-1.3, 2.5, 3.1, 3.4, 3.5	<ul style="list-style-type: none"> <li>Integrates information from a number of sources to develop material that supports purposes of documentation using suitable grammatical structure and clear, logical language</li> </ul>
Oral Communication	2.5, 3.4	<ul style="list-style-type: none"> <li>Presents opinions, ideas and organisational requirements clearly and creatively using language and presentation techniques appropriate to audience and</li> </ul>

		environment <ul style="list-style-type: none"> <li>Elicits views and opinions of others by listening and questioning</li> </ul>
Numeracy	2.3, 2.4, 3.3	<ul style="list-style-type: none"> <li>Evaluates financial and marketing data using whole numbers, decimals and percentages to make accurate calculations</li> </ul>
Navigate the world of work	2.1	<ul style="list-style-type: none"> <li>Recognises and follows explicit and implicit organisational protocols and meets expectations associated with own role</li> </ul>
Interact with others	2.5, 3.4	<ul style="list-style-type: none"> <li>Selects appropriate form, channel and mode of communication for a specific purpose relevant to own role</li> </ul>
Get the work done	1.1-1.3, 2.1-2.4, 3.1, 3.2, 3.3, 3.4	<ul style="list-style-type: none"> <li>Develops plans to manage relatively complex tasks with an awareness of how they may contribute to longer-term operational and strategic goals</li> <li>Makes decisions by systematically analysing information, identifying and evaluating options against set criteria, and choosing most appropriate option</li> <li>Evaluates outcomes of decisions to identify opportunities for improvement</li> <li>Develops new and innovative ideas through exploration, analysis and critical thinking</li> </ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
BSBMKG501 Identify and evaluate marketing opportunities	BSBMKG501B Identify and evaluate marketing opportunities	Updated to meet Standards for Training Packages	Equivalent unit

## Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=11ef6853-ceed-4ba7-9d87-4da407e23c10>

## Assessment Requirements for BSBMKG501 Identify and evaluate marketing opportunities

### Modification History

Release	Comments
Release 1	This version first released with BSB Business Services Training Package Version 1.0.

### Performance Evidence

Evidence of the ability to:

- identify and evaluate marketing opportunities to determine whether they can meet organisational objectives
- document how current business operations need to be modified, and list resources required, to take advantage of newly identified and evaluated opportunities.

Note: If a specific volume or frequency is not stated, then evidence must be provided at least once.

### Knowledge Evidence

To complete the unit requirements safely and effectively, the individual must:

- outline key provisions of relevant legislation, codes of practice and national standards affecting marketing operations
- describe organisational marketing plan, structure, products and services
- explain principles of marketing and marketing mix
- describe statistical methods and techniques to evaluate marketing opportunities, including forecasting techniques.

### Assessment Conditions

Assessment must be conducted in a safe environment where evidence gathered demonstrates consistent performance of typical activities experienced in the business development – marketing field of work and include access to:

- relevant legislation, regulations, standards and codes
- relevant workplace documentation and resources
- organisational strategic and marketing plans
- case studies and, where possible, real situations.

Assessors must satisfy NVR/AQTF assessor requirements.

## Links

Companion Volume implementation guides are found in VETNet -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=11ef6853-ceed-4ba7-9d87-4da407e23c10>

## BSBMKG507 Interpret market trends and developments

### Modification History

Release	Comments
Release 1	This version first released with BSB Business Services Training Package Version 1.0.

### Application

This unit describes the skills and knowledge required to conduct an analysis of market data in order to determine organisational and competitor business performance and to prepare market and business forecasts. The information assists in developing an organisation's marketing plan and to determine the current or potential future success of marketing strategies.

This unit applies to marketing professionals who use statistical techniques to analyse organisational and competitor marketing performance and to interpret new and emerging trends when forecasting future business needs.

No licensing, legislative or certification requirements apply to this unit at the time of publication.

### Unit Sector

Business Development – Marketing

### Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Interpret trends and market developments	1.1 Use statistical analysis of market data to interpret market trends and developments 1.2 Analyse market trends and developments for their potential impact on the business 1.3 Use measures of central tendency or dispersion and correlations between sets of data for quantitative interpretation of comparative

ELEMENT	PERFORMANCE CRITERIA
	market data 1.4 Perform qualitative analysis of comparative market information as a basis for reviewing business performance 1.5 Analyse the market performance of existing and potential competitors and their products or services to identify potential opportunities or threats
2. Analyse qualitative results	2.1 Analyse performance data from all areas of the business to determine success of marketing activities 2.2 Identify over-performing and under-performing products and services to be considered for redevelopment or withdrawal 2.3 Forecast existing and emerging market needs based on information available using forecasting techniques
3. Report on market data	3.1 Prepare, plot and interpret data for visual presentation 3.2 Assess visual presentation for potential problems, and take any necessary corrective action 3.3 Report on analysis of market data to meet organisational requirements in terms of content, format, level of detail and scheduling

## Foundation Skills

*This section describes language, literacy, numeracy and employment skills incorporated in the performance criteria that are required for competent performance.*

Skill	Performance Criteria	Description
Reading	1.2, 1.5, 2.1, 2.3	<ul style="list-style-type: none"> <li>Researches, evaluates, analyses and interprets market information from a range of sources, and interprets requirements</li> </ul>
Writing	3.1, 3.2, 3.3	<ul style="list-style-type: none"> <li>Prepares reports containing complex ideas and concepts and writes in a range of styles to suit different audiences</li> </ul>
Numeracy	1.1-1.5, 2.1, 2.3	<ul style="list-style-type: none"> <li>Collects, organises and analyses data to draw conclusions or make forecasts about trends and probability</li> <li>Uses specialised statistical analysis techniques</li> </ul>
Oral Communication	3.1, 3.3	<ul style="list-style-type: none"> <li>Presents information to a range of audiences using appropriate vocabulary and non-verbal features</li> </ul>



Interact with others	3.1, 3.3	<ul style="list-style-type: none"><li>• Demonstrates sophisticated control over oral, visual and/or written formats, drawing on a range of communication practices to present findings</li></ul>
Get the work done	1.1, 1.2, 1.4, 1.5, 2.1, 2.2, 2.3, 3.1, 3.2, 3.3	<ul style="list-style-type: none"><li>• Develops plans and uses effective organisational and time management skills to complete tasks with an awareness of how they may contribute to longer term operational and strategic goals</li><li>• Applies systematic and analytical decision making processes in complex and non-routine situations</li><li>• Uses digital technologies and systems to enter and analyse data and to present information</li></ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
BSBMKG507 Interpret market trends and developments	BSBMKG507A Interpret market trends and developments	Updated to meet Standards for Training Packages	Equivalent unit

## Links

Companion Volume implementation guides are found in VETNet -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=11ef6853-ceed-4ba7-9d87-4da407e23c10>

# Assessment Requirements for BSBMKG507 Interpret market trends and developments

## Modification History

Release	Comments
Release 1	This version first released with BSB Business Services Training Package Version 1.0.

## Performance Evidence

Evidence of the ability to:

- apply statistical and qualitative analysis techniques to identify:
  - current business performance
  - competitor performance
  - potential threats and opportunities
- apply qualitative and forecasting techniques to identify:
  - success of marketing activities
  - over and under-performing products and services
  - existing and emerging market needs
- document the analysis of market data including visual presentation of findings.

Note: If a specific volume or frequency is not stated, then evidence must be provided at least once.

## Knowledge Evidence

To complete the unit requirements safely and effectively, the individual must:

- outline internal and external sources of information relevant to forecasting market trends including:
  - business and strategic objectives
  - marketing and other business performance
  - comparative market information
  - changes in technology
  - demographic changes
  - social and cultural factors
  - economic trends

- government activities and legislative changes
- industry trends
- supplier data
- outline the legislative and regulatory context as it applies to marketing
- identify software applications that are commonly used in quantitative and qualitative analysis and outline their key features
- outline statistical concepts, methods, techniques and reporting formats commonly used in marketing including:
  - conversion rate of leads to sales
  - measures of central tendency
  - measures of dispersion
  - nature and degree of relationship between variables
  - net response rate
  - normal distribution probability curve
  - sampling
  - speed of response curve
  - recency or frequency grids
  - lifetime value of customers
  - net present value of customers.

## Assessment Conditions

Assessment must be conducted in a safe environment where evidence gathered demonstrates consistent performance of typical activities experienced in the business development – marketing field of work and include access to:

- relevant legislation, regulations, standards and codes
- relevant workplace documentation and resources
- case studies and, where possible, real situations.

Assessors must satisfy NVR/AQTF assessor requirements.

## Links

Companion Volume implementation guides are found in VETNet -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=11ef6853-ceed-4ba7-9d87-4da407e23c10>

## BSBMKG514 Implement and monitor marketing activities

### Modification History

Release	Comments
Release 1	This version first released with BSB Business Services Training Package Version 1.0.

### Application

This unit describes the skills and knowledge required to apply and observe marketing plan objectives and action necessary improvements.

It applies to individuals who possess a sound theoretical knowledge base in advertising management, and demonstrate a range of managerial skills. In this role, they usually lead and coordinate a marketing team, implement a marketing plan, monitor performance of marketing strategies and evaluate their effectiveness.

They also involve team members in identifying improvements for marketing strategies and formulating recommendations for future marketing activities.

No licensing, legislative or certification requirements apply to this unit at the time of publication.

### Unit Sector

Business Development – Marketing

### Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Implement marketing strategies and tactics	1.1 Brief stakeholders who participated in the marketing planning process on their implementation roles and responsibilities 1.2 Identify and brief marketing and non-marketing personnel critical to success of the marketing plan, on objectives,

ELEMENT	PERFORMANCE CRITERIA
	<p>performance measures, and their roles and responsibilities</p> <p>1.3 Prioritise marketing strategies and identify resources for their implementation, in accordance with organisational requirements</p> <p>1.4 Implement communication and team building strategies to ensure personnel responsible for each element of the marketing mix work together to meet the organisation's marketing objectives</p> <p>1.5 Implement strategies for monitoring marketing activities and analysing marketing performance, in accordance with marketing plan</p>
2. Monitor marketing strategies and tactics	<p>2.1 Monitor and implement promotional activity against communication objectives in the marketing plan</p> <p>2.2 Monitor product, pricing and distribution decisions against organisational policy and objectives of the marketing plan</p> <p>2.3 Monitor marketing results against targets in the marketing plan</p> <p>2.4 Monitor marketing revenue and costs against budget, and analyse record variations</p> <p>2.5 Prepare and present marketing reports indicating ongoing progress towards marketing objectives</p>
3. Evaluate and improve marketing performance	<p>3.1 Regularly assess marketing performance against objectives</p> <p>3.2 Identify opportunities for improvement through discussion with customers and personnel responsible for each element of marketing mix</p> <p>3.3 Change business practices in line with changing customer requirements to maintain business relevance and viability</p> <p>3.4 Document recommendations for improvement in accordance with organisational requirements</p> <p>3.5 Communicate changes to marketing objectives and targets with relevant stakeholders, to facilitate implementation</p>

## Foundation Skills

*This section describes language, literacy, numeracy and employment skills incorporated in the performance criteria that are required for competent performance.*

Skill	Performance Criteria	Description
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Reading	1.3-1.5, 2.1-2.4, 3.1, 3.4	<ul style="list-style-type: none"> <li>Identifies and evaluates textual information to determine business achievements against workplace objectives</li> </ul>
Writing	1.1, 1.2, 2.5, 3.4, 3.5	<ul style="list-style-type: none"> <li>Uses clear, accurate and relevant language to organise and record information and complete workplace documentation</li> </ul>
Oral Communication	1.1, 1.2, 1.4, 1.5, 2.5, 3.2, 3.5	<ul style="list-style-type: none"> <li>Participates in verbal exchanges using appropriate language and non-verbal features</li> <li>Elicits views and opinions of others using active listening and questioning</li> </ul>
Numeracy	1.3, 2.2-2.4	<ul style="list-style-type: none"> <li>Uses mathematical techniques to analyse marketing performance, resource availability, revenue and cost</li> </ul>
Navigate the world of work	1.3-1.5, 2.1-2.3, 2.5, 3.1, 3.4	<ul style="list-style-type: none"> <li>Monitors adherence to organisational policies and objectives and considers own role in terms of its contribution to broader goals of work environment</li> </ul>
Interact with others	1.1, 1.2, 1.4, 1.5, 2.5, 3.2, 3.5	<ul style="list-style-type: none"> <li>Collaborates with others to achieve joint outcomes, playing an active role in facilitating effective group interaction</li> <li>Recognises importance of taking audience, purpose and contextual factors into account when making decisions about what to communicate with whom, why and how</li> </ul>
Get the work done	1.2, 1.3, 1.5, 2.1, 2.3, 2.4, 3.2, 3.3	<ul style="list-style-type: none"> <li>Develops plans and uses effective time management and organisational skills to complete tasks with an awareness of how they may contribute to longer-term operational and strategic goals</li> <li>In more complex, non-routine situations, uses formal decision-making processes, setting or clarifying goals, gathering information and identifying and evaluating several choices against a limited set of criteria</li> <li>When dealing with complex issues identifies cause of the problem, and uses analytical processes to generate possible solutions</li> </ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
BSBMKG514 Implement and monitor marketing	BSBMKG514A Implement and monitor marketing	Updated to meet Standards for Training Packages	Equivalent unit

<b>Code and title current version</b>	<b>Code and title previous version</b>	<b>Comments</b>	<b>Equivalence status</b>
activities	activities		

## Links

Companion Volume implementation guides are found in VETNet -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=11ef6853-ceed-4ba7-9d87-4da407e23c10>

# Assessment Requirements for BSBMKG514 Implement and monitor marketing activities

## Modification History

Release	Comments
Release 1	This version first released with BSB Business Services Training Package Version 1.0.

## Performance Evidence

Evidence of the ability to:

- successfully implement marketing strategies identified in an organisation's marketing plan
- coordinate personnel involved in conducting marketing activities
- monitor, evaluate and report on marketing activities against defined objectives
- modify marketing activities in line with new or emerging trends.

Note: If a specific volume or frequency is not stated, then evidence must be provided at least once.

## Knowledge Evidence

To complete the unit requirements safely and effectively, the individual must:

- outline organisational strategic and marketing objectives, plans and performance measures
- summarise principles of marketing mix
- explain key provisions of relevant legislation, codes of practice and national standards affecting marketing operations.

## Assessment Conditions

Assessment must be conducted in a safe environment where evidence gathered demonstrates consistent performance of typical activities experienced in the business development – marketing field of work and include access to:

- office equipment and resources
- relevant legislation, regulations, standards and codes
- organisational and marketing strategic plans
- case studies and, where possible, real situations
- interaction with others.



Assessors must satisfy NVR/AQTF assessor requirements.

## Links

Companion Volume implementation guides are found in VETNet -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=11ef6853-ceed-4ba7-9d87-4da407e23c10>

## BSBPMG522 Undertake project work

### Modification History

Release	Comments
Release 1	This version first released with BSB Business Services Training Package Version 1.0.

### Application

This unit describes the skills and knowledge required to undertake a straightforward project or a section of a larger project. It covers developing a project plan, administering and monitoring the project, finalising the project and reviewing the project to identify lessons learned for application to future projects.

This unit applies to individuals who play a significant role in ensuring a project meets timelines, quality standards, budgetary limits and other requirements set for the project.

The unit does not apply to specialist project managers. For specialist project managers, the other units of competency in the project management field (BSBPMG) will be applicable.

No licensing, legislative or certification requirements apply to this unit at the time of publication.

### Unit Sector

Management and Leadership – Project Management

### Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Define project	1.1 Access project scope and other relevant documentation 1.2 Define project stakeholders 1.3 Seek clarification from delegating authority of issues related to

ELEMENT	PERFORMANCE CRITERIA
	<p>project and project parameters</p> <p>1.4 Identify limits of own responsibility and reporting requirements</p> <p>1.5 Clarify relationship of project to other projects and to the organisation's objectives</p> <p>1.6 Determine and access available resources to undertake project</p>
2. Develop project plan	<p>2.1 Develop project plan in line with the project parameters</p> <p>2.2 Identify and access appropriate project management tools</p> <p>2.3 Formulate risk management plan for project, including Work Health and Safety (WHS)</p> <p>2.4 Develop and approve project budget</p> <p>2.5 Consult team members and take their views into account in planning the project</p> <p>2.6 Finalise project plan and gain necessary approvals to commence project according to documented plan</p>
3. Administer and monitor project	<p>3.1 Take action to ensure project team members are clear about their responsibilities and the project requirements</p> <p>3.2 Provide support for project team members, especially with regard to specific needs, to ensure that the quality of the expected outcomes of the project and documented time lines are met</p> <p>3.3 Establish and maintain required recordkeeping systems throughout the project</p> <p>3.4 Implement and monitor plans for managing project finances, resources and quality</p> <p>3.5 Complete and forward project reports as required to stakeholders</p> <p>3.6 Undertake risk management as required to ensure project outcomes are met</p> <p>3.7 Achieve project deliverables</p>
4. Finalise project	<p>4.1 Complete financial recordkeeping associated with project and check for accuracy</p> <p>4.2 Ensure transition of staff involved in project to new roles or reassignment to previous roles</p> <p>4.3 Complete project documentation and obtain necessary sign-offs for concluding project</p>
5. Review project	<p>5.1 Review project outcomes and processes against the project scope and plan</p>

ELEMENT	PERFORMANCE CRITERIA
	5.2 Involve team members in the project review 5.3 Document lessons learned from the project and report within the organisation

## Foundation Skills

*This section describes language, literacy, numeracy and employment skills incorporated in the performance criteria that are required for competent performance.*

Skill	Performance Criteria	Description
Reading	1.1, 3.4, 3.5, 4.1, 4.3, 5.1	<ul style="list-style-type: none"> <li>Organises, evaluates and critiques ideas and information from a range of complex texts</li> </ul>
Writing	2.1, 2.3, 2.6, 3.3, 3.5, 4.1, 4.3, 5.3	<ul style="list-style-type: none"> <li>Develops plans, reports and recommendations using vocabulary, structure and conventions appropriate to text</li> <li>Establishes and maintains records according to organisational requirements</li> </ul>
Numeracy	1.6, 2.4, 3.4, 4.1	<ul style="list-style-type: none"> <li>Uses formal and some informal, oral and written mathematical language and representation to prepare and communicate budgetary and financial information</li> </ul>
Oral communication	2.5, 5.2	<ul style="list-style-type: none"> <li>Participates in verbal discussions using clear language and appropriate features to present or seek information</li> <li>Using listening and questioning skills to seek information and confirm understanding</li> </ul>
Navigate the world of work	1.3, 1.4, 2.3, 3.1, 4.3	<ul style="list-style-type: none"> <li>Recognises and responds to organisational and legislative/regulatory requirements</li> </ul>
Interact with others	2.5, 3.1, 3.2, 4.2, 5.2	<ul style="list-style-type: none"> <li>Selects and uses appropriate communication protocols and practices to ensure shared understanding of project roles and expectations</li> <li>Uses collaborative techniques to engage stakeholders in consultations and negotiations</li> </ul>
Get the work done	1.2, 1.5, 1.6, 2.1, 2.2, 2.3, 2.6, 3.1-3.7, 4.1, 4.2, 4.3, 5.1, 5.3	<ul style="list-style-type: none"> <li>Develops and implements plans to manage projects that involve diverse stakeholders with potentially competing demands</li> <li>Systematically gathers and analyses all relevant information and evaluates options to make informed decisions</li> <li>Evaluates outcomes of decisions to identify</li> </ul>

		<ul style="list-style-type: none"><li>opportunities for improvement</li><li>• Uses digital technologies and applications to access, organise and share information</li></ul>
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## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
BSBPMG522 Undertake project work	BSBPMG522A Undertake project work	Updated to meet Standards for Training Packages	Equivalent unit

## Links

Companion Volume implementation guides are found in VETNet -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=11ef6853-ceed-4ba7-9d87-4da407e23c10>

# Assessment Requirements for BSBPMG522 Undertake project work

## Modification History

Release	Comments
Release 1	This version first released with BSB Business Services Training Package Version 1.0.

## Performance Evidence

Evidence of the ability to:

- define the parameters of the project including:
  - project scope
  - project stakeholders, including own responsibilities
  - relationship of project to organisational objectives and other projects
  - reporting requirements
  - resource requirements
- use project management tools to develop and implement a project plan including:
  - deliverables
  - work breakdown
  - budget and allocation of resources
  - timelines
  - risk management
  - recordkeeping and reporting
- consult and communicate with relevant stakeholders to generate input and engagement in planning, implementing and reviewing the project
- provide support to team members to enable them to achieve deliverables and to transition them as appropriate at completion of the project
- finalise the project including documentation, sign-offs and reporting
- review and document the project outcomes.

Note: If a specific volume or frequency is not stated, then evidence must be provided at least once.

## Knowledge Evidence

To complete the unit requirements safely and effectively, the individual must:

- give examples of project management tools and how they contribute to a project
- outline types of documents and other sources of information commonly used in defining the parameters of a project
- explain processes for identifying and managing risk in a project
- outline the organisation's mission, goals, objectives and operations and how the project relates to them
- explain the organisation's procedures and processes that are relevant to managing a project including:
  - lines of authority and approvals
  - quality assurance
  - human resources
  - budgets and finance
  - recordkeeping
  - reporting
- outline the legislative and regulatory context of the organisation in relation to project work, including work health and safety (WHS) requirements.

## Assessment Conditions

Assessment must be conducted in a safe environment where evidence gathered demonstrates consistent performance of typical activities experienced in the management and leadership – project management field of work and include access to:

- relevant legislation, regulations, standards and codes
- relevant workplace documentation and resources
- case studies and, where possible, real situations
- interaction with others.

Assessors must satisfy NVR/AQTF assessor requirements.

## Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=11ef6853-ceed-4ba7-9d87-4da407e23c10>

## BSBRES411 Analyse and present research information

### Modification History

Release	Comments
Release 1	This version first released with BSB Business Services Training Package Version 3.0.

### Application

This unit describes the skills and knowledge required to gather, organise, analyse and present workplace information using available systems and sources. This includes identifying research requirements and sources of information, applying information to a set of facts, evaluating the quality and reliability of the information, and preparing and producing reports.

It applies to individuals in roles in which they are required to apply their broad knowledge of the work environment to analysis and research tasks, evaluate information from a variety of sources and apply solutions to a range of predictable and unpredictable problems.

No licensing, legislation or certification requirements apply to this unit at the time of publication.

### Unit Sector

Knowledge Management – Research

### Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Identify reliable sources of research information	1.1 Identify potential sources for research information relevant to the organisation requirements 1.2 Assess reliability of potential sources, considering accuracy, authority, audience, relevance and likelihood of bias 1.3 Access research information and extract in a format suitable for analysis, interpretation and dissemination in accordance with



ELEMENT	PERFORMANCE CRITERIA
	organisational requirements 1.4 Store research information, in accordance with organisational requirements
2. Analyse and synthesise research information	2.1 Clearly define objectives of research ensuring consistency with organisational requirements 2.2 Ensure that information research strategies are relevant to the requirements of the research and aligned to organisational objectives 2.3 Apply information research strategy to obtain relevant information, identifying themes and drawing conclusions in line with established objectives of research 2.4 Demonstrate that assumptions and conclusions used in analyses are clear, justified, supported by evidence and consistent with research and business objectives
3. Present research information	3.1 Identify appropriate methods of reporting, considering the intended audience and relevant organisational requirements 3.2 Report on findings in an appropriate format, style and structure within a pre-determined timeframe 3.3 Report and distribute research findings in accordance with organisational requirements 3.4 Obtain feedback and comments on suitability and sufficiency of findings in accordance with organisational requirements

## Foundation Skills

This section describes those language, literacy, numeracy and employment skills that are essential to performance but not explicit in the performance criteria.

Skill	Description
Reading	<ul style="list-style-type: none"> <li>Analyses and evaluates textual information to develop information research strategies, integrate facts and ideas and meet organisational requirements</li> </ul>
Writing	<ul style="list-style-type: none"> <li>Gathers, evaluates and integrates information from a range of sources</li> <li>Presents findings, recommendations and issues in required format using language, structure and style appropriate to audience</li> </ul>
Oral	<ul style="list-style-type: none"> <li>Presents recommendations and issues using language appropriate to</li> </ul>

Communication	audience and according to organisational requirements
Navigate the world of work	<ul style="list-style-type: none"> <li>Recognises and follows organisational policies and procedures and meets expectations associated with own role</li> </ul>
Interact with others	<ul style="list-style-type: none"> <li>Selects and uses appropriate communication practices when seeking or sharing information</li> </ul>
Get the work done	<ul style="list-style-type: none"> <li>Plans, organises and implements tasks to meet organisational requirements</li> <li>Takes responsibility for the outcomes of routine decisions related directly to own role</li> <li>Uses the main features and functions of digital technologies and tools to complete work tasks</li> <li>Recognises and takes responsibility for addressing foreseeable problems in familiar work contexts</li> </ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
BSBRES411 Analyse and present research information Release 1	BSBRES401 Analyse and present research information Release 1	Updates to elements and performance criteria, performance and knowledge evidence.	Equivalent unit

## Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=11ef6853-ceed-4ba7-9d87-4da407e23c10>

## Assessment Requirements for BSBRES411 Analyse and present research information

### Modification History

Release	Comments
Release 1	This version first released with BSB Business Services Training Package Version 3.0.

### Performance Evidence

Evidence of the ability to:

- identify research requirements and objectives
- gather, organise and present research information
- communicate effectively with research stakeholders to clarify requirements
- maintain and handle information and documents systematically and securely
- preparing reports on research findings including:
  - recommendations based on the analysis of research information
  - clear and justified assumptions and conclusions
  - use of efficient and reliable research methods
- analyse, evaluate and interpret research information to support organisational activities.

Note: If a specific volume or frequency is not stated, then evidence must be provided at least once.

### Knowledge Evidence

The candidate must be able to demonstrate the following knowledge to effectively complete the tasks outlined in the elements and performance criteria of this unit, and to manage tasks and reasonably foreseeable contingencies in the context of the work role:

- Key features of organisational policies and procedures relating to:
  - the access of digital information
  - the storage/transmission of information
  - legal and ethical obligations relating to workplace information
- key concepts related to research and analysis including reliability and validity
- key features of research processes and strategies to identify new sources (online and print) of information and efficient and effective use.

## Assessment Conditions

Assessment must be conducted in a safe environment where evidence gathered demonstrates consistent performance of typical activities experienced in the knowledge management – research field of work and include access to:

- workplace information systems, equipment and resources
- workplace policies and procedures
- case studies and, where possible, real situations in the workplace.

Assessors of this unit must satisfy the assessor requirements in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volume implementation guides are found in VETNet -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=11ef6853-ceed-4ba7-9d87-4da407e23c10>

## BSBRSK401 Identify risk and apply risk management processes

### Modification History

Release	Comments
Release 1	This version first released with BSB Business Services Training Package Version 1.0.

### Application

This unit describes the skills and knowledge required to identify risks and to apply established risk management processes to a defined area of operations that are within the responsibilities and obligations of the role.

It applies to individuals with a broad knowledge of risk analysis or project management who contribute well developed skills in creating solutions to unpredictable problems through analysis and evaluation of information from a variety of sources. They may have responsibility to provide guidance or to delegate aspects of these tasks to others.

In this unit, risks applicable within own work responsibilities and area of operation, may include projects being undertaken individually or by a team, or operations within a section of the organisation.

No licensing, legislative or certification requirements apply to this unit at the time of publication.

### Unit Sector

Regulation, Licensing and Risk – Risk Management

### Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Identify risks	1.1 Identify the context for risk management 1.2 Identify risks using tools, ensuring all reasonable steps have

ELEMENT	PERFORMANCE CRITERIA
	<p>been taken to identify all risks</p> <p>1.3 Document identified risks in accordance with relevant policies, procedures, legislation and standards</p>
2. Analyse and evaluate risks	<p>2.1 Analyse and document risks in consultation with relevant stakeholders</p> <p>2.2 Undertake risk categorisation and determine level of risk</p> <p>2.3 Document analysis processes and outcomes</p>
3. Treat risks	<p>3.1 Determine appropriate control measures for risks and assess for strengths and weaknesses</p> <p>3.2 Identify control measures for all risks</p> <p>3.3 Refer risks relevant to whole of organisation or having an impact beyond own work responsibilities and area of operation to others as per established policies and procedures</p> <p>3.4 Choose and implement control measures for own area of operation and/or responsibilities</p> <p>3.5 Prepare and implement treatment plans</p>
4. Monitor and review effectiveness of risk treatment/s	<p>4.1 Regularly review implemented treatment/s against measures of success</p> <p>4.2 Use review results to improve the treatment of risks</p> <p>4.3 Provide assistance to auditing risk in own area of operation</p> <p>4.4 Monitor and review management of risk in own area of operation</p>

## Foundation Skills

*This section describes language, literacy, numeracy and employment skills incorporated in the performance criteria that are required for competent performance.*

Skill	Performance Criteria	Description
Reading	1.2	<ul style="list-style-type: none"> <li>Comprehends documents and texts of varying complexity to extract and analyse relevant information</li> </ul>
Writing	1.3, 2.1, 2.3, 3.5	<ul style="list-style-type: none"> <li>Uses specific, industry related terminology and logical organisational structure in workplace documents that identify and analyse risk and report management process outcomes</li> </ul>

Oral communication	2.1	<ul style="list-style-type: none"> <li>Participates effectively in interactions with stakeholders by using questioning and listening to elicit opinions and clarify understanding</li> </ul>
Numeracy	1.2, 4.1	<ul style="list-style-type: none"> <li>Uses numerical tools to assess risk and uses numerical data to review plans</li> </ul>
Navigate the world of work	1.1, 1.3, 3.3	<ul style="list-style-type: none"> <li>Complies with organisational and legislative requirements</li> <li>Takes responsibility for identification and management of risk within own work context and refers matters to others as required</li> </ul>
Interact with others	2.1	<ul style="list-style-type: none"> <li>Selects appropriate communication protocols and conventions when conferring with others to establish risk management requirements</li> </ul>
Get the work done	1.1, 1.2, 2.1, 2.2, 3.1, 3.2, 3.4, 3.5, 4.1, 4.2, 4.3, 4.4	<ul style="list-style-type: none"> <li>Determines job sequence and works logically and systematically to undertake defined tasks</li> <li>Uses analysis and consultative processes to inform decisions about selection and implementation of risk control measures</li> <li>Evaluates effectiveness of plans and results to inform improvement decisions</li> <li>Uses familiar digital technologies and systems to access information, prepare plans and communicate with others</li> </ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
BSBRSK401 Identify risk and apply risk management processes	BSBRSK401A Identify risk and apply risk management processes	Updated to meet Standards for Training Packages	Equivalent unit

## Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=11ef6853-ceed-4ba7-9d87-4da407e23c10>

# Assessment Requirements for BSBRSK401 Identify risk and apply risk management processes

## Modification History

Release	Comments
Release 1	This version first released with BSB Business Services Training Package Version 1.0.

## Performance Evidence

Evidence of the ability to apply organisational policies, procedures and processes to:

- identify risks
- consult with relevant stakeholders to analyse and evaluate risks
- identify and evaluate control measures
- develop and implement treatment plans for own area or responsibility
- refer risks that are beyond own area of responsibility to others
- maintain risk management documentation.

Note: If a specific volume or frequency is not stated, then evidence must be provided at least once.

## Knowledge Evidence

To complete the unit requirements safely and effectively, the individual must:

- outline techniques for identifying and evaluating risks
- outline organisational policies, procedures or processes for risk management
- give examples of areas where risks are commonly identified in an organisation
- outline the purpose and key elements of current risk management standards
- outline the legislative and regulatory context of the organisation in relation to risk management
- describe the organisation's auditing requirements relating to risk management.

## Assessment Conditions

Assessment must be conducted in a safe environment where evidence gathered demonstrates consistent performance of typical activities experienced in the regulation, licensing and risk - risk management field of work and include access to:



- relevant legislation, regulations, standards and codes
- relevant workplace documentation and resources
- case studies and, where possible, real situations
- interaction with others.

Assessors must satisfy NVR/AQTF assessor requirements.

## Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=11ef6853-ceed-4ba7-9d87-4da407e23c10>

## BSBSMB301 Investigate micro business opportunities

### Modification History

Release	Comments
Release 2	This version released with BSB Business Services Training Package Version 2.0.  Version created to clarify intent of unit
Release 1	This version first released with BSB Business Services Training Package Version 1.0.

### Application

This unit describes the skills and knowledge required to consider the major elements of a business idea, undertake research to determine viability of the business opportunity and present the idea with reference to the legislative frameworks affecting the business.

It applies to individuals who are establishing or operating a micro business for self-employment.

No licensing, legislative or certification requirements apply to this unit at the time of publication.

### Unit Sector

Management and Leadership – Small and Micro Business

### Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Describe business ideas	1.1 Gather information for business ideas from appropriate sources 1.2 List details of business ideas and opportunities 1.3 Research alternative business ideas in light of available

ELEMENT	PERFORMANCE CRITERIA
	<p>resources</p> <p>1.4 Specify and list products and services to match business ideas</p> <p>1.5 Identify and research potential customer information for business ideas</p> <p>1.6 Identify and take into account available financial, digital technology, business and technical skills when researching business opportunities</p>
2. Identify market needs	<p>2.1 Collect information regarding market size and potential from appropriate sources</p> <p>2.2 Investigate market trends and developments to identify market needs relative to business ideas</p> <p>2.3 Gather market information from primary and secondary sources to identify possible market needs in relation to business ideas</p> <p>2.4 Identify ethical and cultural requirements of the market, and their relevance for business ideas</p> <p>2.5 Identify new and emerging markets and document their features</p> <p>2.6 Identify and organise information on expected market growth or decline and associated risk factors</p>
3. Investigate factors affecting the market	<p>3.1 Identify projected changes in population, economic activity and labour force that may impact business ideas</p> <p>3.2 Identify movements in prices, and projected changes in availability of resources</p> <p>3.3 Review trends and developments and identify their potential impact on business ideas</p>

## Foundation Skills

*This section describes language, literacy, numeracy and employment skills incorporated in the performance criteria that are required for competent performance.*

Skill	Performance Criteria	Description
Reading	1.1, 1.3, 1.5, 2.1-2.6, 3.1-3.3	<ul style="list-style-type: none"> <li>Analyses and evaluates textual information to develop research strategies, integrate facts and ideas and meet</li> </ul>

		business requirements
Writing	1.1, 1.2, 1.4, 1.5, 2.3, 2.5	<ul style="list-style-type: none"> <li>Uses factual information and industry related terminology to complete required documentation</li> </ul>
Oral Communication	1.1, 1.5, 2.3, 2.5	<ul style="list-style-type: none"> <li>Clearly articulates requests using specific and relevant language, and uses listening and questioning techniques to confirm understanding</li> </ul>
Numeracy	2.1, 3.1, 3.2	<ul style="list-style-type: none"> <li>Extracts, evaluates and compares numerical information to determine resources and identify trends</li> </ul>
Get the work done	1.1, 1.5, 1.6, 2.1, 2.2, 2.5, 2.6, 3.1, 3.2	<ul style="list-style-type: none"> <li>Identifies changes to processes, products or services within scope of own business opportunities</li> <li>May invest time in developing and shaping several options before making a final choice, using a combination of lateral and analytical thinking to tailor and strengthen an idea to suit needs, resources and constraints</li> <li>Uses a range of digitally based technology and applications to access and filter data, and then extract, organise, integrate and share relevant information in increasingly effective ways.</li> </ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
BSBSMB301 Investigate micro business opportunities Release 2	BSBSMB301 Investigate micro business opportunities Release 1	Minor edits to clarify intent of unit	Equivalent unit

## Links

Companion Volume implementation guides are found in VETNet -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=11ef6853-ceed-4ba7-9d87-4da407e23c10>

# Assessment Requirements for BSBSMB301 Investigate micro business opportunities

## Modification History

Release	Comments
Release 2	This version released with BSB Business Services Training Package Version 2.0.  Version created to clarify intent of unit
Release 1	This version first released with BSB Business Services Training Package Version 1.0.

## Performance Evidence

Evidence of the ability to:

- research and analyse information from a range of sources to investigate a business opportunity, including:
  - financial considerations
  - digital technologies
  - market size, potential and trends
  - ethical and cultural requirements of the market
  - resource availability
- review data for potential impact on the market, products, services and customers
- match products and services to the business opportunity.

Note: If a specific volume or frequency is not stated, then evidence must be provided at least once.

## Knowledge Evidence

To complete the unit requirements safely and effectively, the individual must:

- locate and outline legislation and regulation relevant to specific micro business opportunities being investigated
- identify sources of specialist advice on trends in new and emerging markets and decline and risk factors

- summarise benefits and challenges of digital technologies relevant to micro business opportunities
- describe appropriate business research methods and data collection tools and software.

## Assessment Conditions

Assessment must be conducted in a safe environment where evidence gathered demonstrates consistent performance of typical activities experienced in the Management and Leadership – Small and Micro Business field of work and include access to:

- internet access for research
- data collection tools and software
- relevant legislation, regulations, standards and codes
- relevant workplace documentation and resources
- case studies, or where possible, real situations
- interaction with others.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volume implementation guides are found in VETNet -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=11ef6853-ceed-4ba7-9d87-4da407e23c10>

## BSBSMB401 Establish legal and risk management requirements of small business

### Modification History

Release	Comments
Release 2	This version released with BSB Business Services Training Package Version 2.0.  Version created to clarify intent of unit
Release 1	This version first released with BSB Business Services Training Package Version 1.0.

### Application

This unit describes the skills and knowledge required to identify and comply with all regulations affecting the business.

It applies to individuals operating a small business who use analytical skills to interpret legislation and regulations and develop procedures to manage compliance.

No licensing, legislative or certification requirements apply to this unit at the time of publication.

### Unit Sector

Management and Leadership – Small and Micro Business

### Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Identify and implement business legal requirements	1.1 Identify and research possible options for the business legal structure using appropriate sources 1.2 Determine legislation and regulatory requirements affecting

ELEMENT	PERFORMANCE CRITERIA
	<p>operations of the business under its chosen structure</p> <p>1.3 Develop and implement procedures to ensure full compliance with relevant legislation and regulatory requirements</p>
2. Comply with legislation, codes and regulatory requirements	<p>2.1 Establish systems to ensure legal rights and responsibilities of the business are identified and the business is adequately protected, specifically in relation to work health and safety (WHS), business registration and environmental requirements</p> <p>2.2 Identify taxation principles and requirements relevant to the business, and follow procedures to ensure compliance</p> <p>2.3 Identify and carefully maintain legal documents and maintain and update relevant records to ensure their ongoing security and accessibility</p> <p>2.4 Monitor provision of products and services of the business to protect legal rights and to comply with legal responsibilities</p> <p>2.5 Conduct investigations to identify areas of non-compliance with legal and regulatory requirements, and take corrective action where necessary</p>
3. Negotiate and arrange contracts	<p>3.1 Seek legal advice on contractual rights and obligations, if required, to clarify business liabilities</p> <p>3.2 Investigate and assess potential products and services to determine procurement rights and ensure protection of business interests where applicable</p> <p>3.3 Negotiate and secure contractual procurement rights for goods and services including contracts with relevant people, as required, in accordance with the business plan</p> <p>3.4 Identify options for leasing or ownership of business premises and complete contractual arrangements in accordance with the business plan</p>
4. Identify and treat business risks	<p>4.1 identify potential internal and external risks to the business</p> <p>4.2 assess the probability and impact of identified risks</p> <p>4.3 prioritise risks for treatment</p> <p>4.4 develop actions to mitigate risks including identifying insurance requirements and adequate cover</p>



## Foundation Skills

*This section describes language, literacy, numeracy and employment skills incorporated in the performance criteria that are required for competent performance.*

Skill	Performance Criteria	Description
Reading	1.1-1.3, 2.1-2.4, 3.2-3.5	<ul style="list-style-type: none"> <li>Identifies, analyses and evaluates a range of complex text to determine legislative, regulatory and related business requirements</li> </ul>
Writing	1.3, 2.1, 2.3, 2.5, 3.1, 3.3, 3.5	<ul style="list-style-type: none"> <li>Prepares written reports and workplace documentation that communicate complex information clearly and effectively</li> </ul>
Oral Communication	2.5, 3.1, 3.3	<ul style="list-style-type: none"> <li>Uses specific and relevant language to clearly articulate legal issues, and uses questioning and listening techniques to clarify solutions</li> <li>Participates in verbal negotiations using tone and language suitable to audience</li> </ul>
Numeracy	2.2, 2.5, 3.3, 3.4	<ul style="list-style-type: none"> <li>Reviews, analyses, compares and contrasts numerical data which may be embedded in documents</li> <li>Calculates business insurance costs and compares costing options</li> </ul>
Navigate the world of work	1.2, 1.3, 2.1	<ul style="list-style-type: none"> <li>Monitors adherence to organisational policies and legislative responsibilities and considers own role in terms of its contribution to broader goals of work environment</li> </ul>
Interact with others	3.1, 3.3	<ul style="list-style-type: none"> <li>Plays a lead role in situations requiring effective collaboration, demonstrating high-level influencing skills, focusing and shaping awareness, and engaging and motivating others</li> </ul>
Get the work done	1.1-1.3, 2.1	<ul style="list-style-type: none"> <li>Takes responsibility for planning and organising own workload, identifying ways of sequencing and combining elements for greater efficiency</li> <li>Implements actions as per plan, making adjustments if necessary and addressing unexpected issues</li> <li>Understands importance of secure information and privacy in relation to own work and takes personal responsibility for identifying and managing risk factors</li> <li>Makes a range of critical and non-critical decisions in complex situations, taking a range of constraints into account</li> </ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
BSBSMB401 Establish legal and risk management requirements of small business Release 2	BSBSMB401 Establish legal and risk management requirements of small business Release 1	Minor edits to clarify intent of unit	Equivalent unit

## Links

Companion Volume implementation guides are found in VETNet -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=11ef6853-ceed-4ba7-9d87-4da407e23c10>

## Assessment Requirements for BSBSMB401 Establish legal and risk management requirements of small business

### Modification History

Release	Comments
Release 2	This version released with BSB Business Services Training Package Version 2.0.  Version created to clarify intent of unit
Release 1	This version first released with BSB Business Services Training Package Version 1.0.

### Performance Evidence

Evidence of the ability to:

- demonstrate a systematic approach to identifying, managing and meeting legal and regulatory requirements, specifically in regard to WHS, business registration and environmental requirements
- ensure compliance, by:
  - following taxation and industrial relations principles
  - updating and maintaining legal documents
  - investigating areas of non-compliance
  - monitoring provision of products and services
  - taking corrective action where necessary
- negotiate and arrange contracts, including:
  - seeking legal advice
  - investigating procurement rights
  - identifying options of leasing or ownership of business premises.
- Identify, assess and treat risks specific to the business including
  - prioritising risks with highest probability of occurrence and greatest negative impact on the business
  - identifying insurance requirements

Note: If a specific volume or frequency is not stated, then evidence must be provided at least once.

## Knowledge Evidence

To complete the unit requirements safely and effectively, the individual must:

- outline business registration and licensing requirements
- identify all government legislative requirements relating to the specific business operation
- explain creation and termination of relevant legal contracts
- summarise relevant cultural differences and legal implications
- describe legal rights and obligations of alternative ownership structures
- outline necessary record keeping to meet minimum legal and taxation requirements
- summarise relevant consumer legislation and industry codes of practice
- outline the key steps in the risk management process
- explain relevant insurance requirements and products.

## Assessment Conditions

Assessment must be conducted in a safe environment where evidence gathered demonstrates consistent performance of typical activities experienced in the Management and Leadership – Small and Micro Business field of work and include access to:

- office equipment and resources
- business technology including internet access
- specialist software for analysis of data
- relevant legislation, regulations, standards and codes
- relevant workplace documentation and resources
- case studies, or where possible, real situations
- interaction with others.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=11ef6853-ceed-4ba7-9d87-4da407e23c10>

## BSBSMB402 Plan small business finances

### Modification History

Release	Comments
Release 2	This version released with BSB Business Services Training Package Version 2.0.  Version created to clarify intent of unit
Release 1	This version first released with BSB Business Services Training Package Version 1.0.

### Application

This unit describes the skills and knowledge required to identify financial requirements of a business, including profit targets, cash flow projections and strategies to garner financial support.

It applies to individuals who operate a small business or work within an existing micro or small businesses and interpret financial data.

No licensing, legislative or certification requirements apply to this unit at the time of publication.

### Unit Sector

Management and Leadership – Small and Micro Business

### Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Identify costs, calculate prices and prepare profit statement	1.1 Identify and document costs associated with production and delivery of business products and services 1.2 Calculate prices based on costs and profit margin, as an hourly

ELEMENT	PERFORMANCE CRITERIA
	<p>charge-out rate for labour or unit price for products</p> <p>1.3 Calculate break-even sales point to establish business viability and profit margins</p> <p>1.4 Identify appropriate pricing strategies in relation to market conditions to meet business profit targets</p> <p>1.5 Prepare projected profit statement to supplement the business plan</p>
2. Develop a financial plan	<p>2.1 Set profit targets or goals to reflect owner's desired returns</p> <p>2.2 Identify working capital requirements necessary to attain profit projections</p> <p>2.3 Identify non-current asset requirements and consider alternative asset management strategies</p> <p>2.4 Prepare cash flow projections to enable business operation in accordance with business plan and legal requirements</p> <p>2.5 Identify capital investment requirements accurately for each operational period</p> <p>2.6 Select budget targets to enable ongoing monitoring of financial performance</p>
3. Acquire finance	<p>3.1 Identify start-up and ongoing financial requirements according to financial plan/budget</p> <p>3.2 Identify sources of finance, including potential financial backers, to provide required liquidity for the business to complement business goals and objectives</p> <p>3.3 Investigate cost of securing finance on optimal terms</p> <p>3.4 Identify strategies to obtain finance as required to ensure financial viability of the business</p>

## Foundation Skills

*This section describes language, literacy, numeracy and employment skills incorporated in the performance criteria that are required for competent performance.*

Skill	Performance Criteria	Description
Reading	1.1, 1.5, 2.1-2.5, 3.1,	<ul style="list-style-type: none"> <li>Identifies, analyses and evaluates complex information from a range of sources</li> </ul>

	3.2	
Writing	1.1, 1.5, 2.1, 2.4, 3.2	<ul style="list-style-type: none"> <li>Prepares written reports and workplace documentation that communicate complex information clearly and effectively</li> </ul>
Oral Communication	1.1, 3.2	<ul style="list-style-type: none"> <li>Uses specific and relevant language to secure finance and uses questioning and listening techniques to clarify outcomes</li> <li>Participates in verbal negotiations using tone and language suitable to audience</li> </ul>
Numeracy	1.1-1.5, 2.1, 2.2, 2.4-2.6, 3.1, 3.3, 3.4	<ul style="list-style-type: none"> <li>Analyses numerical information to determine costs, prices, profit and losses, and other financial data</li> </ul>
Navigate the world of work	2.4	<ul style="list-style-type: none"> <li>Appreciates implications of legal and regulatory responsibilities related to own work</li> </ul>
Get the work done	1.1, 1.4, 2.1-2.3, 2.5, 2.6, 3.1, 3.2, 3.4	<ul style="list-style-type: none"> <li>Sequences and schedules complex activities, including implementing and monitoring financial strategies</li> <li>Makes a range of critical and non-critical decisions in relatively complex situations, taking a range of constraints into account, making adjustments as necessary</li> <li>Regularly uses formal thinking techniques to generate new ideas</li> </ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
BSBSMB402 Plan small business finances Release 2	BSBSMB402 Plan small business finances Release 1	Updated to clarify intent	Equivalent unit

## Links

Companion Volume implementation guides are found in VETNet -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=11ef6853-ceed-4ba7-9d87-4da407e23c10>

# Assessment Requirements for BSBSMB402 Plan small business finances

## Modification History

Release	Comments
Release 2	This version first released with BSB Business Services Training Package Version 2.0. Version created to clarify intent of unit
Release 1	This version first released with BSB Business Services Training Package Version 1.0.

## Performance Evidence

Evidence of the ability to:

- develop a financial plan which identifies financial requirements of the business, including cash flow projections and a projected profit statement
- follow the financial plan, including:
  - demonstrating an awareness of appropriate legal requirements
  - implementing strategies to monitor financial performance
- identify sources and investigate costs of securing appropriate financial assistance.

Note: If a specific volume or frequency is not stated, then evidence must be provided at least once.

## Knowledge Evidence

To complete the unit requirements safely and effectively, the individual must:

- explain break-even analysis
- clarify costing for the business, including margin or mark-up, hourly charge-out rates and unit costs
- summarise financial decision-making relevant to the business
- outline methods and relative costs of obtaining finance
- summarise principles for preparing balance sheets
- provide a detailed explanation of:
  - principles for preparation of cash flow forecasts
  - principles for preparation of profit and loss statements



- purpose of financial reports
- explain relevant accounting terminology
- describe working capital cycles.

## Assessment Conditions

Assessment must be conducted in a safe environment where evidence gathered demonstrates consistent performance of typical activities experienced in the Management and Leadership – Small and Micro Business field of work and include access to:

- software for financial calculations
- relevant legislation, regulations, standards and codes
- relevant workplace documentation and resources
- case studies or where possible, real situations.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volume implementation guides are found in VETNet -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=11ef6853-ceed-4ba7-9d87-4da407e23c10>

## BSBSMB403 Market the small business

### Modification History

Release	Comments
Release 2	This version released with BSB Business Services Training Package Version 2.0.  Version created to clarify intent
Release 1	This version first released with BSB Business Services Training Package Version 1.0.

### Application

This unit describes the skills and knowledge required to monitor and improve business performance via a clear marketing strategy integrated into the business plan.

It applies to individuals who operate a small business independently or within a larger organisation. Individuals in this role analyse and interpret market data.

No licensing, legislative or certification requirements apply to this unit at the time of publication.

### Unit Sector

Management and Leadership – Small and Micro Business

### Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Develop marketing strategies	1.1 Analyse the business and its key products or services to determine focus of marketing activities, in accordance with objectives of the business plan  1.2 Evaluate customer base and target market for the small

ELEMENT	PERFORMANCE CRITERIA
	<p>business as a basis for marketing objectives and strategies</p> <p>1.3 Conduct a competitor analysis to inform development of marketing strategies</p> <p>1.4 Determine marketing objectives in consultation with relevant people and in accordance with the business plan</p> <p>1.5 Ensure strategies are ethically and culturally appropriate and aligned with customer and industry expectations</p>
2. Determine a marketing mix for the business	<p>2.1 Assess product mix, volumes and pricing opportunities to determine marketing focus and optimise profit</p> <p>2.2 Evaluate costs and benefits of using different distribution channels or providing different levels of customer service, and consider results in determining marketing mix</p> <p>2.3 Determine marketing and promotional activities including the role of digital engagement to suit target market</p> <p>2.4 Consider the customer journey and conversations in determining marketing mix</p>
3. Implement marketing strategies	<p>3.1 Brief those involved in the marketing effort on their roles and responsibilities, to ensure success of marketing strategies</p> <p>3.2 Plan and implement marketing activities, in accordance with marketing objectives and budgetary requirements</p> <p>3.3 Consider digital devices, platforms and technologies for effectiveness in implementing marketing activities</p>
4. Monitor and improve marketing performance	<p>4.1 Monitor marketing activities and evaluate business performance according to objectives and targets of the business plan</p> <p>4.2 Analyse performance gaps and take corrective action or set new targets</p> <p>4.3 Encourage all relevant people to propose ways to improve marketing performance</p> <p>4.4 Seek and analyse customer reaction to all aspects of the marketing mix, using culturally appropriate processes, to improve targeting and outcomes</p> <p>4.5 Conduct ongoing research of customer requirements and expectations in both on-line and off-line environments to identify opportunities for change and improvement</p> <p>4.6 Identify and respond to opportunities to aid business development through new technologies and different ways of</p>

ELEMENT	PERFORMANCE CRITERIA
	marketing

## Foundation Skills

*This section describes language, literacy, numeracy and employment skills incorporated in the performance criteria that are required for competent performance.*

Skill	Performance Criteria	Description
Reading	1.1-1.3, 2.2-2.4, 3.2, 4.1, 4.4, 4.6	<ul style="list-style-type: none"> <li>Identifies, analyses and evaluates complex information from a range of sources</li> </ul>
Writing	1.3, 2.3, 2.5, 3.1, 3.2, 4.4-4.6	<ul style="list-style-type: none"> <li>Prepares reports and other workplace documentation using structure, layout and terminology appropriate to the audience</li> </ul>
Oral Communication	1.3, 3.1, 4.3, 4.4	<ul style="list-style-type: none"> <li>Presents ideas and requirements clearly and using language and non-verbal techniques appropriate to audience and environment</li> <li>Uses questioning and listening to check and confirm understanding</li> </ul>
Numeracy	2.1, 2.2, 3.2, 4.2	<ul style="list-style-type: none"> <li>Analyses numerical information to determine budgetary requirements and product quantities</li> <li>Uses a range of calculation methods to evaluate costs and benefits</li> </ul>
Navigate the world of work	4.5	<ul style="list-style-type: none"> <li>Regularly reviews current situation and develops strategies to address improvements in marketing performance</li> </ul>
Interact with others	4.3	<ul style="list-style-type: none"> <li>Recognises importance of building rapport to establish effective working relationships</li> </ul>
Get the work done	1.1-1.3, 2.1-2.5, 3.2, 4.1, 4.2	<ul style="list-style-type: none"> <li>Takes responsibility for planning and organising own workload, identifying ways of sequencing and combining elements for greater efficiency</li> <li>Implements actions as per plan, making slight adjustments if necessary and addressing some unexpected issues</li> <li>Makes a range of critical and non-critical decisions in relatively complex situations, taking a range of constraints into account</li> <li>Identifies concepts, principles and features of approaches in use in other contexts, and redesigns</li> </ul>

		these to suit own situation <ul style="list-style-type: none"><li>• Uses formal and informal processes to monitor implementation of solutions and reflect on outcomes</li></ul>
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## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
BSBSMB403 Market the small business Release 2	BSBSMB403 Market the small business Release 1	Updated to clarify intent	Equivalent unit

## Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=11ef6853-ceed-4ba7-9d87-4da407e23c10>

# Assessment Requirements for BSBSMB403 Market the small business

## Modification History

Release	Comments
Release 2	This version first released with BSB Business Services Training Package Version 2.0.  Version created to clarify intent of unit
Release 1	This version first released with BSB Business Services Training Package Version 1.0.

## Performance Evidence

Evidence of the ability to:

- determine marketing activity focus in line with objectives of the business plan
- evaluate customer base
- understand what is ethically and culturally appropriate
- determine a marketing mix according to market and business needs, including:
  - ability to optimise sales and profit
  - ability to evaluate costs and benefits
  - determine customer needs and promotional activities
- determine marketing strategies, including briefing appropriate personnel on their responsibilities
- identify marketing opportunities in the digital environment
- develop approaches to engage, respond and monitor customers in the digital space
- monitor and evaluate activities and performance, and correct performance gaps
- consult and communicate effectively with relevant people
- research and monitor ongoing changes and improvements.

Note: If a specific volume or frequency is not stated, then evidence must be provided at least once.

## Knowledge Evidence

To complete the unit requirements safely and effectively, the individual must:

- discuss industry market trends
- identify performance evaluation methods
- explain methods of analysing costs and benefits of marketing strategies
- summarise methods of developing marketing objectives and marketing mix
- compare current digital devices, platforms and technologies for effectiveness in achieving marketing objectives
- outline methods of monitoring customer satisfaction
- identify relevant market analysis and research
- provide a detailed explanation of relevant marketing concepts and methods.

## Assessment Conditions

Assessment must be conducted in a safe environment where evidence gathered demonstrates consistent performance of typical activities experienced in the Management and Leadership – Small and Micro Business field of work and include access to:

- business technology
- software for analysis of data
- workplace documents and case studies or where possible, real situations
- interaction with others.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=11ef6853-ceed-4ba7-9d87-4da407e23c10>

## BSBSMB404 Undertake small business planning

### Modification History

Release	Comments
Release 2	This version released with BSB Business Services Training Package Version 2.0. Version created to clarify intent of unit
Release 1	This version first released with BSB Business Services Training Package Version 1.0.

### Application

This unit describes the skills and knowledge required to research and develop an integrated business plan for achieving business goals and objectives.

It applies to individuals who operate a small business that operates independently, or as part of a larger organisation. Individuals in this role interpret business information and numerical data competently.

No licensing, legislative or certification requirements apply to this unit at the time of publication.

### Unit Sector

Management and Leadership – Small and Micro Business

### Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Identify elements of the business plan	1.1 Identify purpose of the business plan 1.2 Identify and review essential components of the business plan 1.3 Identify and document business goals and objectives as a basis for measuring business performance



ELEMENT	PERFORMANCE CRITERIA
2. Develop a business plan	<p>2.1 Research resources, legal and compliance requirements, specifically in relation to work health and safety (WHS), in accordance with business goals and objectives</p> <p>2.2 Research market needs, and market size and potential</p> <p>2.3 Identify sources and costs of finance, from financial plan, to provide required liquidity and profitability for the business</p> <p>2.4 Identify methods, from marketing strategies, to promote market exposure of the business</p> <p>2.5 Identify methods or means of production or operation from production or operations plan to conform with business goals and objectives</p> <p>2.6 Identify staffing requirements to effectively produce or deliver products and services</p> <p>2.7 Identify, assess and prioritise internal and external risks</p> <p>2.8 Identify specialist services and sources of advice, where required, and cost in accordance with available resources</p>
3. Develop strategies for minimising risks	<p>3.1 Identify specific interests and objectives of relevant people and seek and confirm their support of planned business direction</p> <p>3.2 Identify and develop risk management strategies according to business goals and objectives, and relevant legal requirements</p> <p>3.3 Develop a contingency plan to address possible areas of non-conformance with the plan</p>

## Foundation Skills

*This section describes language, literacy, numeracy and employment skills incorporated in the performance criteria that are required for competent performance.*

Skill	Performance Criteria	Description
Reading	1.1-1.3, 2.1-2.7, 3.1, 3.2	<ul style="list-style-type: none"> <li>Identifies, analyses and evaluates complex workplace documentation during planning process</li> </ul>
Writing	1.3, 2.3-2.7, 3.1-3.3	<ul style="list-style-type: none"> <li>Prepares written reports and workplace documentation that communicate complex information clearly and effectively</li> </ul>
Oral	1.1, 3.1	<ul style="list-style-type: none"> <li>Articulates ideas and requirements clearly and</li> </ul>

Communication		creatively based on techniques appropriate to assess business performance
Numeracy	2.2, 2.3, 2.5-2.7	<ul style="list-style-type: none"> <li>Interprets numerical information to determine prospective markets, resource allocations and business profits/losses</li> </ul>
Navigate the world of work	2.1, 3.2	<ul style="list-style-type: none"> <li>Appreciates implications of legal and regulatory responsibilities related to own work</li> </ul>
Interact with others	3.1	<ul style="list-style-type: none"> <li>Looks for strengths in others, finding ways of working with and building on these and sharing own knowledge and experience freely</li> </ul>
Get the work done	1.1, 1.2, 2.1-2.7, 3.2, 3.3	<ul style="list-style-type: none"> <li>Uses a combination of formal, logical planning processes and an increasingly intuitive understanding of context to identify relevant information and to evaluate alternative strategies</li> <li>Implements actions as per plan, making slight adjustments if necessary, and addressing some unexpected issues</li> <li>Makes a range of critical and non-critical decisions in relatively complex situations, taking a range of constraints into account</li> <li>Identifies concepts, principles and features of approaches in use in other contexts, and redesigns these to suit own situation</li> <li>Uses formal and informal processes to monitor implementation of solutions and reflect on outcomes</li> </ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
BSBSMB404 Undertake small business planning Release 2	BSBSMB404 Undertake small business planning Release 1	Updated to clarify intent	Equivalent unit

## Links

Companion Volume implementation guides are found in VETNet -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=11ef6853-ceed-4ba7-9d87-4da407e23c10>



# Assessment Requirements for BSBSMB404 Undertake small business planning

## Modification History

Release	Comments
Release 2	This version released with BSB Business Services Training Package Version 2.0. Version created to clarify intent of unit
Release 1	This version first released with BSB Business Services Training Package Version 1.0.

## Performance Evidence

Evidence of the ability to:

- develop a business plan which provides for finance, marketing and provision of products or services to facilitate all business goals and objectives
- identify and plan all work health and safety (WHS) and duty of care responsibilities
- identify and assess internal and external risks to the business
- develop risk management strategies including a contingency plan for non-conformance.

Note: If a specific volume or frequency is not stated, then evidence must be provided at least once.

## Knowledge Evidence

To complete the unit requirements safely and effectively, the individual must:

- discuss all government legislative requirements relating to business operation, especially in regard to WHS and environmental issues, equal employment opportunity, industrial relations and anti-discrimination
- explain methods of evaluation
- summarise WHS responsibilities and procedures for identifying hazards relevant to the business
- outline planning processes
- describe preparation of a business plan
- identify principles of risk management relevant to small business planning
- outline common risks particular to the small business type or industry
- explain reasons for, and benefits of, business planning

- clarify relevant industry codes of practice
- outline setting goals and objectives
- explain types of business planning – feasibility studies; strategic, operational, financial and marketing planning.

## Assessment Conditions

Assessment must be conducted in a safe environment where evidence gathered demonstrates consistent performance of typical activities experienced in the Management and Leadership – Small and Micro Business field of work and include access to:

- business equipment and resources
- relevant legislation, regulations, standards and codes
- relevant workplace documentation and resources
- case studies or where possible, real situations
- interaction with others.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volume implementation guides are found in VETNet -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=11ef6853-ceed-4ba7-9d87-4da407e23c10>

## BSBSMB405 Monitor and manage small business operations

### Modification History

Release	Comments
Release 3	This version released with BSB Business Services Training Package Version 2.0.  Version created to clarify intent of unit
Release 2	This version first released with BSB Business Services Training Package Version 1.1.  Version created to correct mapping table information
Release 1	This version first released with BSB Business Services Training Package Version 1.0.

### Application

This unit describes the skills and knowledge required to implement a business plan and modify operations as required.

It applies to individuals who operate a small business which stands alone, or is part of a department within a larger organisation. Individuals in this role use problem-solving skills and take responsibility for developing approaches to manage business operations.

No licensing, legislative or certification requirements apply to this unit at the time of publication.

### Unit Sector

Management and Leadership – Small and Micro Business

### Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
<i>Elements describe the</i>	<i>Performance criteria describe the performance needed to</i>

ELEMENT	PERFORMANCE CRITERIA
<i>essential outcomes.</i>	<i>demonstrate achievement of the element.</i>
1. Develop operational strategies and procedures	<p>1.1 Develop an action plan to provide a clear and coherent direction, in accordance with business goals and objectives</p> <p>1.2 Identify work health and safety (WHS) and environmental issues, and implement strategies to minimise risk factors</p> <p>1.3 Develop a quality system for the business in line with industry standards, compliance requirements and cultural criteria</p> <p>1.4 Develop performance measures and operational targets to conform with the business plan</p> <p>1.5 Develop strategies for innovation, including utilisation of existing, new or emerging technologies, where practicable, to optimise business performance</p>
2. Implement operational strategies and procedures	<p>2.1 Implement systems and key performance indicators or targets to monitor business performance and customer satisfaction</p> <p>2.2 Implement systems to control stock, expenditure or cost, wastage or shrinkage and risks to health and safety in accordance with the business plan</p> <p>2.3 Maintain staffing requirements, where applicable, within budget, to maximise productivity</p> <p>2.4 Carry out provision of goods or services in accordance with established legal, ethical cultural and technical standards</p> <p>2.5 Provide goods or services in accordance with time, cost and quality specifications, and customer requirements</p> <p>2.6 Apply quality procedures to address product or service and customer requirements</p>
3. Monitor business performance	<p>3.1 Regularly monitor and review achievement of operational targets to ensure optimum business performance, in accordance with business plan goals and objectives</p> <p>3.2 Review systems and structures, with a view to more effectively supporting business performance</p> <p>3.3 Investigate and analyse operating problems to establish causes and implement changes as required, as part of the business quality system</p> <p>3.4 Amend operational policies and procedures to incorporate corrective action</p>
4. Review business operations	<p>4.1 Review and adjust business plan, as required, to maintain business viability, in accordance with business goals and</p>

ELEMENT	PERFORMANCE CRITERIA
	<p>objectives</p> <p>4.2 Clearly record proposed changes to aid future planning and evaluation</p> <p>4.3 Undertake ongoing research into new business opportunities and adjust business goals and objectives as new business opportunities arise</p>

## Foundation Skills

*This section describes language, literacy, numeracy and employment skills incorporated in the performance criteria that are required for competent performance.*

Skill	Performance Criteria	Description
Reading	1.1, 1.3, 1.5, 2.1, 2.2, 2.4, 2.5, 3.1, 4.1	<ul style="list-style-type: none"> <li>Evaluates complex text to determine legislative, regulatory and workplace documentation</li> </ul>
Writing	1.1, 1.3-1.5, 3.2, 3.4, 4.1, 4.2	<ul style="list-style-type: none"> <li>Prepares written reports and workplace documentation that communicate complex information clearly and effectively</li> </ul>
Oral Communication	3.2	<ul style="list-style-type: none"> <li>Articulates clearly using specific and relevant language suitable to audience to convey requirements, and employs listening and questioning techniques to confirm understanding</li> </ul>
Numeracy	2.2, 2.3, 2.5	<ul style="list-style-type: none"> <li>Interprets numerical information to manage performance information and regulate cash flow</li> </ul>
Navigate the world of work	1.1-1.3, 2.2, 2.4, 4.1	<ul style="list-style-type: none"> <li>Monitors adherence to organisational policies and procedures and considers own role for its contribution to broader goals of the work environment</li> <li>Appreciates implications of legal and regulatory responsibilities related to own work with specific reference to safety</li> </ul>
Get the work done	1.1, 1.3-1.5, 2.1-2.3, 2.5, 2.6, 3.1-3.3, 4.1, 4.3	<ul style="list-style-type: none"> <li>Reflects on how digital systems and tools are used or could be used to achieve work goals, and begins to recognise strategic and operational applications</li> <li>Identifies concepts, principles and features of approaches in use in other contexts and considers how these may suit own situation</li> <li>Develops plans to manage relatively complex, non-routine tasks with an awareness of how they may</li> </ul>



		<p>contribute to longer-term operational and strategic goals</p> <ul style="list-style-type: none"><li>• Uses each experience to reflect on how variables impact decision outcomes, and to gain insights into what constitutes 'good' judgement and an effective decision in different contexts</li><li>• Recognises and addresses some unfamiliar problems of increasing complexity within own scope</li></ul>
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## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
BSBSMB405 Monitor and manage small business operations Release 3	BSBSMB405 Monitor and manage small business operations Release 2	Updated to clarify intent	Equivalent unit

## Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=11ef6853-ceed-4ba7-9d87-4da407e23c10>

## Assessment Requirements for BSBSMB405 Monitor and manage small business operations

### Modification History

Release	Comments
Release 3	<p>This version released with BSB Business Services Training Package Version 2.0.</p> <p>Version created to clarify intent of unit</p>
Release 2	<p>This version first released with BSB Business Services Training Package Version 1.1.</p> <p>Version created to correct mapping table information</p>
Release 1	<p>This version first released with BSB Business Services Training Package Version 1.0.</p>

### Performance Evidence

Evidence of the ability to:

- develop strategies and procedures to successfully manage business operations, including:
  - developing an action plan
  - identifying risk management procedures
  - developing a quality system
  - implementing performance measures
  - utilising technologies to optimise business performance
- implement and monitor strategies and procedures developed, including:
  - analysing and correcting business problems
  - reviewing and adjusting the business plan
- record and research business improvements
- make appropriate adjustments to business operations as required.

Note: If a specific volume or frequency is not stated, then evidence must be provided at least once.

## Knowledge Evidence

To complete the unit requirements safely and effectively, the individual must:

- summarise relevant industry codes of practice
- explain methods for implementing operation and revenue control systems
- summarise methods for monitoring performance and implementing improvements
- outline work health and safety (WHS) responsibilities and procedures for managing hazards
- identify relevant principles of risk management, including risk assessment
- clarify quality system principles and methods
- summarise relevant performance measures
- discuss role of innovation
- outline systems to manage staff, stock, expenditure, services and customer service
- identify technical or specialist skills relevant to business operations.

## Assessment Conditions

Assessment must be conducted in a safe environment where evidence gathered demonstrates consistent performance of typical activities experienced in the Management and Leadership – Small and Micro Business field of work and include access to:

- business equipment and resources
- relevant legislation, regulations, standards and codes
- relevant workplace documentation and resources
- case studies or possible, real situations
- interaction with others.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volume implementation guides are found in VETNet -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=11ef6853-ceed-4ba7-9d87-4da407e23c10>

## BSBSMB406 Manage small business finances

### Modification History

Release	Comments
Release 2	This version released with BSB Business Services Training Package Version 2.0. Version created to clarify intent of unit
Release 1	This version first released with BSB Business Services Training Package Version 1.0.

### Application

This unit describes the skills and knowledge required to implement and review financial management strategies on a regular basis.

It applies to individuals who operate a small business that stands alone, or is part of a department within a larger organisation. Individuals in this role interpret financial reports and other numerical data to develop financial management strategies.

No licensing, legislative or certification requirements apply to this unit at the time of publication.

### Unit Sector

Management and Leadership – Small and Micro Business

### Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Implement financial plan	1.1 Identify financial information requirements and obtain specialist services, as required, to profitably operate the business in accordance with the business plan 1.2 Produce financial budgets or projections, including cash flow

ELEMENT	PERFORMANCE CRITERIA
	<p>estimates, as required for each forward period, and distribute to relevant people in accordance with legal requirements</p> <p>1.3 Negotiate, secure and manage business capital to best enable implementation of the business plan and to meet requirements of financial backers</p> <p>1.4 Develop and maintain strategies to enable adequate financial provision for taxation in accordance with legal requirements</p> <p>1.5 Develop, monitor and maintain client credit policies, including contingencies for debtors in default, to maximise cash flow</p> <p>1.6 Select key performance indicators to enable ongoing monitoring of financial performance</p> <p>1.7 Record and communicate financial procedures to relevant people to facilitate implementation of the business plan</p>
2. Monitor financial performance	<p>2.1 Regularly monitor and report on financial performance targets, and analyse data to establish extent to which the financial plan has been met</p> <p>2.2 Monitor marketing and operational strategies for their effects on the financial plan</p> <p>2.3 Calculate and evaluate financial ratios according to own or industry benchmarks</p> <p>2.4 Assess financial plan to determine whether variations or alternative plans are needed, and change as required</p>

## Foundation Skills

*This section describes language, literacy, numeracy and employment skills incorporated in the performance criteria that are required for competent performance.*

Skill	Performance Criteria	Description
Reading	1.1-1.4, 2.1, 2.4	<ul style="list-style-type: none"> <li>Evaluates complex text to determine legislative, regulatory and workplace documentation</li> </ul>
Writing	1.2-1.5, 1.7, 2.1	<ul style="list-style-type: none"> <li>Prepares written reports and workplace documentation that communicate complex information clearly and effectively</li> </ul>
Oral Communication	1.3, 1.7, 2.1	<ul style="list-style-type: none"> <li>Articulates clearly using specific and relevant language suitable to audience to convey requirements, and employs listening and questioning techniques to</li> </ul>

		confirm understanding <ul style="list-style-type: none"> <li>Participates in verbal negotiations using tone and language suitable to audience</li> </ul>
Numeracy	1.1-1.5, 2.1, 2.3, 2.4	<ul style="list-style-type: none"> <li>Interprets numerical information to calculate all relevant financial information</li> </ul>
Navigate the world of work	1.2, 1.4	<ul style="list-style-type: none"> <li>Appreciates implications of legal and regulatory responsibilities related to own work</li> </ul>
Interact with others	1.7, 2.1	<ul style="list-style-type: none"> <li>Selects appropriate form, channel and mode of communication for a specific purpose relevant to own role</li> </ul>
Get the work done	1.1, 1.2, 1.4-1.6, 2.2, 2.4	<ul style="list-style-type: none"> <li>Develops plans to manage relatively complex, non-routine tasks with an awareness of how they may contribute to longer-term operational and strategic goals</li> <li>Makes a range of critical and non-critical decisions in relatively complex situations, taking a range of constraints into account</li> <li>Uses formal and informal processes to monitor implementation of ideas and reflect on outcomes</li> </ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
BSBSMB406 Manage small business finances Release 2	BSBSMB406 Manage small business finances Release 1	Updated to clarify intent	Equivalent unit

## Links

Companion Volume implementation guides are found in VETNet -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=11ef6853-ceed-4ba7-9d87-4da407e23c10>

# Assessment Requirements for BSBSMB406 Manage small business finances

## Modification History

Release	Comments
Release 2	This version released with BSB Business Services Training Package Version 2.0. Version created to clarify intent of unit
Release 1	This version first released with BSB Business Services Training Package Version 1.0.

## Performance Evidence

Evidence of the ability to:

- operate the business according to the business plan, including:
  - adhering to legal requirements
  - meeting requirements of financial backers
  - defining strategies for debt collection and contingencies for debtors
  - managing cash flow
  - defining key performance indicators
  - communicating with relevant people
- monitor the business against financial plan and make changes as required.

Note: If a specific volume or frequency is not stated, then evidence must be provided at least once.

## Knowledge Evidence

To complete the unit requirements safely and effectively, the individual must:

- discuss benchmarking
- explain financial decision-making relevant to the business
- summarise significant financial indicators
- outline purposes of financial reports
- clarify preparation and interpretation of budget/actual reports
- identify principles for preparing balance sheets and their interpretation
- outline debt collection procedures or strategies

- characterise principles for preparing profit and loss statements and their interpretation
- discuss stock records and stock control relevant to the business.

## Assessment Conditions

Assessment must be conducted in a safe environment where evidence gathered demonstrates consistent performance of typical activities experienced in the Management and Leadership – Small and Micro Business field of work and include access to:

- business equipment and resources
- relevant legislation, regulations, standards and codes
- relevant workplace documentation and resources
- case studies or where possible, real situations
- interaction with others.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volume implementation guides are found in VETNet -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=11ef6853-ceed-4ba7-9d87-4da407e23c10>



## BSBSMB407 Manage a small team

### Modification History

Release	Comments
Release 2	This version released with BSB Business Services Training Package Version 2.0. Version created to clarify intent of unit
Release 1	This version first released with BSB Business Services Training Package Version 1.0.

### Application

This unit describes the skills and knowledge required to select, induct, train and develop staff members to enhance business operations within the parameters of all relevant legislative requirements.

It applies to individuals who operate a small business that stands alone, or is part of a department within a larger organisation. Individuals in this role have a good knowledge of industrial relations and team management and use effective, responsive and supportive communication in workplace interactions.

No licensing, legislative or certification requirements apply to this unit at the time of publication.

### Unit Sector

Management and Leadership – Small and Micro Business

### Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Develop staffing plan	1.1 Determine staffing requirements to allow the business to run effectively, in accordance with requirements outlined in the

ELEMENT	PERFORMANCE CRITERIA
	<p>business plan</p> <p>1.2 Identify and compare existing skills of owner/s and staff with business requirements to identify any gaps</p> <p>1.3 Develop policies and procedures for owner/s and staff, in accordance with the business plan</p>
2. Recruit, induct, train and retain team	<p>2.1 Develop job or position descriptions, competencies required and selection criteria to meet business' needs</p> <p>2.2 Judge information obtained from each candidate against specified selection criteria, and select according to business needs and legal requirements</p> <p>2.3 Induct new staff members in accordance with policies and procedures of the business</p> <p>2.4 Make team members aware of their responsibilities and performance requirements as soon as practicable, and take opportunities to coach team members who are unfamiliar with procedures of the business</p> <p>2.5 Develop and implement a staff development program and career paths based on requirements of business and staff competencies</p> <p>2.6 Advertise staff vacancies appropriately in accordance with staffing plan</p>
3. Comply with industrial relations obligations	<p>3.1 Clarify workplace rights and obligations of employers and employees, in accordance with legal requirements and codes of practice</p> <p>3.2 Counsel staff, if required, in a positive and constructive manner and record outcomes accurately</p>
4. Maintain staff records	<p>4.1 Develop staff records system to provide timely and accurate information, in accordance with confidentiality, legal and taxation requirements</p> <p>4.2 Monitor and accurately maintain system for recording and retrieving personnel and payroll information, and seek specialist advice where required</p>
5. Manage staff	<p>5.1 Regularly review contribution and skills of self and other team members to ensure performance is in line with agreed performance measures</p> <p>5.2 Monitor and adjust staffing requirements to respond to any changes in tasks and functions required by the business</p> <p>5.3 Support and encourage staff, and acknowledge and reward</p>

ELEMENT	PERFORMANCE CRITERIA
	<p>their contribution</p> <p>5.4 Regularly provide opportunities for staff to discuss work related issues</p> <p>5.5 Develop contingency plans to cope with unexpected or extreme situations and take appropriate corrective action as required</p>
6. Review team performance	<p>6.1 Develop positive and constructive relationships with and between team members</p> <p>6.2 Review and update team objectives in support of business goals on a regular basis in consultation with team members</p> <p>6.3 Identify strengths and weaknesses of team against current and expected work requirements</p> <p>6.4 Schedule time, on a regular basis, for team members to review work operations to maintain and improve operational efficiency</p> <p>6.5 Encourage team members to monitor their own performance, suggest improvements and identify professional development needs, in accordance with personal and business requirements</p> <p>6.6 Monitor and review staff turnover rate</p>

## Foundation Skills

*This section describes language, literacy, numeracy and employment skills incorporated in the performance criteria that are required for competent performance.*

Skill	Performance Criteria	Description
Reading	1.1-1.3, 2.2, 2.3, 2.5, 2.6, 3.1, 4.1, 5.1, 6.3, 6.5, 6.6	<ul style="list-style-type: none"> <li>Evaluates complex text to determine legislative, regulatory and workplace documentation</li> </ul>
Writing	1.3, 2.1-2.6, 3.1, 3.2, 4.1, 4.2, 5.5, 6.1-6.3, 6.5	<ul style="list-style-type: none"> <li>Prepares written reports and workplace documentation that communicate complex information clearly and effectively</li> </ul>
Oral Communication	1.2, 2.2-2.4, 3.1, 3.2, 4.2, 5.3, 5.4, 6.1, 6.2, 6.4, 6.5	<ul style="list-style-type: none"> <li>Articulates clearly using specific and relevant language suitable to audience to convey requirements, and employs listening and questioning techniques to confirm understanding</li> <li>Participates in verbal negotiations and coaching using tone and language suitable to audience</li> </ul>

Numeracy	6.4	<ul style="list-style-type: none"> <li>Uses basic mathematical formulas to review staff performances within available work schedules</li> </ul>
Navigate the world of work	1.3, 2.2, 3.1, 4.1	<ul style="list-style-type: none"> <li>Understands own legal rights and responsibilities and is extending understanding of general legal principles across work contexts</li> <li>Monitors adherence to organisational policies and procedures and considers own role for its contribution to broader goals of the work environment</li> </ul>
Interact with others	2.4, 2.6, 5.3, 6.1, 6.5	<ul style="list-style-type: none"> <li>Collaborates with others to achieve joint outcomes, playing an active role in facilitating effective group interaction, influencing direction and taking a leadership role on occasion</li> <li>Looks for ways of establishing connections and building genuine understanding with a diverse range of people</li> <li>Actively identifies important communication exchanges, selecting appropriate channels, format, tone and context to suit purpose and audience, and monitors impact</li> </ul>
Get the work done	1.1, 1.2, 2.2, 2.3, 2.5, 4.2, 5.1, 5.2, 5.5, 6.3, 6.6	<ul style="list-style-type: none"> <li>Uses digital technologies and systems safely, legally and ethically when gathering, storing, accessing and sharing information</li> <li>Develops plans to manage relatively complex, non-routine tasks with an awareness of how they may contribute to longer-term operational and strategic goals</li> <li>Makes a range of critical and non-critical decisions in relatively complex situations, taking a range of constraints into account</li> <li>Uses formal and informal processes to monitor implementation of ideas and reflect on outcomes</li> <li>Recognises and anticipates an increasing range of familiar problems, their symptoms and causes, actively looking for early warning signs and implementing contingency plans</li> </ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
BSBSMB407 Manage a small team Release 2	BSBSMB407 Manage a small	Updated to clarify intent	Equivalent unit

<b>Code and title current version</b>	<b>Code and title previous version</b>	<b>Comments</b>	<b>Equivalence status</b>
	team Release 1		

## Links

Companion Volume implementation guides are found in VETNet -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=11ef6853-ceed-4ba7-9d87-4da407e23c10>

## Assessment Requirements for BSBSMB407 Manage a small team

### Modification History

Release	Comments
Release 2	This version released with BSB Business Services Training Package Version 2.0. Version created to clarify intent of unit
Release 1	This version first released with BSB Business Services Training Package Version 1.0.

### Performance Evidence

Evidence of the ability to:

- use the business plan to:
  - determine staffing requirements
  - coordinate skill-gap training where required
  - develop human resource policies and procedures
- develop job descriptions and selection criteria
- determine induction processes
- implement staff development program
- adhere to legal requirements and codes of practice
- develop staff records system
- conduct ongoing performance measures
- communicate effectively with staff members
- develop contingency plans
- develop strategies to review team performance
- monitor and review staff.

Note: If a specific volume or frequency is not stated, then evidence must be provided at least once.

### Knowledge Evidence

To complete the unit requirements safely and effectively, the individual must:

- discuss all government legislative requirements relating to staffing the business operation

- explain work health and safety (WHS) responsibilities and procedures for managing hazards
- summarise relevant industry awards or enterprise agreements
- outline staff development pathways
- identify training course options for staff development
- summarise staff counselling, grievance and disciplinary procedures
- identify unfair dismissal legislation and procedures.

## Assessment Conditions

Assessment must be conducted in a safe environment where evidence gathered demonstrates consistent performance of typical activities experienced in the Management and Leadership – Small and Micro Business field of work and include access to:

- business equipment and resources
- relevant legislation, regulations, standards and codes
- relevant workplace documentation and resources
- case studies or where possible, real situations
- interaction with others.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volume implementation guides are found in VETNet -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=11ef6853-ceed-4ba7-9d87-4da407e23c10>

# BSBSUS401 Implement and monitor environmentally sustainable work practices

## Modification History

Release	Comments
Release 1	<p>This version first released with BSB Business Services Training Package Version 2.0.</p> <p>Version created to better align unit to AQF level.</p>

## Application

This unit describes the skills and knowledge required to effectively analyse the workplace in relation to environmentally sustainable work practices and to implement improvements and monitor their effectiveness.

It applies to individuals with responsibility for a specific area of work or who lead a work group or team and addresses the knowledge, processes and techniques necessary to implement and monitor environmentally sustainable work practices, including the development of processes and tools.

No licensing, legislative or certification requirements apply to this unit at the time of publication.

## Unit Sector

Industry Capability – Sustainability

## Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Investigate current practices in relation to resource usage	<p>1.1 Identify environmental regulations applying to the enterprise</p> <p>1.2 Analyse procedures for assessing compliance with</p>



ELEMENT	PERFORMANCE CRITERIA
	<p>environmental/sustainability regulations</p> <p>1.3 Collect information on environmental and resource efficiency systems and procedures, and provide to the work group where appropriate</p> <p>1.4 Collect, analyse and organise information from a range of sources to provide information/advice and tools/resources for improvement opportunities</p> <p>1.5 Measure and document current resource usage of members of the work group</p> <p>1.6 Analyse and document current purchasing strategies</p> <p>1.7 Analyse current work processes to access information and data to assist in identifying areas for improvement</p>
2. Set targets for improvements	<p>2.1 Seek input from stakeholders, key personnel and specialists</p> <p>2.2 Access external sources of information and data as required</p> <p>2.3 Evaluate alternative solutions to workplace environmental issues</p> <p>2.4 Set efficiency targets</p>
3. Implement performance improvement strategies	<p>3.1 Source and use appropriate techniques and tools to assist in achieving efficiency targets</p> <p>3.2 Apply continuous improvement strategies to own work area of responsibility, including ideas and possible solutions to communicate to the work group and management</p> <p>3.3 Implement and integrate environmental and resource efficiency improvement plans for own work group with other operational activities</p> <p>3.4 Supervise and support team members to identify possible areas for improved practices and resource efficiency in work area</p> <p>3.5 Seek suggestions and ideas about environmental and resource efficiency management from stakeholders and act upon where appropriate</p> <p>3.6 Implement costing strategies to fully utilise environmental assets</p>
4. Monitor performance	<p>4.1 Use and/or develop evaluation and monitoring, tools and technology</p> <p>4.2 Document and communicate outcomes to report on efficiency targets to key personnel and stakeholders</p> <p>4.3 Evaluate strategies and improvement plans</p> <p>4.4 Set new efficiency targets, and investigate and apply new tools</p>

ELEMENT	PERFORMANCE CRITERIA
	and strategies 4.5 Promote successful strategies and reward participants where possible

## Foundation Skills

*This section describes language, literacy, numeracy and employment skills incorporated in the performance criteria that are required for competent performance.*

Skill	Performance Criteria	Description
Reading	1.1-1.4, 1.6, 1.7, 2.3, 3.1	<ul style="list-style-type: none"> <li>Identifies and analyses complex texts to determine legislative, regulatory and business requirements</li> <li>Reviews reported information to evaluate workplace strategies and improvement practices</li> </ul>
Writing	1.5, 1.6, 2.1, 2.2, 2.4, 3.1-3.3, 4.4, 4.5	<ul style="list-style-type: none"> <li>Documents findings of investigations from written and oral sources according to organisational requirements</li> <li>Provides updates about progress using formats and language appropriate to the audience and context</li> </ul>
Oral Communication	2.1, 2.2, 3.3-3.5, 4.4, 4.5	<ul style="list-style-type: none"> <li>Presents information and seeks advice using structure and language appropriate to audience</li> <li>Participates in discussions using listening and questioning to elicit the views of others and to clarify or confirm understanding</li> </ul>
Numeracy	1.5, 2.4, 3.1, 3.6, 4.4	<ul style="list-style-type: none"> <li>Analyses numerical information to measure usage and calculates metric measurements, quantities/ratios and financial data using appropriate tools</li> </ul>
Navigate the world of work	1.1, 1.2	<ul style="list-style-type: none"> <li>Recognises and follows legislative requirements and organisational policies and procedures associated with own role</li> </ul>
Interact with others	1.3, 2.1, 2.2, 3.3-3.5, 4.2, 4.4, 4.5	<ul style="list-style-type: none"> <li>Selects and uses appropriate conventions and protocols when communicating with internal and external stakeholders to seek or share information</li> <li>Collaborates and consults with a range of stakeholders to achieve shared understanding of individual roles in meeting objectives</li> </ul>
Get the work done	1.2, 1.4-1.7, 2.3, 2.4, 3.1, 3.2, 3.3, 3.5, 3.6, 4.1, 4.3, 4.4	<ul style="list-style-type: none"> <li>Develops plans to manage routine and non-routine tasks for own work group with an awareness of how they contribute to the broader organisation</li> <li>Uses systematic, analytical processes to set</li> </ul>

		environmental targets, gather relevant information, identify and evaluate alternative approaches <ul style="list-style-type: none"> <li>• Evaluates outcomes of decisions to identify opportunities for improvement</li> <li>• Uses the main features and functions of digital tools to complete work tasks and access information</li> </ul>
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## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
BSBSUS401 Implement and monitor environmentally sustainable work practices	BSBSUS301 Implement and monitor environmentally sustainable work practices	Recoded to meet AQF standards	Equivalent unit

## Links

Companion Volume implementation guides are found in VETNet -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=11ef6853-ceed-4ba7-9d87-4da407e23c10>

## Assessment Requirements for BSBSUS401 Implement and monitor environmentally sustainable work practices

### Modification History

Release	Comments
Release 1	This version first released with BSB Business Services Training Package Version 2.0.  Version created to better align unit to AQF level.

### Performance Evidence

Evidence of the ability to:

- analyse information from a range of sources to identify current procedures, practices and compliance requirements in relation to environmental and resource sustainability
- consult and communicate with relevant stakeholders to seek input and encourage engagement with developing and implementing sustainability improvements, encourage feedback and suggestions and report on outcomes
- plan and organise work group activities to:
  - measure current resource usage
  - solve problems and generate ideas for improvements
  - evaluate and implement strategies to improve resource usage
  - plan, implement and integrate improvements into operations
  - meet environmental requirements
- apply continuous improvement approach to sustainability performance
- apply change management techniques to support sustainability performance.

Note: If a specific volume or frequency is not stated, then evidence must be provided at least once.

### Knowledge Evidence

To complete the unit requirements safely and effectively, the individual must:

- identify relevant internal and external sources of information and explain how they can be used to identify sustainability improvements

- explain the compliance requirements for the work area with reference to legislation, regulations, codes of practice and workplace procedures that relate to environmental and resource issues
- outline common environmental and energy efficiency issues within the industry
- give examples of benchmarks for environmental and resource sustainability that are relevant to the organisation
- outline organisational systems and procedures that relate to environmental and resource sustainability improvements including:
  - supply chain, procurement and purchasing
  - quality assurance
  - making recommendations and seeking approvals

## Assessment Conditions

Assessment must be conducted in a safe environment where evidence gathered demonstrates consistent performance of typical activities experienced in the sustainability field of work and include access to:

- relevant legislation, regulations, standards and codes
- relevant workplace documentation and resources
- case studies or, where possible, real situations
- interaction with others.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=11ef6853-ceed-4ba7-9d87-4da407e23c10>

# BSBWHS201 Contribute to health and safety of self and others

## Modification History

Release	Comments
Release 1	This version first released with BSB Business Services Training Package Version 1.0.

## Application

This unit describes the skills and knowledge required to work in a manner that is healthy and safe in relation to self and others and to respond to emergency incidents. It covers following work health and safety (WHS) and emergency procedures and instructions, implementing WHS requirements and participating in WHS consultative processes.

It applies to individuals who require a basic knowledge of WHS to carry out work in a defined context under direct supervision or with some individual responsibility, in a range of industry and workplace contexts.

NOTE: The terms 'occupational health and safety' (OHS) and 'work health and safety' (WHS) are equivalent and generally either can be used in the workplace. In jurisdictions where the Model WHS Act has not been implemented RTOs are advised to contextualise the unit of competency by referring to the existing State/Territory OHS legislative requirements.

No licensing, legislative or certification requirements apply to this unit at the time of publication.

## Unit Sector

Regulation, Licensing and Risk – Work Health and Safety

## Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Work safely	1.1 Follow provided safety procedures and instructions when

ELEMENT	PERFORMANCE CRITERIA
	<p>working</p> <p>1.2 Carry out pre start systems and equipment checks according to workplace procedures</p> <p>1.3 Follow workplace procedures for responding to emergency incidents</p>
2. Implement work safety requirements	<p>2.1 Identify designated persons to whom queries and concerns about safety in the workplace should be directed</p> <p>2.2 Identify existing and potential hazards in the workplace, report them to designated persons and record them according to workplace procedures</p> <p>2.3 Identify and implement WHS procedures and work instructions</p> <p>2.4 Identify and report emergency incidents and injuries to designated persons according to workplace procedures</p> <p>2.5 Identify WHS duty holders and their duties for own work area</p>
3. Participate in WHS consultative processes	<p>3.1 Contribute to workplace meetings, inspections and other WHS consultative activities</p> <p>3.2 Raise WHS issues with designated persons according to organisational procedures</p> <p>3.3 Take actions to eliminate workplace hazards and reduce risks</p>

## Foundation Skills

This section describes language, literacy, numeracy and employment skills incorporated in the performance criteria that are required for competent performance.

Skill	Performance Criteria	Description
Reading	1.1, 1.2, 1.3, 2.1, 2.3, 2.4, 2.5	<ul style="list-style-type: none"> <li>Identifies and interprets information in relation to WHS and emergency incidents</li> </ul>
Writing	1.2, 2.2, 2.4, 3.2	<ul style="list-style-type: none"> <li>Uses structures and language appropriate to audience and context in reports giving factual information</li> </ul>
Oral Communication	2.2, 2.3, 2.4, 3.1, 3.2	<ul style="list-style-type: none"> <li>Uses structures and language appropriate to audience and context in reports, descriptions, opinions and explanations</li> <li>Extracts meaning from reports,</li> </ul>

		descriptions, opinions and explanations
Navigate the world of work	1.1, 1.2, 1.3, 2.1,2.2, 2.3, 2.4, 2.5, 3.1, 3.2, 3.3	<ul style="list-style-type: none"> <li>• Takes responsibility for following WHS legal requirements</li> <li>• Follows protocols and procedures related to own role</li> <li>• Seeks assistance from others when WHS issues are beyond scope of immediate responsibilities</li> </ul>
Get the work done	1.1, 1.2, 1.3, 2.2, 2.3, 2.4, 3.1, 3.3	<ul style="list-style-type: none"> <li>• Plans, organises and implements routine tasks in order to optimise health and safety</li> <li>• Selects and implements actions from predetermined procedures</li> </ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
BSBWHS201 Contribute to health and safety of self and others	BSBWHS201A Contribute to health and safety of self and others	<p>Updated to meet Standards for Training Packages</p> <p>Minor edits to clarify intent of performance criteria</p>	Equivalent unit

## Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=11ef6853-ceed-4ba7-9d87-4da407e23c10>



# Assessment Requirements for BSBWHS201 Contribute to health and safety of self and others

## Modification History

Release	Comments
Release 1	This version first released with BSB Business Services Training Package Version 1.0.

## Performance Evidence

Evidence of the ability to:

- follow all relevant procedures and instructions relating to work health and safety (WHS) and emergency incidents
- identify and report hazards to designated personnel
- contribute to WHS consultative processes.

Note: If a specific volume or frequency is not stated, then evidence must be provided at least once.

## Knowledge Evidence

To complete the unit requirements safely and effectively, the individual must:

- explain workplace safety procedures and instructions including:
  - checking systems and equipment
  - conducting routine work operations
  - requirements for personal protective equipment (PPE)
  - how to report incidents and injuries
- explain emergency procedures including those for fires and incidents
- define the meaning of commonly used hazard signs and safety symbols
- summarise the duty holder responsibilities, as specified in WHS Acts, regulations and codes of practice, of:
  - self and fellow workers
  - persons conducting businesses or undertakings (PCBUs)
  - officers
  - others in the workplace
- explain the difference between hazards and risks

- describe typical WHS hazards that may be present in the workplace, the harm they can cause and how this harm occurs
- outline the process of hazard identification and risk reduction.

## Assessment Conditions

Assessment must be conducted in a safe environment where evidence gathered demonstrates consistent performance of typical activities experienced by individuals carrying out work health and safety duties in the workplace and include access to:

- relevant organisational policies, standard operating procedures and work instructions
- relevant Acts, regulations, codes of practice
- workplace tools, equipment and resources
- personal protective equipment appropriate to the role and work area.

Assessors must satisfy NVR/AQTF assessor requirements.

## Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=11ef6853-ceed-4ba7-9d87-4da407e23c10>

## BSBWHS301 Maintain workplace safety

### Modification History

Release	Comments
Release 1	This version first released with BSB Business Services Training Package Version 1.0.

### Application

This unit describes the skills and knowledge required to implement and monitor the organisation's work health and safety (WHS) policies, procedures and programs as part of a small work team.

The unit applies to individuals who have a key role in maintaining workplace safety in an organisation. In their role they closely monitor aspects of work associated with the safe delivery of products and services, and they have a responsibility for influencing safety in the workplace.

NOTE: The terms 'occupational health and safety' (OHS) and 'work health and safety' (WHS) are equivalent and generally either can be used in the workplace. In jurisdictions where the Model WHS Legislation has not been implemented RTOs are advised to contextualise the unit of competency by referring to the existing State/Territory OHS legislative requirements.

No licensing, legislative or certification requirements apply to this unit at the time of publication.

### Unit Sector

Regulation, Licensing and Risk – Work Health and Safety

### Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Assist with	1.1 Use WHS legislation as the basis for meeting the health and

ELEMENT	PERFORMANCE CRITERIA
incorporating WHS policies and procedures into work team processes	<p>safety requirements of a small work team</p> <p>1.2 Assist in providing and clearly explaining information to the work team about the organisation's WHS policies, procedures, programs and legislative requirements</p> <p>1.3 Assist in regularly providing and clearly explaining information to the work team about identifying hazards and risk assessment outcomes</p>
2. Support participative arrangements for managing WHS	<p>2.1 Implement and monitor organisational consultative procedures to facilitate participation of the work team in managing work area WHS</p> <p>2.2 Deal promptly with issues raised through consultation according to organisational procedures for issue resolution</p> <p>2.3 Encourage and assist work team members to contribute to managing WHS</p> <p>2.4 Engage with individuals and work teams to identify and implement improvements in managing WHS feedback</p>
3. Support the organisation's procedures for providing WHS training	<p>3.1 Provide advice on WHS training needs of individuals and the work team</p> <p>3.2 Provide advice on strategies and opportunities for developing work team's WHS competence</p> <p>3.3 Provide coaching and mentoring assistance to work team members to support the effective development of individual and team WHS competence</p>
4. Participate in identifying hazards, and assessing and controlling risks for the work area	<p>4.1 Provide advice on hazards in the work area according to organisational policies and procedures, and WHS legal requirements</p> <p>4.2 Support the implementation of procedures to control risks using the hierarchy of control and according to organisational procedures and WHS legal requirements</p> <p>4.3 Identify and report inadequacies in existing risk control measures according to organisational procedures, the hierarchy of control and WHS legal requirements</p> <p>4.4 Accurately complete and maintain WHS incident records in the work area according to organisational procedures and WHS legislative requirements</p>

## Foundation Skills

*This section describes language, literacy, numeracy and employment skills incorporated in the performance criteria that are required for competent performance.*

Skill	Performance Criteria	Description
Reading	1.1, 1.2, 1.3	<ul style="list-style-type: none"><li>• Interprets and analyses legislative and organisational documentation</li><li>• Applies appropriate strategies to construct meaning from legislative and organisational documentation</li></ul>
Writing	1.2, 1.3, 4.3, 4.4	<ul style="list-style-type: none"><li>• Documents WHS information using required format and industry specific vocabulary</li></ul>
Oral communication	1.2, 1.3, 3.3	<ul style="list-style-type: none"><li>• Presents information using language appropriate to audience</li><li>• Uses questioning and active listening to confirm understanding</li></ul>
Navigate the world of work	1.1, 1.2, 2.2, 4.1, 4.2, 4.3	<ul style="list-style-type: none"><li>• Follows policies, procedures and legislative requirements relevant to own role</li><li>• Keeps up to date on changes to legislation or regulations relevant to own role</li></ul>
Interact with others	2.1, 2.2, 2.3, 2.4, 3.1, 3.2, 3.3, 4.1, 4.3, 4.4	<ul style="list-style-type: none"><li>• Selects appropriate communication protocols and conventions to provide information to others</li><li>• Collaborates with others to achieve joint outcomes, playing an active role in facilitating effective group interaction, influencing direction and taking a leadership role on occasion</li><li>• Beginning to provide feedback to others in forms they can engage with and respond to in the context of encouraging participative contributions</li></ul>
Get the work done	2.1, 2.2, 2.3, 2.4, 3.1, 3.2, 3.3, 4.1, 4.2, 4.3, 4.4	<ul style="list-style-type: none"><li>• Sequences and schedules activities, monitors implementation and manages relevant communication</li><li>• Initiates standard procedures when responding to issues raised through consultation</li><li>• Uses feedback to identify and implement opportunities improve arrangements for managing WHS issues to improvement</li></ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
BSBWHS301 Maintain workplace safety	BSBWHS301A Maintain workplace safety	Updated to meet Standards for Training Packages  Minor edits to clarify intent of performance criteria	Equivalent unit

## Links

Companion Volume implementation guides are found in VETNet -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=11ef6853-ceed-4ba7-9d87-4da407e23c10>

# Assessment Requirements for BSBWHS301 Maintain workplace safety

## Modification History

Release	Comments
Release 1	This version first released with BSB Business Services Training Package Version 1.0.

## Performance Evidence

Evidence of the ability to:

- implement and monitor the organisation's work health and safety (WHS) policies and procedures
- identify hazards and assess and control risks
- assist in explaining and improving WHS policies, procedures and legislative requirements applicable to the organisation
- assist in explaining hazards identification and risk assessment outcomes to other team members
- implement and monitor consultation about WHS according to legislative and organisational requirements
- deal promptly with issues raised as a result of WHS consultation
- encourage work team to contribute to identifying and implementing improvements to WHS feedback
- assist others to develop WHS competence and provide advice on training needs
- complete WHS documentation.

Note: If a specific volume or frequency is not stated, then evidence must be provided at least once.

## Knowledge Evidence

To complete the unit requirements safely and effectively, the individual must:

- describe characteristics and composition of the work team
- describe procedures for identifying hazards and assessing and controlling associated risks to health and safety, including the hierarchy of control
- outline organisational WHS policies and procedures including those relating to risk management, fire, emergencies, evacuation, incident investigation and reporting

- describe relevant Acts, regulations and codes of practice from all levels of government that impact on business operations, especially with regard to WHS and environmental issues, equal opportunity, industrial relations and anti-discrimination
- identify WHS aspects of other organisational systems and procedures.

## Assessment Conditions

Assessment must be conducted in a safe environment where evidence gathered demonstrates consistent performance of typical activities experienced by individuals carrying out work health and safety duties in the workplace and include access to:

- safety processes relevant to the area of work
- organisational policies and procedures, standard operating procedures and plans
- WHS Acts, regulations, codes of practice, licensing requirements and standards
- appropriate office equipment and resources used in the identification and rectification of WHS compliance breaches.

Assessors must satisfy NVR/AQTF assessor requirements.

## Links

Companion Volume implementation guides are found in VETNet -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=11ef6853-ceed-4ba7-9d87-4da407e23c10>



## BSBWHS401 Implement and monitor WHS policies, procedures and programs to meet legislative requirements

### Modification History

Release	Comments
Release 1	This version first released with BSB Business Services Training Package release 1.0

### Application

This unit describes the skills and knowledge required to implement and monitor an organisation's work health and safety (WHS) policies, procedures and programs in the relevant work area in order to meet legislative requirements.

It applies to individuals with supervisory responsibilities for implementing and monitoring the organisation's WHS policies, procedures and programs in a work area. These individuals have a broad knowledge of WHS policies and contribute well developed skills in creating solutions to unpredictable problems through analysis and evaluation of information from a variety of sources. They provide supervision and guidance to others and have limited responsibility for the output of others.

NOTE: The terms 'occupational health and safety' (OHS) and 'work health and safety' (WHS) are equivalent and generally either can be used in the workplace. In jurisdictions where the Model WHS Legislation has not been implemented RTOs are advised to contextualise the unit of competency by referring to the existing State/Territory OHS legislative requirements.

No licensing, legislative or certification requirements apply to this unit at the time of publication.

### Unit Sector

Regulation, Licensing and Risk – Work Health and Safety

### Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
<i>Elements describe the</i>	<i>Performance criteria describe the performance needed to</i>

ELEMENT	PERFORMANCE CRITERIA
<i>essential outcomes.</i>	<i>demonstrate achievement of the element.</i>
1. Provide information to the work team about WHS policies and procedures	<p>1.1 Accurately explain to the work team relevant provisions of WHS Acts, regulations and codes of practice</p> <p>1.2 Provide information about the organisation's WHS policies, procedures and programs, and ensure it is readily accessible to, and understandable by the work team</p> <p>1.3 Regularly provide and clearly explain to the work team information about identified hazards and the outcomes of risk assessment and control</p>
2. Implement and monitor participation arrangements for managing WHS	<p>2.1 Communicate to workplace parties the importance of effective consultation mechanisms in managing health and safety risks in the workplace</p> <p>2.2 Apply consultation procedures to facilitate participation of the work team in managing work area hazards</p> <p>2.3 Promptly deal with issues raised through consultation, according to organisational consultation procedures and WHS legislative and regulatory requirements</p> <p>2.4 Promptly record and communicate to the work team the outcomes of consultation over WHS issues</p>
3. Implement and monitor organisational procedures for providing WHS training	<p>3.1 Identify WHS training needs according to organisational requirements and WHS legislative and regulatory requirements</p> <p>3.2 Make arrangements to meet WHS training needs of team members in consultation with relevant individuals</p> <p>3.3 Provide workplace learning opportunities and coaching and mentoring assistance to facilitate team and individual achievement of identified WHS training needs</p> <p>3.4 Identify and report to management the costs associated with providing training for work team, for inclusion in financial and management plans</p>
4. Implement and monitor organisational procedures and legal requirements for identifying hazards and assessing and controlling risks	<p>4.1 Identify and report on hazards in work area according to WHS policies and procedures and WHS legislative and regulatory requirements</p> <p>4.2 Promptly action team member hazard reports according to organisational procedures and WHS legislative and regulatory requirements</p> <p>4.3 Implement procedures to control risks using the hierarchy of control, according to organisational and WHS legislative requirements</p>

ELEMENT	PERFORMANCE CRITERIA
	<p>4.4 Identify and report inadequacies in existing risk controls according to hierarchy of control and WHS legislative requirements</p> <p>4.5 Monitor outcomes of reports on inadequacies, where appropriate, to ensure a prompt organisational response</p>
5. Implement and monitor organisational procedures for maintaining WHS records for the team	<p>5.1 Accurately complete and maintain WHS records of incidents of occupational injury and disease in work area, according to WHS policies, procedures and legislative requirements</p> <p>5.2 Use aggregate information and data from work area records to identify hazards and monitor risk control procedures in work area</p>

## Foundation Skills

*This section describes language, literacy, numeracy and employment skills incorporated in the performance criteria that are required for competent performance.*

Skill	Performance Criteria	Description
Reading	1.1-1.3, 5.2	<ul style="list-style-type: none"> <li>Interprets and analyses complex WHS legislative and organisational texts</li> </ul>
Writing	1.1-1.3, 2.3, 2.4, 3.1, 3.2, 3.4, 4.1, 4.4, 5.1	<ul style="list-style-type: none"> <li>Documents WHS legislative and organisational information using structure, layout and language suitable for audience</li> <li>Records WHS issues and actions taken according to reporting requirements</li> <li>Prepares and maintains required records using appropriate structure and vocabulary</li> </ul>
Oral communication	1.1-1.3, 2.1, 2.4, 3.2, 3.3, 4.1, 4.4	<ul style="list-style-type: none"> <li>Provides WHS legislative and organisational information and advice using structure and language suitable for audience</li> </ul>
Numeracy	3.4, 5.2	<ul style="list-style-type: none"> <li>Extracts, interprets and comprehends mathematical information in relation to training costs and risk management data</li> </ul>
Navigate the world of work	1.1,1.2, 2.3, 3.1, 4.1-4.5, 5.1	<ul style="list-style-type: none"> <li>Takes responsibility for adherence to legal and regulatory responsibilities and organisational policies and procedures in relation to WHS</li> <li>Keeps up to date on changes to WHS legislation or regulations and organisational policies and procedures</li> </ul>
Interact with	2.2, 3.2, 3.3	<ul style="list-style-type: none"> <li>Selects and uses appropriate conventions and protocols to facilitate consultation or provide feedback</li> </ul>

others		<ul style="list-style-type: none"> <li>Initiates and contributes to facilitating consultative role, responding, explaining, clarifying and expanding on ideas and information as required</li> <li>Collaborates with others to achieve individual and team outcomes</li> </ul>
Get the work done	2.2, 3.2, 3.3, 4.1-4.5, 5.1	<ul style="list-style-type: none"> <li>Uses combination of formal, logical planning and intuitive understanding of context to identify relevant information and risks, and identify and evaluate alternative strategies</li> <li>Uses formal decision-making processes, setting or clarifying goals, gathering information and identifying and evaluating choices against a set of criteria</li> <li>Recognises and takes responsibility for reporting WHS risk control inadequacies</li> <li>Uses formal and informal processes to monitor implementations of WHS solutions and reflect on outcomes</li> </ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
BSBWHS401 Implement and monitor WHS policies, procedures and programs to meet legislative requirements	BSBWHS401A Implement and monitor WHS policies, procedures and programs to meet legislative requirements	<p>Updated to meet Standards for Training Packages</p> <p>Minor edits to clarify intent of performance criteria</p>	Equivalent unit

## Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=11ef6853-ceed-4ba7-9d87-4da407e23c10>

# Assessment Requirements for BSBWHS401 Implement and monitor WHS policies, procedures and programs to meet legislative requirements

## Modification History

Release	Comments
Release 1	This version first released with BSB Business Services Training Package Version 1.0.

## Performance Evidence

Evidence of the ability to:

- explain clearly and accurately to work team the relevant work health and safety (WHS) information including:
  - WHS legislative and organisational requirements
  - identified hazards and outcomes of risk assessment and control
- ensure that the team has access to information about WHS policies, procedures and programs in appropriate structure and language
- implement and monitor procedures according to organisational and legislative WHS requirements including:
  - consultation and communications to enable team members to participate in managing WHS risks and hazards
  - identifying WHS training needs and providing learning opportunities, coaching and mentoring as appropriate to needs
  - identifying, reporting and taking action on WHS hazards and risks
  - identifying and reporting inadequacies in existing risk controls and monitoring outcomes to ensure a prompt organisational response
  - reporting on the cost of WHS training
  - keeping WHS records
  - analysing aggregate WHS data to identify hazards and monitor risk control procedures in work area.

Note: If a specific volume or frequency is not stated, then evidence must be provided at least once.

## Knowledge Evidence

To complete the unit requirements safely and effectively, the individual must:

- outline the legal responsibilities and duties of managers, supervisors, persons conducting businesses or undertakings (PCBUs) and workers in relation to WHS risk management in the workplace
- identify key provisions of relevant WHS Acts, regulations and codes of practice that apply to the business and outline how they apply in the work area
- explain organisational policies and procedures relating to hazard identification, risk management, fire, emergency and evacuation, incident investigation and reporting
- explain the importance of effective consultation mechanisms in managing health and safety risks in the workplace
- explain how the hierarchy of control applies in the work area.

## Assessment Conditions

Assessment must be conducted in a safe environment where evidence gathered demonstrates consistent performance of typical activities experienced by individuals carrying out work health and safety duties in the workplace and include access to:

- an actual workplace or simulated environment
- workplace equipment and resources
- examples of documents relating to workplace safety, hazard identification and risk assessment
- interaction with others.

Assessors must satisfy NVR/AQTF assessor requirements.

## Links

Companion Volume implementation guides are found in VETNet -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=11ef6853-ceed-4ba7-9d87-4da407e23c10>

## BSBWOR203 Work effectively with others

### Modification History

Release	Comments
Release 2	This version first released with BSB Business Services Training Package Version 1.1. Version created to correct mapping table information
Release 1	This version first released with BSB Business Services Training Package Version 1.0.

### Application

This unit describes the skills and knowledge required to work cooperatively with others and deal effectively with issues, problems and conflict.

It applies to individuals who perform a range of routine tasks using a limited range of practical skills, and a fundamental knowledge of teamwork in a defined context under direct supervision or with limited individual responsibility.

No licensing, legislative, regulatory or certification requirements apply to this unit at the time of publication.

### Unit Sector

Industry Capability – Workplace Effectiveness

### Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Develop effective workplace relationships	1.1 Identify own responsibilities and duties in relation to workgroup members and undertake activities in a manner that promotes cooperation and good relationships 1.2 Take time and resource constraints into account in fulfilling

ELEMENT	PERFORMANCE CRITERIA
	work requirements of self and others 1.3 Encourage, acknowledge and act on constructive feedback provided by others in the workgroup
2. Contribute to workgroup activities	2.1 Provide support to team members to ensure workgroup goals are met 2.2 Contribute constructively to workgroup goals and tasks according to organisational requirements 2.3 Share information relevant to work with workgroup to ensure designated goals are met 2.4 Identify and plan strategies/opportunities for improvement of workgroup in liaison with workgroup
3. Deal effectively with issues, problems and conflict	3.1 Respect differences in personal values and beliefs and their importance in the development of relationships 3.2 Identify any linguistic and cultural differences in communication styles and respond appropriately 3.3 Identify issues, problems and conflict encountered in the workplace 3.4 Seek assistance from workgroup members when issues, problems and conflict arise and suggest possible ways of dealing with them as appropriate or refer them to the appropriate person

## Foundation Skills

*This section describes language, literacy, numeracy and employment skills incorporated in the performance criteria that are required for competent performance.*

Skill	Performance Criteria	Description
Reading	1.1	<ul style="list-style-type: none"> <li>Identifies and interprets information to determine task requirements</li> </ul>
Writing	2.3, 2.4	<ul style="list-style-type: none"> <li>Completes required documentation using organisational formats</li> <li>Composes simple documents for others to read</li> </ul>
Oral Communication	1.3, 3.2, 3.4	<ul style="list-style-type: none"> <li>Presents information and seeks advice using language and features appropriate to audience</li> <li>Participates in discussions using listening and questioning to elicit views of others and to clarify or</li> </ul>



		confirm understanding
Numeracy	1.2	<ul style="list-style-type: none"> <li>Interprets information related to timeframes and resource quantities</li> </ul>
Navigate the world of work	1.1, 2.2	<ul style="list-style-type: none"> <li>Understands responsibilities of own role and follows explicit and implicit organisational protocols and procedures</li> </ul>
Interact with others	1.1, 1.3, 2.1-2.4, 3.1, 3.2, 3.4	<ul style="list-style-type: none"> <li>Selects and uses appropriate communication practices when seeking or sharing information Establishes and builds rapport and relationships with others to foster a culture of respect and cooperation in communications</li> </ul>
Get the work done	1.2, 2.4, 3.3, 3.4	<ul style="list-style-type: none"> <li>Plans and organises work commitments to ensure deadlines and objectives are met</li> <li>Uses formal analytical thinking techniques to recognise and respond to routine problems</li> </ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
BSBWOR203 Work effectively with others	BSBWOR203B Work effectively with others	Updated to meet Standards for Training Packages	Equivalent unit

## Links

Companion Volume implementation guides are found in VETNet -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=11ef6853-ceed-4ba7-9d87-4da407e23c10>

# Assessment Requirements for BSBWOR203 Work effectively with others

## Modification History

Release	Comments
Release 2	This version first released with BSB Business Services Training Package Version 1.1. Version created to correct mapping table information
Release 1	This version first released with BSB Business Services Training Package Version 1.0.

## Performance Evidence

Evidence of the ability to:

- identify own responsibilities in relation to the team and the organisation's requirements
- work effectively in a workgroup including:
  - supporting team members
  - using culturally appropriate communication skills
  - acting on constructive feedback
  - cooperating and contributing to team goals
  - identifying improvement opportunities
- identify problems and conflicts and address them appropriately.

Note: If a specific volume or frequency is not stated, then evidence must be provided at least once.

## Knowledge Evidence

To complete the unit requirements safely and effectively, the individual must:

- outline the organisational standards, policies and procedures that relate to own work role
- outline team responsibilities and duties and their relationship to individual responsibilities and duties.
- summarise conflict resolution techniques.

## Assessment Conditions

Assessment must be conducted in a safe environment where evidence gathered demonstrates consistent performance of typical activities experienced in the industry capability – workplace effectiveness field of work and include access to:

- office equipment and resources
- workplace documentation
- case studies and, where possible, real situations
- interaction with others.

Assessors must satisfy NVR/AQTF assessor requirements.

## Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=11ef6853-ceed-4ba7-9d87-4da407e23c10>

## BSBWOR204 Use business technology

### Modification History

Release	Comments
Release 1	This version first released with BSB Business Services Training Package Version 1.0.

### Application

This unit describes the skills and knowledge required to select and use computer software and organise electronic information and data.

It applies to individuals who apply a limited range of practical skills with a fundamental knowledge of equipment use and the organisation of data in a defined context, under direct supervision or with limited individual responsibility.

No licensing, legislative, regulatory or certification requirements apply to this unit at the time of publication.

### Unit Sector

Industry Capability – Workplace Effectiveness

### Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Select and use technology	1.1 Select appropriate technology and software applications to achieve requirements of the task 1.2 Adjust workspace, furniture and equipment to suit user's ergonomic requirements 1.3 Use technology according to organisational requirements and in a way that promotes a safe work environment
2. Process and organise	2.1 Identify, open, generate or amend files and records according

ELEMENT	PERFORMANCE CRITERIA
data	<p>to task and organisational requirements</p> <p>2.2 Operate input devices according to organisational requirements</p> <p>2.3 Store data appropriately and exit applications without damage to or loss of, data</p> <p>2.4 Use manuals, training booklets and/or online help or helpdesks to overcome basic difficulties with applications</p>
3. Maintain technology	<p>3.1 Identify and replace used technology consumables in accordance with manufacturer's instructions and organisational requirements</p> <p>3.2 Carry out and/or arrange routine maintenance to ensure equipment is maintained in accordance with manufacturer's instructions and organisational requirements</p> <p>3.3 Identify equipment faults accurately and take action in accordance with manufacturer's instructions or report fault to designated person</p>

## Foundation Skills

*This section describes language, literacy, numeracy and employment skills incorporated in the performance criteria that are required for competent performance.*

Skill	Performance Criteria	Description
Reading	1.3, 2.1, 2.2, 2.4, 3.1-3.3	<ul style="list-style-type: none"> <li>Recognises and interprets information from familiar sources to determine job role and task requirements</li> </ul>
Writing	2.1, 2.3, 3.2, 3.3	<ul style="list-style-type: none"> <li>Produces and amends files to meet task and organisational requirements</li> <li>Completes required documentation using organisational formats</li> </ul>
Oral Communication	3.3	<ul style="list-style-type: none"> <li>Uses specific and relevant language to refer faults to others</li> </ul>
Navigate the world of work	1.2, 1.3, 2.1, 2.2, 3.1-3.3	<ul style="list-style-type: none"> <li>Recognises and follows legislative requirements and organisational policies and procedures associated with own role</li> </ul>
Get the work done	1.1, 1.3, 2.1-2.4, 3.1-3.3	<ul style="list-style-type: none"> <li>Uses business technologies and systems safely, when gathering, storing, accessing and sharing information</li> <li>Understands purposes, specific functions and key</li> </ul>

		<p>features of common digital systems and business tools</p> <ul style="list-style-type: none"><li>• Operates digital systems and business tools effectively to complete routine tasks using some basic troubleshooting strategies as required</li></ul>
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## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
BSBWOR204 Use business technology	BSBWOR204A Use business technology	Updated to meet Standards for Training Packages	Equivalent unit

## Links

Companion Volume implementation guides are found in VETNet -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=11ef6853-ceed-4ba7-9d87-4da407e23c10>

# Assessment Requirements for BSBWOR204 Use business technology

## Modification History

Release	Comments
Release 1	This version first released with BSB Business Services Training Package Version 1.0.

## Performance Evidence

Evidence of the ability to:

- select and use technology safely and according to organisational requirements
- access, retrieve and store required data
- demonstrate basic maintenance on a range of equipment using manuals or help-files
- identify and address faults according to requirements.

Note: If a specific volume or frequency is not stated, then evidence must be provided at least once.

## Knowledge Evidence

To complete the unit requirements safely and effectively, the individual must:

- outline the organisation's work health and safety requirements
- outline the organisation's requirements for file naming and storage
- explain why regular back-ups of data are done
- list 'routine maintenance' tasks
- summarise the procedure for addressing equipment faults.

## Assessment Conditions

Assessment must be conducted in a safe environment where evidence gathered demonstrates consistent performance of typical activities experienced in the industry capability – workplace effectiveness field of work and include access to:

- office equipment and resources
- electronic files and data
- workplace documentation and equipment manuals
- case studies and, where possible, real situations

- interaction with others.

Assessors must satisfy NVR/AQTF assessor requirements.

## Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=11ef6853-ceed-4ba7-9d87-4da407e23c10>



## BSBWOR403 Manage stress in the workplace

### Modification History

Release	Comments
Release 1	This version first released with BSB Business Services Training Package Version 1.0.

### Application

This unit describes the skills and knowledge required to identify signs and sources of stress within job roles and according to key performance indicators (KPIs). Management strategies to aid recovery from stressful situations are also essential.

It applies to individuals who work at a managerial level, have excellent communication skills and apply knowledge of organisational policies, occupational health and safety (OHS) and other relevant legislation.

No licensing, legislative, regulatory or certification requirements apply to this unit at the time of publication.

### Unit Sector

Industry Capability – Workplace Effectiveness

### Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Develop and implement personal stress management strategy	1.1 Recognise signs and sources of stress 1.2 Use appropriate techniques to manage own stress 1.3 Maintain personal stamina and resilience 1.4 Maintain personal work/life balance 1.5 Become a role model in managing stress and time
2. Develop stress	2.1 Analyse and understand potential sources of fatigue and stress

ELEMENT	PERFORMANCE CRITERIA
management strategies and techniques within a team	<p>in the work environment</p> <p>2.2 Develop an understanding of a range of stress management techniques within a team</p> <p>2.3 Develop techniques to support achievement of key performance indicators (KPIs) and priorities</p> <p>2.4 Encourage team members to support each other in managing stress</p> <p>2.5 Adopt strategies to effectively reduce, manage and deal with stress within a team</p> <p>2.6 Adopt stamina management strategies to maximise performance</p> <p>2.7 Develop techniques to assist team members to recover effectively from a stressful or difficult situation</p>
3. Implement stress management techniques within a team	<p>3.1 Adopt work routine and procedural strategies to minimise stress and fatigue within a team</p> <p>3.2 Use appropriate time management tools and techniques</p> <p>3.3 Develop individual/group training and development program as required</p> <p>3.4 Use team meetings and other opportunities to discuss stress management techniques and coach staff in using these techniques</p> <p>3.5 Regularly evaluate tools, techniques and strategies</p> <p>3.6 Develop team awareness of sources of internal and external support</p>
4. Develop team and morale building strategies	<p>4.1 Develop a strategy to engage and develop team members</p> <p>4.2 Develop a communication strategy within a team</p> <p>4.3 Manage and use team meetings effectively</p> <p>4.4 Develop a supportive and responsive team environment</p> <p>4.5 Delegate effectively to further empower and motivate team members</p>
5. Monitor and address stress levels within a team	<p>5.1 Monitor individual staff performance against performance requirements</p> <p>5.2 Conduct regular staff reviews to identify variations and difficulties impacting work requirements</p> <p>5.3 Monitor and support team members when in stressful situations</p> <p>5.4 Respond appropriately to behavioural signs of stress among</p>

ELEMENT	PERFORMANCE CRITERIA
	team members 5.5 Monitor work/life balance of team members 5.6 Discuss outcomes and develop action plans with team members as appropriate

## Foundation Skills

*This section describes language, literacy, numeracy and employment skills incorporated in the performance criteria that are required for competent performance.*

Skill	Performance Criteria	Description
Reading	2.3, 3.3, 5.1	<ul style="list-style-type: none"> <li>Analyses and compares specific and complex text to determine and distinguish requirements</li> </ul>
Writing	3.2, 3.3, 4.1, 4.2, 5.2, 5.6	<ul style="list-style-type: none"> <li>Develops documents that clearly explain ideas and advice</li> <li>Records information using required tools</li> </ul>
Oral Communication	2.4, 3.4, 3.6, 5.2, 5.4, 5.6	<ul style="list-style-type: none"> <li>Provides advice and information using language and features suitable to the audience in group and individual meetings</li> <li>Uses listening and questioning techniques to confirm understanding</li> </ul>
Numeracy	3.2	<ul style="list-style-type: none"> <li>Interprets mathematical information related to timelines</li> </ul>
Navigate the world of work	2.1	<ul style="list-style-type: none"> <li>Understands legislative responsibility to provide a safe working environment</li> </ul>
Interact with others	1.5, 2.4, 3.6, 4.3, 4.4, 4.5, 5.2, 5.4, 5.6	<ul style="list-style-type: none"> <li>Understands how own behaviour impacts others and leads by example</li> <li>Establishes and builds rapport and relationships with team members</li> <li>Provides effective support, feedback and coaching in difficult or tense situations</li> </ul>
Get the work done	1.2, 2.1, 2.2, 2.3, 2.5, 2.6, 2.7, 3.1-3.5, 3.6, 4.1, 4.2, 4.4, 4.5, 5.1-5.5	<ul style="list-style-type: none"> <li>Plans and monitors tasks to ensure deadlines are met and competing demands are accommodated</li> <li>Establishes, implements and monitors strategies, development plans and actions for team members</li> <li>Uses problem-solving techniques to analyse and address issues that arise</li> </ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
BSBWOR403 Manage stress in the workplace	BSBWOR403A Manage stress in the workplace	Updated to meet Standards for Training Packages	Equivalent unit

## Links

Companion Volume implementation guides are found in VETNet -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=11ef6853-ceed-4ba7-9d87-4da407e23c10>

# Assessment Requirements for BSBWOR403 Manage stress in the workplace

## Modification History

Release	Comments
Release 1	This version first released with BSB Business Services Training Package Version 1.0.

## Performance Evidence

Evidence of the ability to:

- use appropriate techniques and strategies to manage own stress
- identify potential sources of fatigue or stress in the work environment
- assist team members to develop and use strategies to manage or minimise stress
- build team morale and cohesion
- monitor performance and stress levels of team members, and respond appropriately.

Note: If a specific volume or frequency is not stated, then evidence must be provided at least once.

## Knowledge Evidence

To complete the unit requirements safely and effectively, the individual must:

- describe signs and sources of stress and fatigue
- summarise stress management and reduction techniques
- summarise stamina management techniques
- explain the relationship between time management and stress
- explain the requirements under work health and safety (WHS) legislation to address workplace stress.

## Assessment Conditions

Assessment must be conducted in a safe environment where evidence gathered demonstrates consistent performance of typical activities experienced in the industry capability – workplace effectiveness field of work and include access to:

- workplace equipment and resources
- organisational policies and procedures for stress management
- relevant legislation on health and safety

- case studies and, where possible, real situations
- interaction with others.

Assessors must satisfy NVR/AQTF assessor requirements.

## Links

Companion Volume implementation guides are found in VETNet -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=11ef6853-ceed-4ba7-9d87-4da407e23c10>

## BSBWOR404 Develop work priorities

### Modification History

Release	Comments
Release 2	This version first released with BSB Business Services Training Package Version 1.1. Version created to correct mapping table information
Release 1	This version first released with BSB Business Services Training Package Version 1.0.

### Application

This unit describes the skills and knowledge required to monitor and obtain feedback on own work performance and access learning opportunities for professional development.

This unit applies to individuals who are required to design their own work schedules and work plans and to establish priorities for their work. They will typically hold some responsibilities for the work of others and have some autonomy in relation to their own role.

No licensing, legislative, regulatory or certification requirements apply to this unit at the time of publication.

### Unit Sector

Industry Capability – Workplace Effectiveness

### Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Plan and complete own work schedule	1.1 Prepare workgroup plans which reflect consideration of resources, client needs and workgroup targets 1.2 Analyse and incorporate work objectives and priorities into personal schedules and responsibilities

ELEMENT	PERFORMANCE CRITERIA
	<p>1.3 Identify factors affecting the achievement of work objectives and establish contingencies and incorporate them into work plans</p> <p>1.4 Efficiently and effectively use business technology to manage and monitor planning completion and scheduling of tasks</p>
2. Monitor own work performance	<p>2.1 Identify and analyse personal performance through self-assessment and feedback from others on the achievement of work objectives</p> <p>2.2 Seek and evaluate feedback on performance from colleagues and clients in the context of individual and group requirements</p> <p>2.3 Routinely identify and report on variations in the quality of service and performance in accordance with organisational requirements</p>
3. Co-ordinate professional development	<p>3.1 Assess personal knowledge and skills against organisational benchmarks to determine development needs and priorities</p> <p>3.2 Research and identify sources and plan for opportunities for improvement in consultation with colleagues</p> <p>3.3 Use feedback to identify and develop ways to improve competence within available opportunities</p> <p>3.4 Identify, access and complete professional development activities to assist career development</p> <p>3.5 Store and maintain records and documents relating to achievements and assessments in accordance with organisational requirements</p>

## Foundation Skills

*This section describes language, literacy, numeracy and employment skills incorporated in the performance criteria that are required for competent performance.*

Skill	Performance Criteria	Description
Learning	3.1, 3.2, 3.3, 3.4	<ul style="list-style-type: none"> <li>Develops strategies to reflect on own performance, obtain feedback, and plan and source professional development opportunities</li> </ul>
Reading	1.2, 2.1, 2.3, 3.1, 3.5	<ul style="list-style-type: none"> <li>Recognises and interprets textual information from relevant sources to understand organisation's policies and practices</li> </ul>



Writing	1.1, 1.3, 2.2, 2.3, 3.2, 3.5	<ul style="list-style-type: none"> <li>Prepares written reports and workplace documentation that communicate complex information clearly and effectively</li> </ul>
Oral Communication	2.2, 2.3, 3.2	<ul style="list-style-type: none"> <li>Provides or seeks information using language suitable to audience and context</li> <li>Employs listening and questioning techniques to confirm understanding</li> </ul>
Numeracy	1.1, 1.2, 1.3	<ul style="list-style-type: none"> <li>Interprets numerical information related to budgets and timeframes</li> </ul>
Navigate the world of work	1.2, 2.1, 2.3, 3.1, 3.5	<ul style="list-style-type: none"> <li>Identifies and understands roles and responsibilities in relation to organisational objectives, policies and procedures</li> </ul>
Interact with others	2.2, 2.3, 3.2	<ul style="list-style-type: none"> <li>Selects and uses appropriate practices when communicating with internal and external stakeholders to seek or share information</li> <li>Establishes and builds rapport and relationships with others to foster a culture of trust and honesty in communications</li> </ul>
Get the work done	1.1-1.4, 2.3, 3.1, 3.2, 3.4, 3.5	<ul style="list-style-type: none"> <li>Plans, organises and implements tasks to meet organisational requirements</li> <li>Systematically gathers and analyses information and evaluates options in order to anticipate potential problems and develop contingency plans</li> <li>Uses the main features and functions of digital technologies and tools to complete work tasks efficiently and effectively</li> </ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
BSBWOR404 Develop work priorities	BSBWOR404B Develop work priorities	Updated to meet Standards for Training Packages	Equivalent unit

## Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=11ef6853-ceed-4ba7-9d87-4da407e23c10>



# Assessment Requirements for BSBWOR404 Develop work priorities

## Modification History

Release	Comments
Release 2	This version first released with BSB Business Services Training Package Version 1.1. Version created to correct mapping table information
Release 1	This version first released with BSB Business Services Training Package Version 1.0.

## Performance Evidence

Evidence of the ability to:

- prepare and communicate own work plan
- schedule work objectives and tasks to support the achievement of the workgroup goals
- review own work performance against workgroup objectives through self-assessment and seeking and acting on feedback from clients and colleagues
- plan and access learning opportunities to extend personal work competencies.

Note: if a specific volume or frequency is not stated, then evidence must be provided at least once.

## Knowledge Evidence

To complete the unit requirements safely and effectively, the individual must:

- explain how business technology applications can be used to schedule tasks and plan work
- explain techniques to prepare personal plans and establish priorities
- identify methods to identify and prioritise personal learning needs
- outline a range of professional development options
- explain methods to elicit, analyse and interpret feedback
- provide a detailed explanation of methods that can be used to evaluate own performance.

## Assessment Conditions

Assessment must be conducted in a safe environment where evidence gathered demonstrates consistent performance of typical activities experienced in the industry capability - workplace effectiveness field of work and include access to:

- workplace documentation including policies and procedures, and benchmarks for work group productivity and performance
- workplace equipment and resources
- case studies and, where possible, real situations
- interaction with others.

Assessors must satisfy NVR/AQTF assessor requirements.

## Links

Companion Volume implementation guides are found in VETNet -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=11ef6853-ceed-4ba7-9d87-4da407e23c10>

## BSBWRT301 Write simple documents

### Modification History

Release	Comments
Release 1	This version first released with BSB Business Services Training Package Version 1.0.

### Application

This unit describes the skills and knowledge required to plan, draft and finalise a basic document.

It applies to individuals who apply a broad range of competencies in various work contexts and may exercise some discretion and judgement to produce a range of workplace documentation.

No licensing, legislative, regulatory or certification requirements apply to this unit at the time of publication.

### Unit Sector

Communication – Writing

### Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1 Plan document	1.1 Determine audience and purpose for the document 1.2 Determine the format and structure 1.3 Establish key points for inclusion 1.4 Identify organisational requirements 1.5 Establish method of communication 1.6 Establish means of communication

ELEMENT	PERFORMANCE CRITERIA
2 Draft document	2.1 Develop draft document to communicate key points 2.2 Obtain and include any additional information that is required
3 Review document	3.1 Check draft for suitability of tone for audience, purpose, format and communication style 3.2 Check draft for readability, grammar, spelling, and sentence and paragraph construction 3.3 Check draft for sequencing and structure 3.4 Check draft to ensure it meets organisational requirements 3.5 Ensure draft is proofread, where appropriate, by supervisor or colleague
4 Write final document	4.1 Make and proofread necessary changes 4.2 Ensure document is sent to intended recipient 4.3 File copy of document in accordance with organisational policies and procedures

## Foundation Skills

*This section describes language, literacy, numeracy and employment skills incorporated in the performance criteria that are required for competent performance.*

Skill	Performance Criteria	Description
Reading	1.1-1.3, 3.1-3.4, 4.1	<ul style="list-style-type: none"><li>Recognises and interprets a variety of text to determine and confirm task requirements</li><li>Proofreads documents checking for grammar, spelling, structure, and suitability of style and format for audience</li></ul>
Writing	2.1, 2.2, 3.1-3.5, 4.1	<ul style="list-style-type: none"><li>Produces and edits basic documents, according to organisational requirements, for a given audience and purpose</li></ul>
Oral Communication	2.2, 3.5	<ul style="list-style-type: none"><li>Uses listening and questioning skills to seek additional information or confirmation of task completion</li></ul>
Navigate the world of work	1.4, 3.4, 4.3	<ul style="list-style-type: none"><li>Understands and complies with organisational policies and procedures</li></ul>

Interact with others	2.2, 3.5	<ul style="list-style-type: none"><li>Follows accepted communication practices and protocols when seeking information or feedback from others</li></ul>
Get the work done	1.1-1.6, 2.1, 2.2, 3.4, 3.5, 4.1-4.3	<ul style="list-style-type: none"><li>Takes responsibility for planning, sequencing and prioritising tasks to achieve required outcomes</li><li>Uses the main features and functions of digital tools to complete work tasks</li></ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
BSBWRT301 Write simple documents	BSBWRT301A Write simple documents	Updated to meet Standards for Training Packages	Equivalent unit

## Links

Companion Volume implementation guides are found in VETNet -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=11ef6853-ceed-4ba7-9d87-4da407e23c10>

# Assessment Requirements for BSBWRT301 Write simple documents

## Modification History

Release	Comments
Release 1	This version first released with BSB Business Services Training Package Version 1.0

## Performance Evidence

Evidence of the ability to:

- plan, draft and finalise three different simple documents that accurately convey the required basic information in a format suitable for the intended audience and in accordance with organisational policies and procedures for document production.

Note: If a specific volume or frequency is not stated, then evidence must be provided at least once.

## Knowledge Evidence

To complete the unit requirements safely and effectively, the individual must:

- identify the process for checking basic grammar, spelling and punctuation
- describe different communication methods
- describe how audience, purpose and method of communication influence the tone of a document.

## Assessment Conditions

Assessment must be conducted in a safe environment where evidence gathered demonstrates consistent performance of typical activities experienced in the communication – writing field of work and include access to:

- office equipment and resources to assist in document production
- organisational policies and procedures
- examples of documents to review.

Assessors must satisfy NVR/AQTF assessor requirements.



## Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=11ef6853-ceed-4ba7-9d87-4da407e23c10>

## BSBWRT401 Write complex documents

### Modification History

Release	Comments
Release 1	This version first released with BSB Business Services Training Package Version 1.0.

### Application

This unit describes the skills and knowledge required to plan documents, draft text, prepare final text and produce documents of some complexity.

It applies to individuals who work in a range of business environments and are skilled in the creation of reports, information and general promotion documents that are more complex than basic correspondence, memos or forms and that require review and analysis of a range of information sources.

No licensing, legislative or certification requirements apply to this unit at the time of publication.

### Unit Sector

Communication – Writing

### Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1 Plan documents	1.1 Determine the purposes of documents 1.2 Choose appropriate formats for documents 1.3 Establish means of communication 1.4 Determine requirements of documents 1.5 Determine categories and logical sequences of data, information and knowledge to achieve document objectives

ELEMENT	PERFORMANCE CRITERIA
	1.6 Develop overview of structure and content of documents
2 Draft text	2.1 Review and organise available data, information and knowledge according to proposed structure and content 2.2 Ensure data, information and knowledge is aggregated, interpreted and summarised to prepare text that satisfies document purposes and objectives 2.3 Include graphics as appropriate 2.4 Identify gaps in required data and information, and collect additional material from relevant enterprise personnel 2.5 Draft text according to document requirements and genre 2.6 Use language appropriate to the audience
3 Prepare final text	3.1 Review draft text to ensure document objectives are achieved and requirements are met 3.2 Check grammar, spelling and style for accuracy and punctuation 3.3 Ensure draft text is approved by relevant enterprise personnel 3.4 Incorporate revisions in final copy
4 Produce document	4.1 Choose basic design elements for documents appropriate to audience and purpose 4.2 Use word processing software to apply basic design elements to text 4.3 Check documents to ensure all requirements are met

## Foundation Skills

*This section describes language, literacy, numeracy and employment skills incorporated in the performance criteria that are required for competent performance.*

Skill	Performance Criteria	Description
Reading	1.1, 1.2, 2.1, 2.2, 2.4, 3.1, 3.2, 4.3	<ul style="list-style-type: none"><li>Interprets information to identify requirements and prepares material suitable to target audience and environment</li><li>Proofreads texts for accuracy</li></ul>
Writing	1.6, 2.2, 2.3, 2.5,	<ul style="list-style-type: none"><li>Creates documents for a specific audience using cohesive and well-structured language to convey</li></ul>

	2.6, 3.2, 3.4, 4.1	detailed and accurate information <ul style="list-style-type: none"> <li>Ensures vocabulary, layout and grammatical arrangement achieves meaning and intent of document</li> </ul>
Oral Communication	1.1, 1.4, 2.4, 3.3	<ul style="list-style-type: none"> <li>Obtains information or clarifies requirements by asking questions and listening</li> </ul>
Navigate the world of work	1.4, 4.3	<ul style="list-style-type: none"> <li>Adheres to organisational policies and procedures related to document production</li> </ul>
Interact with others	1.1, 1.4, 1.5, 2.4, 3.3	<ul style="list-style-type: none"> <li>Follows accepted communication practices and protocols when seeking advice about documents from colleagues, supervisors and managers</li> </ul>
Get the work done	1.1-1.6, 2.1-2.5, 3.3, 4.1-4.2	<ul style="list-style-type: none"> <li>Plans, organises and implements tasks required to produce documents</li> <li>Makes decisions based on standard procedures, using more formal decision making processes where required</li> <li>Uses the main features and functions of digital tools to complete work tasks</li> </ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
BSBWRT401 Write complex documents	BSBWRT401A Write complex documents	Updated to meet Standards for Training Packages	Equivalent unit

## Links

Companion Volume implementation guides are found in VETNet -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=11ef6853-ceed-4ba7-9d87-4da407e23c10>

# Assessment Requirements for BSBWRT401 Write complex documents

## Modification History

Release	Comments
Release 1	This version first released with BSB Business Services Training Package Version 1.0.

## Performance Evidence

Evidence of the ability to:

- plan, draft and finalise complex documents that require review and analysis of a range of information sources
- use business technology to apply formatting, and incorporate graphics
- edit the draft text to ensure accuracy and clarity of information, obtain feedback on the draft and revise the draft
- apply the enterprise style guide/house style.

Note: If a specific volume or frequency is not stated, then evidence must be provided at least once.

## Knowledge Evidence

To complete the unit requirements safely and effectively, the individual must:

- identify the enterprise style guide/house style
- outline formatting styles and their impact on formatting, readability and appearance of documents
- explain rules and conventions for written English, as defined by general and specialist sources.

## Assessment Conditions

Assessment must be conducted in a safe environment where evidence gathered demonstrates consistent performance of typical activities experienced in the communication – writing field of work and include access to:

- office equipment and resources
- organisational policies and procedures
- organisational style guides.

Assessors must satisfy NVR/AQTF assessor requirements.

## Links

Companion Volume implementation guides are found in VETNet -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=11ef6853-ceed-4ba7-9d87-4da407e23c10>

## CPCCDO3011A Perform dogging

### Modification History

Not Applicable

### Unit Descriptor

#### Unit descriptor

This unit of competency specifies the outcomes required to undertake basic dogging work, both in sight and out of sight of the crane operator, for the purpose of shifting loads mechanically.

The unit includes selecting sling types and sizes and maintaining the stability of the load.

### Application of the Unit

#### Application of the unit

This unit of competency supports the attainment of the understanding and skills to use dogging tools and equipment, which may include working with others and as a member of a team.

### Licensing/Regulatory Information

Not Applicable

### Pre-Requisites

#### Prerequisite units

CPCCOHS2001A

Apply OHS requirements, policies and procedures in the construction industry

## Employability Skills Information

**Employability skills** This unit contains employability skills.

## Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency. Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.

## Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Plan and prepare.	<p>1.1. Work instructions and operational details are obtained using relevant <b><i>information</i></b>, confirmed and applied for <b><i>planning and preparation</i></b> purposes.</p> <p>1.2. <b><i>Safety (OHS)</i></b> requirements are followed in accordance with safety plans and policies.</p> <p>1.3. Signage and barricade requirements are identified and implemented.</p> <p>1.4. <b><i>Tools and equipment</i></b> selected to carry out tasks are consistent with the requirements of the job, checked for serviceability and any faults are rectified or reported prior to commencement.</p> <p>1.5. Materials quantity requirements are calculated in accordance with plans, specifications and <b><i>quality requirements</i></b>.</p> <p>1.6. Materials appropriate to the work application are identified, obtained, prepared, safely handled and located ready for use.</p> <p>1.7. <b><i>Environmental requirements</i></b> are identified for the project in accordance with environmental plans and regulatory obligations and applied.</p>
2. Select dogging equipment.	<p>2.1. Resources, materials and equipment are selected and inspected for compliance with job specifications.</p> <p>2.2. Job sequencing schedule is communicated with team</p>



**ELEMENT****PERFORMANCE CRITERIA**

	members and others to ensure coordination.
	2.3. Load mass is <b>calculated</b> and confirmed using load charts and standard calculations.
	2.4. Loads in <b>slings</b> and equipment are calculated to suit job requirements.
3. Sling loads.	3.1. <b>Lifting devices</b> are assembled and erected for the movement of load.
	3.2. Using appropriate <b>load slinging method</b> , loads are slung to <b>crane</b> ready for lifting.
4. Shift loads.	4.1. Loads are shifted ensuring stability and in compliance with work method statement.
	4.2. Load is directed to landing position using communications in compliance with Australian standards and recognised work practices.
	4.3. Load is landed in required position on packing or bearers.
5. Remove dogging equipment.	5.1. Load shifting equipment is dismantled and inspected for wear.
	5.2. Logbook and site records are completed to company requirements.
6. Clean up.	6.1. Work area is cleared and materials disposed of, reused or recycled in accordance with legislation, regulations, codes of practice and job specification.
	6.2. Tools and equipment are cleaned, checked, maintained and stored in accordance with manufacturer recommendations and standard work practices.
	6.3. Work completion procedures are applied and relevant personnel notified that work is finished.

## Required Skills and Knowledge

### REQUIRED SKILLS AND KNOWLEDGE

This section describes the skills and knowledge required for this unit.

#### Required skills

Required skills for this unit are:

## REQUIRED SKILLS AND KNOWLEDGE

- communication skills to:
  - determine requirements
  - enable clear and direct communication, using questioning to identify and confirm requirements, share information, listen and understand
  - follow instructions
  - read and interpret:
    - documentation from a variety of sources
    - drawings and specifications
  - report faults
  - use language and concepts appropriate to cultural differences
  - use and interpret non-verbal communication, such as hand signals
- evaluating own actions and making judgments about performance and necessary improvements
- identifying and accurately reporting to appropriate personnel any faults in tools, equipment or materials
- organisational skills, including the ability to plan and set out work
- recognising procedures, following instructions, responding to change and contributing to workplace responsibilities, such as current work site environmental and sustainability frameworks or management systems
- teamwork skills to coordinate own work with others to action tasks and relate to people from a range of cultural and ethnic backgrounds and with varying physical and mental abilities
- technological skills to:
  - use a range of mobile technology, such as two-way radio and mobile phones
  - voice and hand signals to access and understand site-specific instructions.

### Required knowledge

Required knowledge for this unit is:

- crane operations and limitations
- designs and functions of lifting equipment
- dogging equipment
- dogging techniques
- elevated work platforms
- general construction terminology
- job safety analysis (JSA) and safe work method statements
- logbooks
- material safety data sheets (MSDS)
- materials storage and environmentally friendly waste management
- plans, drawings and specifications
- processes for the calculation of material requirements

## REQUIRED SKILLS AND KNOWLEDGE

- quality requirements
- relevant Acts, regulations and codes of practice
- safe working at heights and fall arrest
- safe working load tags
- signalling methods and communications
- types, characteristics, uses and limitations of plant, tools and equipment
- weather and ground considerations
- workplace and equipment safety requirements.

## Evidence Guide

### EVIDENCE GUIDE

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The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.

#### Overview of assessment

This unit of competency could be assessed in the workplace or a close simulation of the workplace environment, provided that simulated or project-based assessment techniques fully replicate construction workplace conditions, materials, activities, responsibilities and procedures.

#### Critical aspects for assessment and evidence required to demonstrate competency in this unit

A person who demonstrates competency in this unit must be able to provide evidence of the ability to:

- locate, interpret and apply relevant information, standards and specifications
- comply with site safety plan and OHS legislation, regulations and codes of practice applicable to workplace operations
- comply with organisational policies and procedures including quality requirements
- safely and effectively operate and use tools, plant and equipment
- communicate and work effectively and safely with others
- as a minimum, read tags, sling, load, direct and land loads in conjunction with a slewing

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## EVIDENCE GUIDE

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mobile crane with a telescopic boom and a winch, out of sight for:

- rigid heavy loads to two thirds capacity of the crane
- luff movements, boom retract and boom extend, slew right and slew left, winch up and down in combination
- a flexible load with a minimum of three lifting points
- using hand signals and whistle from minimum radius to maximum radius.

### Context of and specific resources for assessment

This competency is to be assessed using standard and authorised work practices, safety requirements and environmental constraints.

Assessment of essential underpinning knowledge will usually be conducted in an off-site context.

Assessment is to comply with relevant regulatory or Australian standards' requirements.

Resource implications for assessment include:

- an induction procedure and requirement
- realistic tasks or simulated tasks covering the mandatory task requirements
- relevant specifications and work instructions
- tools and equipment appropriate to applying safe work practices
- support materials appropriate to activity
- workplace instructions relating to safe work practices and addressing hazards and emergencies
- material safety data sheets
- research resources, including industry related systems information.

Reasonable adjustments for people with disabilities must be made to assessment processes where required. This could include access to modified equipment and other physical resources, and the provision of appropriate assessment support.

### Method of assessment

Assessment methods must:

- satisfy the endorsed Assessment Guidelines of

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## EVIDENCE GUIDE

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the Construction, Plumbing and Services Training Package

- include direct observation of tasks in real or simulated work conditions, with questioning to confirm the ability to consistently identify and correctly interpret the essential underpinning knowledge required for practical application
- reinforce the integration of employability skills with workplace tasks and job roles
- confirm that competency is verified and able to be transferred to other circumstances and environments.

Validity and sufficiency of evidence requires that:

- competency will need to be demonstrated over a period of time reflecting the scope of the role and the practical requirements of the workplace
- where the assessment is part of a structured learning experience the evidence collected must relate to a number of performances assessed at different points in time and separated by further learning and practice, with a decision on competency only taken at the point when the assessor has complete confidence in the person's demonstrated ability and applied knowledge
- all assessment that is part of a structured learning experience must include a combination of direct, indirect and supplementary evidence.

Assessment processes and techniques should as far as is practical take into account the language, literacy and numeracy capacity of the candidate in relation to the competency being assessed.

Supplementary evidence of competency may be obtained from relevant authenticated documentation from third parties, such as existing supervisors, team leaders or specialist training staff.

## Range Statement

### RANGE STATEMENT

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The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.

***Information*** includes:

- diagrams or sketches
- instructions issued by authorised organisational or external personnel
- manufacturer specifications and instructions, where specified
- MSDS
- memos
- regulatory and legislative requirements pertaining to performing dogging
- relevant Australian standards
- safe work procedures relating to performing dogging
- signage
- verbal, written and graphical instructions
- work bulletins
- work schedules, plans and specifications.

***Planning and preparation*** include:

- assessment of conditions and hazards
- determination of work requirements and safety plans and policies
- equipment defect identification
- work site inspection.

***Safety (OHS)*** is to be in accordance with state and territory legislation and regulations and project safety plan and may include:

- emergency procedures, including extinguishing fires, organisational first aid requirements and evacuation
- handling activities that may require the assistance of others or the use of manual or mechanical lifting devices where size, weight or other issues, such as a disability are a factor
- hazard control
- hazardous materials and substances
- organisational first aid
- PPE prescribed under legislation, regulations and workplace policies and practices
- safe operating procedures, including the

## RANGE STATEMENT

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conduct of operational risk assessment and treatments associated with:

- earth leakage boxes
- lighting
- power cables, including overhead service trays, cables and conduits
- restricted access barriers
- surrounding structures
- traffic control
- trip hazards
- work site visitors and the public
- working at heights
- working in confined spaces
- working in proximity to others
- use of firefighting equipment
- use of tools and equipment
- workplace environmental requirements and safety.

***Tools and equipment*** include:

- brick cages
- kibbles
- personnel cages
- rescue cages
- rubbish bins
- spreader bars and beams.

***Quality requirements*** include:

- internal company quality policy and standards
- manufacturer specifications, where specified
- relevant regulations, including Australian standards
- workplace operations and procedures.

***Environmental requirements*** include:

- clean-up management
- noise
- vibration
- waste management.

***Calculations*** include:

- delivery dockets
- load charts
- load share
- pre-cast compliance charts
- safe working loads
- standard calculations.

## RANGE STATEMENT

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- Slings*** include:
- chain
  - flexible steel wire rope
  - natural or synthetic fibre.
- Lifting devices:***
- include:
    - eye bolts
    - lifting clutches
    - shackles
    - snatch blocks
    - tags
  - may include:
    - collared eye bolts
    - equalizing sheaves
    - lifting lugs
    - rigging screws
    - turn buckles.
- Load slinging methods*** include:
- straight sling
  - adjustable sling
  - reeved sling
  - inclined sling.
- Cranes*** include:
- fixed cranes
  - hydraulic mobile cranes
  - lattice boom mobile cranes
  - slewing cranes
  - tower cranes.

## Unit Sector(s)

Unit sector                      Construction

## Co-requisite units

Co-requisite units              Nil



**Co-requisite units** Nil

## **Functional area**

**Functional area**

# CPCCOHS2001A Apply OHS requirements, policies and procedures in the construction industry

## Modification History

Not Applicable

## Unit Descriptor

**Unit descriptor** This unit of competency specifies the outcomes required to carry out OHS requirements through safe work practices at any on or off-site construction workplace. It requires the performance of work in a safe manner through awareness of risks and work requirements, and the planning and performance of safe work practices with concern for personal safety and the safety of others.

## Application of the Unit

**Application of the unit** This unit of competency covers fundamental OHS necessary to undertake work tasks within any sector in the construction industry. It includes the identification of hazardous materials, including asbestos, and compliance with legislated work safety practices. It does not cover removal of asbestos, which is a licensed activity.

The unit relates directly to the general induction training program specified by the *National Code of Practice for Induction for Construction Work* (ASCC 2007) required to enter a construction work site. Completion of unit CPCCOHS1001A covers this requirement.

## Licensing/Regulatory Information

Not Applicable

## Pre-Requisites

**Prerequisite units** Nil

## Employability Skills Information

**Employability skills** This unit contains employability skills.

## Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.

Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.

## Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Identify and assess risks.	<p>1.1. <b><i>Hazards</i></b> in the work area are identified, assessed and reported to <b><i>designated personnel</i></b>.</p> <p>1.2. Safety risks in the work area are identified, assessed and reported to designated personnel.</p> <p>1.3. <b><i>Safe work practices, duty of care</i></b> requirements and safe work instructions are followed for controlling risks.</p> <p>1.4. OHS, hazard, accident or <b><i>incident</i></b> reports are contributed to according to workplace procedures and <b><i>Australian government and state or territory OHS legislation</i></b> and relevant <b><i>information</i></b>.</p>
2. Identify hazardous materials and other	<p>2.1. <b><i>Hazardous materials</i></b> on a work site are correctly identified and, if appropriate, handled and used</p>

## ELEMENT

## PERFORMANCE CRITERIA

hazards on work sites.	<p>according to company and legislated procedures.</p> <p>2.2. <b>Measures for controlling risks</b> and construction hazards are applied effectively and immediately.</p> <p>2.3. Hazardous materials that have safety implications for self and other workers are secured immediately they are identified, using appropriate <b>signs and symbols</b>.</p> <p>2.4. Asbestos-containing materials are identified on a work site and reported to designated personnel.</p>
3. Plan and prepare for safe work practices.	<p>3.1. Correct <b>personal protective equipment</b> and clothing for each area of construction work are identified, worn, correctly fitted, used and stored according to enterprise procedures.</p> <p>3.2. Selection of <b>tools, equipment</b> and <b>materials</b>, and organisation of tasks are performed in conjunction with other personnel on site and in accordance with enterprise procedures.</p> <p>3.3. Required barricades and signage are determined and erected at the appropriate site location.</p> <p>3.4. Material safety data sheets (MSDS), and job safety analysis (JSA) and safe work method statements relevant to the work to be carried out are identified and applied.</p>
4. Apply safe work practices.	<p>4.1. Tasks are performed in a manner that is safe for operators, other personnel and the general community in accordance with legislative requirements, and enterprise policies and procedures.</p> <p>4.2. Plant and equipment guards are used in accordance with manufacturer specifications, work site regulations and Australian standards where applicable.</p> <p>4.3. Procedures and relevant authorities for reporting hazards, incidents and injuries are used.</p> <p>4.4. <b>Prohibited tools and equipment</b> in areas with identified asbestos are recognised and not used.</p> <p>4.5. Work site safety signs and symbols are identified and followed.</p> <p>4.6. Work site area is cleared and maintained to prevent and protect self and others from incidents and accidents and to meet <b>environmental requirements</b>.</p>
5. Follow emergency procedures.	<p>5.1. Designated personnel are identified in the event of an emergency for communication purposes.</p> <p>5.2. Safe workplace procedures for dealing with accidents,</p>

## ELEMENT

## PERFORMANCE CRITERIA

various *types of fire* and other emergencies are followed, including identification or use, if appropriate, of *fire equipment* within scope of responsibilities.

5.3. *Emergency response and evacuation procedures* are known, practised and carried out effectively when required.

5.4. Emergency first aid treatment of minor injuries is carried out correctly and details of any treatment administered are reported accurately to designated personnel as soon as possible.

## Required Skills and Knowledge

### REQUIRED SKILLS AND KNOWLEDGE

This section describes the skills and knowledge required for this unit.

#### Required skills

Required skills for this unit are:

- ability to accurately recognise OHS hazards, including asbestos and take all opportunities to alleviate safety problems in a variety of construction work sites and environments
- capacity to deal calmly and effectively with any potential safety problems and work closely with other team members and supervisors to ensure safe working conditions are maintained
- communication skills to:
  - determine and report hazards and risks
  - enable clear and direct communication, using questioning to identify and confirm requirements, share information, listen and understand
  - follow instructions
  - read and interpret:
    - MSDS, JSA and safe work method statements
    - other relevant documentation
  - use language and concepts appropriate to cultural differences
  - use and interpret non-verbal communication, such as hand signals
  - written skills to contribute to reports
- identifying and accurately reporting to appropriate personnel any faults in tools, equipment or materials

## REQUIRED SKILLS AND KNOWLEDGE

- organisational skills, including the ability to plan and set out work
- teamwork skills to work with others to action tasks and relate to people from a range of cultural and ethnic backgrounds and with varying physical and mental abilities
- technological skills to:
  - use a range of mobile technology, such as two-way radio and mobile phones
  - voice and hand signals to access and understand site-specific instructions.

### Required knowledge

Required knowledge for this unit is:

- asbestos management code prevention of exposure
- basic first aid procedures
- common construction industry terminology
- common workplace safety hazards and risks and procedures for reporting these to designated personnel
- construction industry communications equipment and use
- construction industry health and safety signage
- emergency response and evacuation procedures
- JSA and safe work method statements
- MSDS
- OHS hierarchy of control and role of OHS committees and representatives
- relevant legislation, regulations and workplace requirements relating to OHS, including hazard reduction and personal safety, including duty of care responsibilities, workers' compensation and injury management requirements
- safe manual handling techniques
- safe work practices in normal working environment
- safety equipment, policies and requirements for working in confined spaces and at height, including on rooves
- tools and equipment prohibited for use near identified asbestos-containing materials (ACM)
- types of fires and basic firefighting equipment
- types, possible location and risks of ACM, including serpentine and amphibole groups, and their use in common building materials
- types, purpose and use of construction industry personal protective equipment and clothing
- workplace and equipment safety requirements.

# Evidence Guide

## EVIDENCE GUIDE

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The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.

### Overview of assessment

This unit of competency could be assessed in the workplace or a close simulation of the workplace environment, provided that simulated or project-based assessment techniques fully replicate construction workplace conditions, materials, activities, responsibilities and procedures.

### Critical aspects for assessment and evidence required to demonstrate competency in this unit

A person who demonstrates competency in this unit must be able to provide evidence of the ability to:

- correctly locate, interpret and apply relevant information, standards and specifications
- comply with a site safety plan, organisational policies, OHS regulations and state and territory legislation applicable to workplace operations, including quality requirements
- correctly identify ACM and policies and procedures for reporting this to designated personnel
- effectively communicate and work safely with others
- apply general procedures for responding to incidents and reporting hazards and injuries
- select and use firefighting equipment to extinguish a simulated mechanical fire
- evacuate a site through simulated response to an emergency, complying with workplace procedures.

### Context of and specific resources for assessment

This competency is to be assessed using standard and authorised work practices, safety requirements and environmental constraints.

Assessment of essential underpinning knowledge will usually be conducted in an off-site context.

Assessment is to comply with relevant regulatory or Australian standards' requirements.

Resource implications for assessment include:

- an induction procedure and requirement
- realistic tasks or simulated tasks covering the mandatory task requirements

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## EVIDENCE GUIDE

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- relevant specifications and work instructions
- tools and equipment appropriate to applying safe work practices
- support materials appropriate to activity
- workplace instructions relating to safe work practices and addressing hazards and emergencies
- material safety data sheets
- research resources, including industry related systems information.

Reasonable adjustments for people with disabilities must be made to assessment processes where required. This could include access to modified equipment and other physical resources, and the provision of appropriate assessment support.

### Method of assessment

Assessment methods must:

- satisfy the endorsed Assessment Guidelines of the Construction, Plumbing and Services Training Package
- include direct observation of tasks in real or simulated work conditions, with questioning to confirm the ability to consistently identify and correctly interpret the essential underpinning knowledge required for practical application
- reinforce the integration of employability skills with workplace tasks and job roles
- confirm that competency is verified and able to be transferred to other circumstances and environments.

Validity and sufficiency of evidence requires that:

- competency will need to be demonstrated over a period of time reflecting the scope of the role and the practical requirements of the workplace
- where the assessment is part of a structured learning experience the evidence collected must relate to a number of performances assessed at different points in time and separated by further learning and practice, with a decision on competency only taken at the point when the assessor has complete confidence in the person's demonstrated ability and applied knowledge
- all assessment that is part of a structured learning experience must include a combination of direct,



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## EVIDENCE GUIDE

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indirect and supplementary evidence.

Assessment processes and techniques should as far as is practical take into account the language, literacy and numeracy capacity of the candidate in relation to the competency being assessed.

Supplementary evidence of competency may be obtained from relevant authenticated documentation from third parties, such as existing supervisors, team leaders or specialist training staff.

## Range Statement

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### RANGE STATEMENT

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The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.

***Hazards*** include:

- chemical spills
- electrical safety work in confined spaces
- excavations, including trenches
- falling objects
- fires
- gases
- hazardous materials
- high or very low temperatures
- HIV and other infectious diseases
- liquids under pressure
- manual handling
- moving machinery and equipment
- noise, dust and vapours
- overhanging beams
- protrusions
- sharp equipment
- traffic
- ultraviolet (UV) radiation
- unplanned collapse

## RANGE STATEMENT

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***Designated personnel*** to be contacted in case of an emergency, accident, fire or to report a risk such as identification of ACM are:

- working at heights.
- designated safety officers, determined by the enterprise, who have undertaken specific safety response training
- managers or other senior personnel
- personnel competent and/or licensed in the safe handling of asbestos
- supervisors.

***Safe work practices:***

- include:
  - day to day observation of OHS policies and procedures
  - emergency procedures
  - risk assessment
  - use of basic firefighting equipment
- relate to:
  - access to site amenities, such as drinking water and toilets
  - general requirements for safe use of plant and equipment
  - general requirements for use of personal protective equipment and clothing
  - housekeeping to ensure a clean, tidy and safer work area
  - no drugs and alcohol at work
  - preventing bullying and harassment
  - smoking in designated areas
  - storage and removal of debris.

***Duty of care*** requirements:

- relate to:
  - legal responsibility under duty of care to do everything reasonably practicable to protect others from harm
  - relevant state and territory OHS requirements and include employers and self-employed persons, persons in control of the work site, construction supervisors, designers, manufacturers and suppliers, construction workers, subcontractors and inspectors
- may relate to:
  - own responsibilities to comply with safe work practices, including activities that

## RANGE STATEMENT

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***Incidents*** include:

require licences, tickets or certificates of competency.

- accidents resulting in personal injury or damage to property
- near misses or dangerous occurrences that do not cause injury but may pose an immediate and significant risk to persons or property, and need to be reported so that action can be taken to prevent recurrence, for example:
  - breathing apparatus malfunctioning to the extent that the user's health is in danger
  - collapse of the floor, wall or ceiling of a building being used as a workplace
  - collapse or failure of an excavation more than 1.5 metres deep (including any shoring)
  - collapse or partial collapse of a building or structure
  - collapse, overturning or failure of the load bearing of any scaffolding, lift, crane, hoist or mine-winding equipment
  - damage to or malfunction of any other major plant
  - electric shock
  - electrical short circuit, malfunction or explosion
  - uncontrolled explosion, fire or escape of gas, hazardous substance or steam
  - any other unintended or uncontrolled incident or event arising from operations carried on at a workplace.

***Australian government and state or territory OHS legislative requirements*** include:

- Australian standards
- construction industry OHS standards and guidelines
- duty of care
- health and safety representatives, committees and supervisors
- JSA and safe work method statements
- licences, tickets or certificates of competency
- National Code of Practice for Induction Training for Construction Work
- national safety standards

## RANGE STATEMENT

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**Information** includes:

- OHS and welfare Acts and regulations
- safety codes of practice.
- diagrams or sketches
- emergency situation contacts
- evacuation plans
- instructions issued by authorised organisational or external personnel
- labels
- manufacturer specifications and instructions
- memos
- MSDS
- organisation work specifications and requirements
- plans and specifications
- regulatory and legislative requirements, such as Acts, regulations and codes of practice
- relevant Australian standards
- reports of near misses or accidents
- safe work procedures or equivalent documentation
- safety meeting minutes
- signage
- verbal or written and graphical instructions
- work bulletins
- work schedules.

**Hazardous materials** include:

- ACM
- cleaning chemicals, including those in pressurised containers
- glues
- insulation materials
- solvents
- treated timber products.

**Measures for controlling risk** or minimising hazards in accordance with the hierarchy of control include:

- elimination
- substitution
- isolation
- engineering control
- administrative control
- personal protective equipment.

**Signs and symbols** include:

- emergency information signs (exits, equipment, first aid)
- fire signs (location of fire alarms and

## RANGE STATEMENT

	<ul style="list-style-type: none"><li>firefighting equipment)</li><li>hazard identification, facility or location signs</li><li>regulatory signs (e.g. prohibition, mandatory and limitation or restriction), such as hazard signs (danger and warning)</li><li>safety tags and lockout (danger tags, out of service tags)</li><li>site safety, directional, traffic and warning signs and symbols.</li></ul>
<b><i>Asbestos-containing materials are identified:</i></b>	<ul style="list-style-type: none"><li>includes recognising common types of ACM that may be found in construction materials and buildings</li><li>covers asbestos rope/fabrics, asbestos cement sheeting, asbestos cement piping and lagging on pipes, bituminous waterproof membrane, fire doors, electrical switchboards, millboard, and sheeting under ceramic or vinyl floor tiles in wet areas.</li></ul>
<b><i>Asbestos-containing materials are reported to:</i></b>	<ul style="list-style-type: none"><li>person in control of the workplace as set out in the relevant Asbestos Management Code.</li></ul>
<b><i>Personal protective equipment is to include:</i></b>	<ul style="list-style-type: none"><li>aprons</li><li>arm guards</li><li>caps</li><li>dust mask/respirators</li><li>ear muffs/plugs</li><li>gloves</li><li>hard hats</li><li>high visibility retro reflective vests</li><li>jackets</li><li>overalls</li><li>safety glasses/goggles</li><li>steel capped boots</li><li>UV protective clothing and sunscreen.</li></ul>
<b><i>Tools and equipment include:</i></b>	<ul style="list-style-type: none"><li>firefighting equipment</li><li>first aid kit</li><li>ladders and work platforms</li><li>personal protective equipment.</li></ul>
<b><i>Materials include:</i></b>	<ul style="list-style-type: none"><li>first aid materials suitable for emergency first aid treatment of minor injuries.</li></ul>
<b><i>Prohibited tools and equipment that cannot be used near identified</i></b>	<ul style="list-style-type: none"><li>high-speed abrasive power and pneumatic tools, high pressure water cleaners, compressed</li></ul>

## RANGE STATEMENT

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ACM include:	air or abrasive blasting
	<ul style="list-style-type: none"><li>any vacuum cleaning equipment not specifically designed for safe work with asbestos.</li></ul>
<i>Environmental requirements</i> are to cover workplace quality management and include:	<ul style="list-style-type: none"><li>clean-up protection</li><li>stormwater protection</li><li>waste management.</li></ul>
<i>Types of fire</i> includes:	<ul style="list-style-type: none"><li>electrical, chemical, gas, mechanical, paper, wood or natural fire.</li></ul>
<i>Fire equipment</i> includes:	<ul style="list-style-type: none"><li>breathing apparatus</li><li>fire extinguishers</li><li>fire hydrant and hoses</li><li>fire reel</li><li>fire truck</li><li>manual firefighting instruments, such as fire blankets.</li></ul>
<i>Emergency response and evacuation procedures</i> include:	<ul style="list-style-type: none"><li>emergencies, such as fire, toxic and/or flammable vapours emission, vehicle/mobile plant accident, structural collapse, chemical spill and injury to personnel</li><li>extinguishing fires, organisational first aid requirements and evacuation.</li></ul>

## Unit Sector(s)

Unit sector	Construction
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## Co-requisite units

Co-requisite units	Nil
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## Functional area

### Functional area

## CPCCR13012A Perform basic rigging

### Modification History

Not Applicable

### Unit Descriptor

**Unit descriptor** This unit of competency specifies the outcomes required to erect or install permanent steel structures, dismantle structural steel and move or locate plant and equipment using a range of basic rigging and dogging techniques. It includes load distribution and calculation.

### Application of the Unit

**Application of the unit** This unit supports the attainment of skills and knowledge to perform rigging duties for erection and installation of steel structures and move plant and equipment, which includes working with others and as a member of a team.

### Licensing/Regulatory Information

Not Applicable

### Pre-Requisites

#### Prerequisite units

CPCCD03011A	Perform dogging
CPCCOHS2001A	Apply OHS requirements, policies and procedures in the construction industry



## Employability Skills Information

**Employability skills** This unit contains employability skills.

## Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.

Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.

## Elements and Performance Criteria

### ELEMENT

### PERFORMANCE CRITERIA

- | ELEMENT              | PERFORMANCE CRITERIA  |
|----------------------|---|
| 1. Plan and prepare. | <ul style="list-style-type: none"><li>1.1. Work instructions, including plans, specifications, quality requirements and operational details are obtained for relevant <b><i>information</i></b>, confirmed and applied for <b><i>scope of work</i></b>.</li><li>1.2. <b><i>Safety (OHS)</i></b> requirements are followed in accordance with safety plans and policies.</li><li>1.3. Signage and barricade requirements are identified and implemented.</li><li>1.4. Plant, <b><i>tools and equipment</i></b> selected to carry out tasks are consistent with the requirements of the job, checked for serviceability and any faults are rectified or reported prior to commencement.</li><li>1.5. Material quantity requirements are calculated in accordance with plans, specifications and <b><i>quality requirements</i></b>.</li><li>1.6. Materials appropriate to the work application are identified, obtained, prepared, safely handled and located ready for use.</li><li>1.7. <b><i>Environmental requirements</i></b> are identified for the project in accordance with environmental plans and <b><i>statutory and regulatory authority</i></b> obligations and</li></ul> |

ELEMENT	PERFORMANCE CRITERIA
	applied.
2. Select equipment.	<p data-bbox="579 349 1307 421">2.1. Resources, materials and equipment are selected and inspected for compliance with job specifications.</p> <p data-bbox="579 432 1187 504">2.2. Lifting equipment is inspected according to manufacturer specifications.</p> <p data-bbox="579 515 1294 622">2.3. Lifting equipment identified as inconsistent with manufacturer specifications is labelled, rejected and disposed of to prevent its use in any circumstance.</p>
3. Connect equipment.	<p data-bbox="579 640 1265 712">3.1. Loads and slings are slung to protect the load and associated equipment.</p> <p data-bbox="579 723 1174 795">3.2. Whole or part loads are secured to prevent uncontrolled movement.</p> <p data-bbox="579 806 1310 878">3.3. Slings, or parts of slings, are attached to the load and positioned to ensure safe movement.</p> <p data-bbox="579 889 1297 960">3.4. Slings, or parts of slings, are attached to hook while the hoist wire is vertical.</p> <p data-bbox="579 972 1273 1001">3.5. Tag lines are attached to the load where specified.</p> <p data-bbox="579 1012 1262 1084">3.6. Test lifts are performed to ensure safe and secure movement of the load where specified.</p>
4. Move and position loads.	<p data-bbox="579 1102 1246 1173">4.1. Load destination is determined and landing area prepared to accept the load.</p> <p data-bbox="579 1184 1270 1256">4.2. Lifting or pulling device is assembled and erected where specified.</p> <p data-bbox="579 1267 1257 1375">4.3. Load is safely moved to required destination and secured in position to client specifications or job requirements.</p> <p data-bbox="579 1386 1197 1458">4.4. Standard communication signals are used to coordinate safe movement of the load.</p>
5. Remove rigging equipment.	<p data-bbox="579 1476 1192 1547">5.1. Lifting/moving equipment and packing are dismantled, lowered and inspected for wear.</p> <p data-bbox="579 1559 1305 1630">5.2. Logbook and site records are completed to company requirements.</p>
6. Clean up.	<p data-bbox="579 1648 1283 1756">6.1. Work area is cleared and materials disposed of, reused or recycled in accordance with legislation, regulations, codes of practice and job specification.</p> <p data-bbox="579 1767 1278 1910">6.2. Plant, tools and equipment are cleaned, checked, maintained and stored in accordance with manufacturer recommendations and standard work practices.</p> <p data-bbox="579 1921 1246 1993">6.3. Work completion procedures are applied and relevant personnel notified that work is finished.</p>

## Required Skills and Knowledge

### REQUIRED SKILLS AND KNOWLEDGE

This section describes the skills and knowledge required for this unit.

#### Required skills

Required skills for this unit are:

- communication skills to:
  - determine requirements
  - follow instructions
  - notify completion of work
  - read and interpret:
    - documentation from a variety of sources
    - drawings and specifications
  - report faults
  - use language and concepts appropriate to cultural differences
  - use and interpret non-verbal communication, such as hand signals
  - written skills to complete logbooks, site records and relevant work completion procedures
- identifying and accurately reporting to appropriate personnel any faults in tools, equipment or materials
- numeracy skills to apply calculations
- organisational skills, including the ability to plan and set out work
- teamwork skills to work with others to action tasks and relate to people from a range of cultural and ethnic backgrounds and with varying physical and mental abilities
- technological skills to:
  - use a range of mobile technology, such as two-way radio and mobile phones
  - voice and hand signals to access and understand site-specific instructions.

#### Required knowledge

Required knowledge for this unit is:

- basic rigging equipment and techniques
- crane operations and limitations
- designs and functions of lifting equipment
- general construction terminology
- job safety analysis (JSA) and safe work method statements

## REQUIRED SKILLS AND KNOWLEDGE

- material safety data sheets (MSDS)
- materials storage and environmentally friendly waste management
- plans, drawings and specifications
- plant, tools and equipment types, characteristics, uses and limitations
- processes for the calculation of material requirements
- relevant Acts, regulations and codes of practice
- signalling methods and communications
- workplace and equipment safety requirements.

## Evidence Guide

### EVIDENCE GUIDE

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The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.

#### Overview of assessment

This unit of competency could be assessed in the workplace or a close simulation of the workplace environment, provided that simulated or project-based assessment techniques fully replicate construction workplace conditions, materials, activities, responsibilities and procedures.

#### Critical aspects for assessment and evidence required to demonstrate competency in this unit

A person who demonstrates competency in this unit must be able to provide evidence of the ability to:

- locate, interpret and apply of relevant information, standards and specifications
- comply with site safety plan and OHS legislation, regulations and codes of practice applicable to workplace operations
- comply with organisational policies and procedures, including quality requirements
- safely and effectively use tools, plant and equipment
- communicate and work effectively and safely with others
- complete one of the following:
  - install and use a fall arrest system to sling,

## EVIDENCE GUIDE

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receive, place and brace a minimum 16 square metre module of structural steel in the correct sequence a minimum of 5 metres high

- set up, place, install and brace perimeter safety screen and jump for two floors and a loading bay
- skid, locate and install heavy industrial equipment using winches and creeper skids for at least one tonne of plant.

### Context of and specific resources for assessment

This competency is to be assessed using standard and authorised work practices, safety requirements and environmental constraints.

Assessment of essential underpinning knowledge will usually be conducted in an off-site context.

Assessment is to comply with relevant regulatory or Australian standards' requirements.

Resource implications for assessment include:

- an induction procedure and requirement
- realistic tasks or simulated tasks covering the mandatory task requirements
- relevant specifications and work instructions
- tools and equipment appropriate to applying safe work practices
- support materials appropriate to activity
- workplace instructions relating to safe work practices and addressing hazards and emergencies
- material safety data sheets
- research resources, including industry related systems information.

Reasonable adjustments for people with disabilities must be made to assessment processes where required. This could include access to modified equipment and other physical resources, and the provision of appropriate assessment support.

### Method of assessment

Assessment methods must:

- satisfy the endorsed Assessment Guidelines of the Construction, Plumbing and Services Training Package

## EVIDENCE GUIDE

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- include direct observation of tasks in real or simulated work conditions, with questioning to confirm the ability to consistently identify and correctly interpret the essential underpinning knowledge required for practical application
- reinforce the integration of employability skills with workplace tasks and job roles
- confirm that competency is verified and able to be transferred to other circumstances and environments.

Validity and sufficiency of evidence requires that:

- competency will need to be demonstrated over a period of time reflecting the scope of the role and the practical requirements of the workplace
- where the assessment is part of a structured learning experience the evidence collected must relate to a number of performances assessed at different points in time and separated by further learning and practice, with a decision on competency only taken at the point when the assessor has complete confidence in the person's demonstrated ability and applied knowledge
- all assessment that is part of a structured learning experience must include a combination of direct, indirect and supplementary evidence.

Assessment processes and techniques should as far as is practical take into account the language, literacy and numeracy capacity of the candidate in relation to the competency being assessed.

Supplementary evidence of competency may be obtained from relevant authenticated documentation from third parties, such as existing supervisors, team leaders or specialist training staff.

## Range Statement

### RANGE STATEMENT

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The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.

***Information*** includes:

- diagrams or sketches
- instructions issued by authorised organisational or external personnel
- manufacturer specifications and instructions, where specified
- MSDS
- memos
- regulatory and legislative requirements pertaining to performing basic rigging
- relevant Australian standards
- safe work procedures relating to performing basic rigging
- signage
- verbal, written and graphical instructions
- work bulletins
- work schedules, plans and specifications.

***Scope of work:***

- planning and preparation includes work site inspection, equipment defect identification, assessment of conditions and hazards and determination of work requirements
- calculations include load charts, fleet angles, diverter sheaves, lead loads, head loads, load angle factors, multiple fall, load share, pre-cast compliance charts and safe working loads
- sling types include chain, flexible steel wire rope, and natural or synthetic fibre
- load slinging methods are to include straight sling, adjustable sling, reeved sling and inclined sling
- lifting devices include shackles, turn buckles, jacks, chain winches, hand operated creeper winches, chain blocks, pulley blocks, come alongs, air winches, trolleys, eye bolts, rigging screws, lifting lugs, lifting clutches and snatch blocks

## RANGE STATEMENT

**Safety (OHS)** is to be in accordance with state and territory legislation and regulations and project safety plan and may include:

- types of cranes include fixed cranes, tower cranes, hydraulic mobile cranes, lattice boom mobile cranes, slewing cranes, non-slewing cranes and gantry cranes.
- emergency procedures, including extinguishing fires, organisational first aid requirements and evacuation
- handling activities that may require the assistance of others or the use of manual or mechanical lifting devices where size, weight or other issues, such as a disability are a factor
- hazard control
- hazardous materials and substances, including cement and curing agents
- organisational first aid
- PPE prescribed under legislation, regulations and workplace policies and practices
- safe operating procedures, including the conduct of operational risk assessment and treatments associated with:
  - earth leakage boxes
  - lighting
  - power cables, including overhead service trays, cables and conduits
  - restricted access barriers
  - surrounding structures
  - traffic control
  - trip hazards
  - working at heights
  - work site visitors and the public
  - working in confined spaces
  - working in proximity to others
- use of firefighting equipment
- use of tools and equipment
- workplace environmental requirements and safety.
- include:
  - automatic levels
  - drifts
  - hammers
  - podgers spanners

**Tools and equipment:**



## RANGE STATEMENT

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- shifting spanners
- sledge hammers
- spirit levels
- tape measures
- wedges
- wrenches
- may include:
  - angle grinders
  - elevated work platforms
  - explosive power tools
  - laser levels
  - oxy-acetylene equipment
  - pneumatic tools
  - scaffolding
  - skids
  - water levelling equipment.

***Quality requirements*** include relevant regulations, including:

- Australian standards
- internal company quality policy and standards
- manufacturer specifications
- workplace operations and procedures.

***Environmental requirements*** include:

- clean-up management
- dust and noise
- vibration
- waste management.

***Statutory and regulatory authorities*** include:

- federal, state and local authorities administering the applicable Acts, regulations and codes of practice.

## Unit Sector(s)

**Unit sector**

Construction

## **Functional area**

### **Functional area**

# CPCCSC2002A Erect and dismantle basic scaffolding

## Modification History

Not Applicable

## Unit Descriptor

### Unit descriptor

This unit of competency specifies the outcomes required to erect and dismantle a range of modular scaffolding systems to provide work platforms for construction purposes.

It includes edge protection, access ways and falsework (scaffold support systems for formwork).

## Application of the Unit

### Application of the unit

This unit supports the attainment of skills and knowledge to erect and dismantle a range of basic scaffolding systems, which includes working with others and as a member of a team.

## Licensing/Regulatory Information

Not Applicable

## Pre-Requisites

### Prerequisite units

CPCCOHS2001A

Apply OHS requirements, policies and procedures in the construction industry

## Employability Skills Information

**Employability skills** This unit contains employability skills.

## Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.

Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.

## Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Plan and prepare.	<p>1.1. Work instructions, including plans, specifications, quality requirements and operational details are obtained from relevant <b><i>information</i></b>, confirmed and applied to the <b><i>scope of work</i></b> performed.</p> <p>1.2. <b><i>Safety (OHS)</i></b> requirements are followed in accordance with safety plans and policies.</p> <p>1.3. Signage and barricade requirements are identified and implemented.</p> <p>1.4. Plant, <b><i>tools and equipment</i></b> selected to carry out tasks are consistent with the requirements of the job, checked for serviceability and any faults or concerns regarding <b><i>quality requirements</i></b> are rectified or reported prior to commencement.</p> <p>1.5. Materials appropriate to the work application are identified, obtained, prepared, safely handled and located ready for use.</p> <p>1.6. <b><i>Environmental requirements</i></b> are identified for the project in accordance with environmental plans and <b><i>statutory and legislative authority</i></b> obligations and applied.</p>
2. Whip, tie, splice and inspect ropes.	<p>2.1. Whipping cord and fibre rope are inspected for damage and wear.</p> <p>2.2. Designated rope ends are whipped in accordance</p>

ELEMENT	PERFORMANCE CRITERIA
3. Erect scaffolding.	<p>with regulations and project specifications.</p> <p>2.3. Designated rope ends are spliced in accordance with regulations and project specifications.</p> <p>2.4. Bends and hitches are applied and inspected in accordance with project specifications.</p> <p>3.1. Purpose for scaffolding is confirmed and associated work tasks are identified.</p> <p>3.2. Expected loading on scaffold and supporting structure is determined using load tables and manufacturer specifications.</p> <p>3.3. Site access and egress routes are identified.</p> <p>3.4. Scaffolding and components are selected and inspected, and damaged components are labelled and rejected.</p> <p>3.5. Sole board/base plate is selected in accordance with regulations, legislation, codes of practice and manufacturer specifications.</p> <p>3.6. Scaffolding is set out and erected in accordance with regulatory and manufacturer requirements.</p> <p>3.7. Static lines are erected and installed where specified in accordance with regulatory requirements.</p> <p>3.8. Lifting device is assembled and erected where specified.</p>
4. Inspect, repair and alter erected scaffolding.	<p>4.1. Erected modular scaffolding is inspected for damage, corrosion, wear and compatibility.</p> <p>4.2. Current use of scaffolding is checked against original design and is in accordance with regulations and specifications.</p> <p>4.3. Scaffolding stability is inspected and confirmed.</p> <p>4.4. Alteration or repair is carried out where specified.</p> <p>4.5. Inspection log and handover is completed and dated, ready for signing by a certified scaffolder.</p>
5. Dismantle scaffolding.	<p>5.1. Scaffolding is isolated and appropriately signed and barricaded to ensure safe dismantling.</p> <p>5.2. Scaffolding is dismantled using reverse procedure as for erection.</p>
6. Clean up.	<p>6.1. Work area is cleared and materials disposed of, reused or recycled in accordance with legislation, regulations, codes of practice and job specification.</p> <p>6.2. Plant, tools and equipment are cleaned, checked, maintained and stored in accordance with</p>

**ELEMENT****PERFORMANCE CRITERIA**

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manufacturer recommendations and standard work practices.

## Required Skills and Knowledge

### REQUIRED SKILLS AND KNOWLEDGE

This section describes the skills and knowledge required for this unit.

#### Required skills

Required skills for this unit are:

- communication skills to:
  - determine requirements
  - follow instructions
  - read and interpret:
    - documentation from a variety of sources
    - drawings and specifications
  - report faults
  - use language and concepts appropriate to cultural differences
  - use and interpret non-verbal communication, such as hand signals
  - written skills to complete inspection log and handover
- identifying and accurately reporting to appropriate personnel any faults in tools, equipment or materials
- numeracy skills to apply measurements and calculations
- organisational skills, including the ability to plan and set out work
- teamwork skills to work with others to action tasks and relate to people from a range of cultural and ethnic backgrounds and with varying physical and mental abilities
- technological skills to:
  - use a range of mobile technology, such as two-way radio and mobile phones
  - voice and hand signals to access and understand site-specific instructions.

#### Required knowledge

Required knowledge for this unit is:

- general construction terminology
- job safety analysis (JSA) and safe work method statements
- lifting devices

## REQUIRED SKILLS AND KNOWLEDGE

- material safety data sheets (MSDS)
- materials storage and environmentally friendly waste management
- plans, drawings and specifications
- plant, tools and equipment types, characteristics, uses and limitations
- processes for the calculation of material requirements
- quality requirements
- relevant Acts, regulations and codes of practice
- scaffolding equipment and techniques
- workplace and equipment safety requirements.

## Evidence Guide

### EVIDENCE GUIDE

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The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.

#### Overview of assessment

This unit of competency could be assessed in the workplace or a close simulation of the workplace environment, provided that simulated or project-based assessment techniques fully replicate construction workplace conditions, materials, activities, responsibilities and procedures.

#### Critical aspects for assessment and evidence required to demonstrate competency in this unit

A person who demonstrates competency in this unit must be able to provide evidence of the ability to:

- locate, interpret and apply of relevant information, standards and specifications
- comply with site safety plan and OHS legislation, regulations and codes of practice applicable to workplace operations
- comply with organisational policies and procedures, including quality requirements
- safely and effectively use tools, plant and equipment
- communicate and work effectively and safely with others

## EVIDENCE GUIDE

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- complete whipping, splicing, tying and inspecting of five fibre ropes in accordance with regulations
- complete planning, erection and dismantling of a modular scaffolding system, in accordance with JSA and safe work method statements and regulations, including a minimum of:
  - five bays with an internal and external return
  - four lifts, including ties
  - ladder and stair access
  - fall and edge protection.

### Context of and specific resources for assessment

This competency is to be assessed using standard and authorised work practices, safety requirements and environmental constraints.

Assessment of essential underpinning knowledge will usually be conducted in an off-site context.

Assessment is to comply with relevant regulatory or Australian standards' requirements.

Resource implications for assessment include:

- an induction procedure and requirement
- realistic tasks or simulated tasks covering the mandatory task requirements
- relevant specifications and work instructions
- tools and equipment appropriate to applying safe work practices
- support materials appropriate to activity
- workplace instructions relating to safe work practices and addressing hazards and emergencies
- material safety data sheets
- research resources, including industry related systems information.

Reasonable adjustments for people with disabilities must be made to assessment processes where required. This could include access to modified equipment and other physical resources, and the provision of appropriate assessment support.

### Method of assessment

Assessment methods must:



## EVIDENCE GUIDE

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- satisfy the endorsed Assessment Guidelines of the Construction, Plumbing and Services Training Package
- include direct observation of tasks in real or simulated work conditions, with questioning to confirm the ability to consistently identify and correctly interpret the essential underpinning knowledge required for practical application
- reinforce the integration of employability skills with workplace tasks and job roles
- confirm that competency is verified and able to be transferred to other circumstances and environments.

Validity and sufficiency of evidence requires that:

- competency will need to be demonstrated over a period of time reflecting the scope of the role and the practical requirements of the workplace
- where the assessment is part of a structured learning experience the evidence collected must relate to a number of performances assessed at different points in time and separated by further learning and practice, with a decision on competency only taken at the point when the assessor has complete confidence in the person's demonstrated ability and applied knowledge
- all assessment that is part of a structured learning experience must include a combination of direct, indirect and supplementary evidence.

Assessment processes and techniques should as far as is practical take into account the language, literacy and numeracy capacity of the candidate in relation to the competency being assessed.

Supplementary evidence of competency may be obtained from relevant authenticated documentation from third parties, such as existing supervisors, team leaders or specialist training staff.

## Range Statement

### RANGE STATEMENT

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The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.

***Information*** includes:

- diagrams or sketches
- instructions issued by authorised organisational or external personnel
- manufacturer specifications and instructions, where specified
- MSDS
- memos
- regulatory and legislative requirements pertaining to erecting and dismantling modular scaffolding
- relevant Australian standards
- safe work procedures relating to erecting and dismantling modular scaffolding
- signage
- verbal, written and graphical instructions
- work bulletins
- work schedules, plans and specifications.

***Scope of work:***

- planning and preparation includes work site inspection, equipment defect identification, assessment of conditions and hazards, and determination of work requirements
- erection of scaffolding is to include placement, sequencing, squaring, levelling, tying to structure, and the reverse for dismantling
- purposes of scaffolding include provision of work platforms, edge protection, access ways, falsework, grandstands and covered walkways
- lifting devices include cantilevered hoists and gin wheels
- establishment of footings includes review of JSA and safe work method statements to determine the bearing capacity of ground or working surfaces
- whipping methods include common, west countryman, American and sail makers

## RANGE STATEMENT

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**Safety (OHS)** is to be in accordance with state and territory legislation and regulations and project safety plan and may include:

- splicing methods include end splice and eye splice
- types of bends and hitches include clove hitch around a tube, rolling hitch around a tube, single bow line, timber hitch and half hitch around a plank, and sheet bend to another rope
- alteration and repair may be required due to storm damage, accidents, misuse and process changes.
- emergency procedures, including extinguishing fires, organisational first aid requirements and evacuation
- handling activities that may require the assistance of others or the use of manual or mechanical lifting devices where size, weight or other issues, such as a disability are a factor
- hazard control
- hazardous materials and substances, including cement and curing agents
- organisational first aid
- PPE prescribed under legislation, regulations and workplace policies and practices
- safe operating procedures, including the conduct of operational risk assessment and treatments associated with:
  - earth leakage boxes
  - lighting
  - power cables, including overhead service trays, cables and conduits
  - restricted access barriers
  - surrounding structures
  - traffic control
  - trip hazards
  - working at heights
  - work site visitors and the public
  - working in confined spaces
  - working in proximity to others
- use of firefighting equipment
- use of tools and equipment
- workplace environmental requirements and safety.

## RANGE STATEMENT

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### *Tools and equipment:*

- include:
  - adjustable base plates
  - bends and hitches
  - box spanners
  - braces
  - bracket scaffolds (tank and formwork)
  - cantilevered hoists (materials only with maximum capacity of 500kg)
  - couplers and accessories
  - fibre ropes
  - guard rails
  - hammers
  - ledgers
  - mesh guards
  - mid rails
  - modular and prefabricated scaffolds
  - podgers hammers
  - prefabricated components
  - scaffold belts
  - scaffolding planks
  - spirit levels
  - stairs or ladders
  - standards
  - steel and aluminium tubes
  - tape measures
  - torpedo levels
  - transoms
  - wire nips
  - wrenches
- may include:
  - gin wheels
  - safety nets
  - shovels
  - spanners
  - static lines.

*Quality requirements* include relevant regulations, including:

- Australian standards
- internal company quality policy and standards
- manufacturer specifications

## RANGE STATEMENT

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*Environmental requirements*  
include:

- workplace operations and procedures.
- clean-up management
- dust and noise
- vibration
- waste management.

*Statutory and regulatory authorities* include:

- federal, state and local authorities administering the applicable Acts, regulations and codes of practice.

## Unit Sector(s)

Unit sector

Construction

## Functional area

Functional area

## FBPAUD4001 Assess compliance with food safety programs

### Modification History

Release	Comments
Release 1	This version released with the FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

### Application

This unit of competency describes the skills and knowledge required to assess compliance against an approved food safety program, where the program is supported by a prescriptive template or tool, or where compliance is checked against a food safety program that has been validated by a technical expert.

This unit applies to individuals who undertake regulatory, commercial or internal audits.

This unit supports relevant legislation, including food standards included in the Australia New Zealand Food Standards Code, industry codes of practice relating to validation and verification of a food safety program, and the audit requirements detailed in the National Regulatory Food Safety Auditor Guideline and Policy, and should be read in conjunction with these documents.

Regulatory food safety audits in Australia are covered by state/territory legislative frameworks that support the requirements of the National Food Safety Audit Policy 2009.

### Pre-requisite Unit

Nil

### Unit Sector

Food safety auditing (AUD)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Plan the audit	1.1 Develop an audit plan to meet the audit scope 1.2 Ensure the plan is capable of delivering the required outcomes

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	<p>within resource and time allocations</p> <p>1.3 Ensure the plan includes audit purpose, scope and relevant templates or approved food safety program</p> <p>1.4 Identify activities and responsibilities for the audit</p> <p>1.5 Identify audit timing, including timetable for each stage of the audit</p> <p>1.6 Identify resource, personnel and reporting requirements</p> <p>1.7 Identify follow-up and completion procedures</p> <p>1.8 Identify and establish communication protocols to facilitate the effective exchange of information and suited to the auditee environment</p>
2. Confirm that the food business has documented required preliminary work	<p>2.1 Define the food and the method of distribution</p> <p>2.2 Identify customers and intended use of food</p> <p>2.3 Describe and document the process</p> <p>2.4 Ensure the food business has checked their documentation for accuracy and completeness</p>
3. Confirm the food safety program is supported by a tool or template or has been validated	<p>3.1 Assess the documented food safety program and related procedures and prerequisite programs to confirm that they have a prescriptive tool or have been validated by a technical expert</p> <p>3.2 Review the food business's method of identifying and analysing food safety hazards</p> <p>3.3 Select templates, or the approved food safety program, to meet audit scope</p> <p>3.4 Adapt templates, or the approved food safety program, to suit the needs of the business without adversely affecting food safety</p> <p>3.5 Review documented verification records to confirm that the requirements of the food safety program are being met</p> <p>3.6 Assess corrective actions required, where processes are identified as not meeting targets or critical limits, to confirm they meet the requirements of the template or food safety program</p> <p>3.7 Assess food safety prerequisite programs to confirm they are appropriate for the food business or industry sector to maintain a safe food environment</p> <p>3.8 Review food safety program documents to confirm currency, accuracy and adequacy to facilitate maintenance of an adequate food</p>

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	safety program
4. Collect evidence to review and assess implementation of food safety programs	<p>4.1 Collect evidence to confirm that documented programs and procedures are working effectively, reflect actual practice and are consistently applied</p> <p>4.2 Collect evidence to confirm that food safety monitoring and corrective actions are carried out according to procedure</p> <p>4.3 Collect evidence to confirm that safety prerequisite programs are effective and consistently followed</p> <p>4.4 Collect evidence to confirm that food safety records are completed and provide an accurate record of events</p> <p>4.5 Collect evidence to confirm that records are accessed and analysed to confirm effective program maintenance according to the template or food safety program</p> <p>4.6 Collect evidence to confirm that food safety skills and knowledge of food business personnel is commensurate with their work role</p> <p>4.7 Collect evidence to confirm that the food safety program has been internally monitored and assessed, updated and improved by a technical expert</p>
5. Manage the audit process	<p>5.1 Monitor audit progress against the audit plan, and identify and address any variation to plan</p> <p>5.2 Identify and negotiate circumstances requiring the audit plan to be adjusted in a timely manner</p> <p>5.3 Ensure audit addresses audit scope and is conducted within time and resource constraints to meet quality and professional standards</p> <p>5.4 Review the audit process to identify opportunities for improvement</p>
6. Consolidate audit outcomes	<p>6.1 Analyse and assess audit evidence to identify any areas of non-compliance with legislation and/or the food safety program</p> <p>6.2 Identify and classify non-conformities as agreed by the audit plan</p> <p>6.3 Report non-conformities according to agreed client and/or legislative requirements</p> <p>6.4 Prepare and submit audit reports and/or certificates or present as required to meet regulatory and client requirements</p> <p>6.5 Ensure a corrective action implementation plan defining proposed actions and timelines developed by the auditee is reviewed to confirm</p>



Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	that template or food safety program requirements are met 6.6 Review audit findings to confirm that evidence is sufficient as defined by the template or approved food safety program
7. Confirm and close out corrective actions	7.1 Monitor and verify implementation and effectiveness of corrective action against the template or the approved food safety program 7.2 Maintain audit records to record corrective actions

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"> <li>Interpret food safety guidelines and regulations</li> <li>Interpret product quality and workplace procedures</li> </ul>
Navigate the world of work	<ul style="list-style-type: none"> <li>Apply knowledge of regulations and policies relevant to workplace food safety programs</li> <li>Monitor adherence to legal and regulatory standards and responsibilities</li> </ul>
Get the work done	<ul style="list-style-type: none"> <li>Plan, monitor and manage relatively complex, routine and non-routine tasks, making adjustments as necessary</li> <li>Use digital tools to monitor processes and access and organise complex data</li> </ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPAUD4001 Assess compliance with food safety	FDFAU4001A Assess compliance with food safety programs	Updated to meet Standards for Training Packages	Equivalent unit

programs			
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## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## Assessment Requirements for FBPAUD4001 Assess compliance with food safety programs

### Modification History

Release	Comments
Release 1	This version released with the FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

### Performance Evidence

An individual demonstrating competency in this unit must satisfy all of the elements and performance criteria of this unit.

There must be evidence that the individual has assessed a minimum of two different food safety programs, where the program is supported by a prescriptive template or tool, or where compliance is checked against a food safety program that has been validated by a technical expert, including:

- confirming that the food safety program and/or template is appropriate to the activities of the business and complies with requirements of the Australia New Zealand Food Standards Code
- reviewing food safety program records to assess compliance against the approved food safety program and/or template
- collecting and analysing evidence to confirm that the food safety program is consistently followed and controls all critical risks
- identifying circumstances where variation or customising of the template or food safety program requires further validation
- submitting at least one non-compliance report to clearly identify the aspects of the food safety program that have broken down or need further development in order to prevent recurrence.

### Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- Australia New Zealand Food Standards Code, including information on labelling and product ingredients, relevant to the business
- required content and scope of food safety programs as defined in the National Food Safety Standard 3.2.1 or other relevant standards

- purpose and minimum requirements of risk-based approaches to managing food safety hazards, including the role of prescriptive templates or approved food safety programs in supporting a risk-based approach and the process used to validate these tools
- guidelines on implementing industry templates or approved food safety programs
- legal requirements of food businesses, including underweights, true and accurate descriptions, and accuracy of claims (e.g. organic, free range)
- legal liability of auditors and protection against litigation and professional practice issues, including the circumstances under which an auditor could be prosecuted, and insurance requirements
- audit activities and principles, including guidelines on audit stages and activities as outlined in International Organization for Standardization (ISO) 19011:2011
- existence of international standards that cover traceability of food and the food chain supply, consumer product recalls, quality and food safety management systems
- personal attributes required of food safety auditors, including those outlined in ISO 19011:2011, and additional system owner requirements where required
- role, responsibilities and powers of enforcement agencies, authorised officers and commercial auditors, including reporting responsibilities, legal liability of auditors and delegation of authority to commercial auditors as may apply in some states and territories
- information handling and management system protocols, including rights of access to information, maintenance of confidentiality of audit information and reports and information dissemination requirements
- evidence appropriate for use in audit processes, including the difference between objective and hearsay evidence and methods for recording and managing evidence to provide reliable reference information in the event that evidence is challenged
- vocabulary and terms relating to food safety programs, including terms and jargon to describe technical processes, industry standards and common biological and chemical terms
- common biological, physical and chemical hazards that may occur in the food business, and appropriate methods of control and critical limits as outlined in the approved food safety program or template
- the impact of (1) the design and construction of premises and (2) the selection, application and condition of equipment, on food safety as defined in Food Safety Standard 3.2.3
- role of prerequisite programs in controlling hazards, including the relationship between prerequisite programs and risk-based approaches to controlling food safety hazards
- circumstances, implications and responsibilities in the event that the auditee requests that the audit ceases
- circumstances and authority to initiate cessation of an audit
- methods to assess skill requirements and options to confirm that the responsible personnel within the food business have knowledge of the food safety and food hygiene relevant to the food business.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:

- skills must be demonstrated in a workplace setting or an environment that accurately represents a real workplace
- resources, equipment and materials:
  - plant and equipment that would typically be used in a commercial manufacturing business
- specifications:
  - food safety plans
  - food safety-related documentation required to implement and record the food safety plan
  - evidence and documentation relevant to processes that would typically be used to assess compliance with the food safety program.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volume Implementation Guides are found in VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# FBPAUD4002 Communicate and negotiate to conduct food safety audits

## Modification History

Release	Comments
Release 1	This version released with the FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

## Application

This unit of competency describes the skills and knowledge required to select and use appropriate methods of communication and negotiation to support audit processes.

This unit applies to individuals who undertake regulatory, commercial or internal audits. This includes taking responsibility for their own work and providing and communicating solutions to a range of predictable and sometimes unpredictable problems.

This unit supports relevant legislation, including food standards included in the Australia New Zealand Food Standards Code, industry codes of practice relating to validation and verification of a food safety program, and the audit requirements detailed in the National Regulatory Food Safety Auditor Guideline and Policy, and should be read in conjunction with these documents.

Regulatory food safety audits in Australia are covered by state/territory legislative frameworks that support the requirements of the National Food Safety Audit Policy 2009.

## Pre-requisite Unit

Nil

## Unit Sector

Food safety auditing (AUD)

## Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Develop a communication plan to support audit processes	1.1 Define and agree on scope of audit with client 1.2 Define, communicate and agree on roles and responsibilities of all personnel involved in the audit process, including those for whom English is a second language 1.3 Determine and agree on appropriate communication methods and protocols and specific arrangements, including reporting requirements 1.4 Document the communication plan
2. Select and use appropriate communication methods to conduct an audit	2.1 Select communication methods to take account of system owner and food business requirements, workplace culture and individual differences 2.2 Use appropriate communication methods to establish and maintain effective client relationships 2.3 Interpret information provided by the auditee in the context of the industry sector, language and culture of the business 2.4 Apply communication techniques to encourage all relevant parties to participate and express views throughout audit
3. Negotiate to achieve agreement on audit outcomes	3.1 Identify and clarify areas of disagreement over audit outcomes with the auditee 3.2 Seek understanding on actions to be followed to resolve outstanding issues 3.3 Treat auditee's views with respect 3.4 Explore options for resolving differences to reach agreement and meet audit timeline and resource parameters 3.5 Explore appropriate issue resolution strategies to increase the likelihood of agreement on steps required to conclude the audit 3.6 Manage the negotiation process to maintain constructive client relationships 3.7 Report any areas of continuing non-compliance that result from unresolved differences to system owners and appropriate authorities as required

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Writing	<ul style="list-style-type: none"><li>Document communication plan and audit outcomes in an appropriate format to support the food safety audit process</li></ul>
Get the work done	<ul style="list-style-type: none"><li>Use problem-solving skills to identify and analyse non-conformance</li></ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPAUD4002 Communicate and negotiate to conduct food safety audits	FDFAU4002A Communicate and negotiate to conduct food safety audits	Updated to meet Standards for Training Packages  Minor changes to Application and Performance Criteria to clarify intent	Equivalent unit

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>



## Assessment Requirements for FBPAUD4002 Communicate and negotiate to conduct food safety audits

### Modification History

Release	Comments
Release 1	This version released with the FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

### Performance Evidence

An individual demonstrating competency in this unit must satisfy all of the elements and performance criteria of this unit.

There must be evidence that the individual has used and applied appropriate communication methods in a food safety audit situation, with a minimum of two different clients or auditees, including:

- a situation where a number of workers have limited English language and literacy skills
- a conflict-based situation where the outcomes are contested by the auditee.

### Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- legislation that impacts on acceptable communication methods and conduct, including anti-discrimination, anti-harassment and privacy legislation
- language relevant to audit process, including terms and jargon to describe food safety legislation, technical processes and industry standards
- effective communication strategies to communicate at different stages of the audit, including to collect audit evidence, provide and present information, facilitate meeting processes, facilitate issue management and conflict resolution, and communicate audit findings
- confidentiality needs and expectations of food businesses
- strategies to communicate in culturally diverse environments
- dynamics of conflict and strategies to manage resolution
- the structure, authority levels and lines of reporting within a food business
- communication methods relevant to different groups and audiences
- reporting formats and requirements to meet client and legislative needs.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - skills must be demonstrated in a workplace setting or an environment that accurately represents a real workplace
- resources, equipment and materials:
  - case studies of audit findings, including those that involve workers with limited English language and literacy skills, and those that are disputed by the auditee
- relationships:
  - interactions with food production clients and workers.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## FBPAUD4003 Conduct food safety audits

### Modification History

Release	Comments
Release 1	This version released with the FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

### Application

This unit of competency describes the skills and knowledge required to verify and confirm validation of food safety programs in the context of food safety legislation and client requirements.

This unit applies to individuals who conduct on-site audits, and is relevant to regulatory and commercial food safety system auditors who may be auditing food safety in various contexts.

This unit supports relevant legislation, including food standards included in the Australia New Zealand Food Standards Code, industry codes of practice relating to validation and verification of a food safety program, and the audit requirements detailed in the National Regulatory Food Safety Auditor Guideline and Policy, and should be read in conjunction with these documents.

Regulatory food safety audits in Australia are covered by state/territory legislative frameworks that support the requirements of the National Food Safety Audit Policy 2009.

### Pre-requisite Unit

Nil

### Unit Sector

Food safety auditing (AUD)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Define the scope of the audit	1.1 Identify audit scope and define the extent of the audit to meet legislative and audit client requirements

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	<p>1.2 Ensure audit criteria meet legislative and client requirements</p> <p>1.3 Ensure the definition and levels of non-conformity and related reporting responsibilities are identified as consistent with legislative requirements and client requirements</p> <p>1.4 Identify evidence required to address audit scope and criteria, and select appropriate collection methods</p> <p>1.5 Review food safety management system documents to determine adequacy for the purposes of the audit</p>
2. Plan the audit	<p>2.1 Develop an audit plan that includes definitions and levels of non-conformity to meet the audit scope</p> <p>2.2 Identify activities and responsibilities for the audit</p> <p>2.3 Identify audit timing, including timetable for each stage of the audit</p> <p>2.4 Identify resource, personnel and reporting requirements</p> <p>2.5 Identify follow-up and completion procedures</p> <p>2.6 Establish communication protocols to facilitate the effective exchange of information and suited to the auditee environment</p>
3. Conduct the audit	<p>3.1 Communicate information on the audit scope and methodology in an effective and timely manner</p> <p>3.2 Follow stages and activities of the audit process</p> <p>3.3 Review methods used by the food business to carry out preliminary work, identify food safety hazards and assess level of risk to confirm that they are appropriate and correctly applied</p> <p>3.4 Identify and evaluate evidence used by the food business to support identification of control measures and establish control limits to determine adequacy and relevance</p> <p>3.5 Review methods used by the food business to control hazards and determine corrective action where processes are identified as not meeting targets or critical limits to confirm they are adequate, effective and appropriate</p> <p>3.6 Collect evidence to confirm that the documented food safety policies and procedures are working effectively, reflect actual practice and are consistently applied</p>
4. Manage the audit	4.1 Monitor audit progress against the audit plan, and identify and

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
process	<p>address any variation to plan</p> <p>4.2 Identify and negotiate circumstances requiring the audit plan to be adjusted in a timely manner</p> <p>4.3 Ensure audits address audit scope and are conducted within time and resource constraints to meet quality and professional standards</p> <p>4.4 Review the audit process to identify opportunities for improvement</p>
5. Consolidate audit outcomes	<p>5.1 Analyse and assess evidence to identify any areas of non-compliance with legislation and/or client requirements as appropriate to the audit scope</p> <p>5.2 Identify and classify non-conformities as agreed by the audit plan</p> <p>5.3 Report non-conformities according to agreed client and/or legislative requirements</p> <p>5.4 Communicate audit findings to the auditee</p> <p>5.5 Prepare and submit audit reports and/or certificates or present as required to meet regulatory and client requirements</p> <p>5.6 Review corrective actions proposed by the auditee in response to non-conformances for compliance with the template or food safety program</p> <p>5.7 Review audit findings to confirm that evidence is appropriate and sufficient and findings are accurate</p> <p>5.8 Review the food safety management system to identify areas of potential improvement of the system according to audit scope</p>
6. Confirm and close out corrective actions	<p>6.1 Monitor and verify implementation and effectiveness of corrective actions, and identify and address any variation to the food safety plan</p> <p>6.2 Maintain audit records to record corrective actions</p>

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
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Skill	Description
Reading	<ul style="list-style-type: none"><li>Interpret legislation and audit guidelines</li></ul>
Interact with others	<ul style="list-style-type: none"><li>Select and use communication strategies appropriate for purpose when interacting with work colleagues and customers</li></ul>
Get the work done	<ul style="list-style-type: none"><li>Use problem-solving skills to identify and analyse non-conformance</li></ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPAUD4003 Conduct food safety audits	FDFAU4003A Conduct food safety audits	Updated to meet Standards for Training Packages	Equivalent unit

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# Assessment Requirements for FBPAUD4003 Conduct food safety audits

## Modification History

Release	Comments
Release 1	This version released with the FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

## Performance Evidence

An individual demonstrating competency in this unit must satisfy all of the elements and performance criteria of this unit.

There must be evidence that the individual has effectively planned and conducted a food safety audit, for a minimum of one client, that complies with legal and client requirements, including:

- preparing audit documentation
- preparing a final audit report that refers to:
  - non-conformity reports
  - corrective action reports
  - follow-up reports
  - suggestions for improvements to the food safety management system and to the audit process.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- auditor roles and responsibilities, including:
  - audit activities and stages, including guidelines on audit stages and activities as outlined in International Organization for Standardization (ISO) 19011:2011
  - personal attributes required of food safety auditors, including those outlined in ISO 19011:2011, and additional client requirements where required
  - role, responsibilities and powers of enforcement agencies, authorised officers and commercial auditors, including reporting responsibilities, legal liability of auditors and delegation of authority to commercial auditors as may apply in some states and territories

- relevant competencies and certification/registration criteria and processes applying to both regulatory and commercial auditors
- audit management to develop and implement an audit against an agreed plan, including the scope/level of authority to revise the resource and allocate time allocations to take account of variation to plan
- food safety management systems, including:
  - purpose and intent of each element of a food safety management system
  - the underlying principles of risk-based approaches to controlling food safety hazards, including using critical control points as described in the Codex Alimentarius Guidelines
  - vocabulary and terms relating to food safety, including terms and jargon to describe technical processes, industry standards and common biological and chemical terms
  - food safety management system knowledge relevant to the system being audited, including system requirements, definitions and levels of non-compliance and related reporting responsibilities as defined by legal and management system requirements
  - the interaction between different types of management systems, including the impact of food safety decisions on other management systems, including workplace health and safety, quality, environmental risk management and animal welfare
  - technical knowledge required to assess the adequacy of the food safety management system performance and corrective actions
  - role of prerequisite programs in controlling hazards, including the relationship between prerequisite programs and risk-based approaches, including using critical control points to control food safety hazards
  - information handling and management system protocols, including rights of access to information, maintenance of confidentiality of audit information and reports and information dissemination requirements
- food safety legislation, including:
  - the purpose and intent of food safety legislation, including sources of information on importing country requirements and of requirements of countries and retailer driven systems in importing markets
  - the content covered by the Australia New Zealand Food Standards Code and/or other relevant standards
  - the structure and responsibilities of Commonwealth, state and territory government departments and local government to manage and implement food safety legislation, including where to find information on relevant Commonwealth, state/territory legislative requirements, product or industry sector legislation and regulations and import and export market requirements
  - the regulatory framework and specific legislation relevant to the audit, including relevant risk profiling or classification systems where they apply
  - sources of information on legislation and codes governing primary production and primary processing
  - requirements for scheduling and conducting further auditing as determined by food safety legislation and/or client system requirements



- legal liability of auditors and protection against litigation and professional practice issues, including the circumstances under which an auditor could be prosecuted, and insurance requirements
- the role of auditors when called on to provide evidence as a witness in court
- food safety audit processes, including:
  - preliminary work required to identify food to be covered by the food safety program, define the food and the method of distribution, identify customers and intended use of food, describe the process (flow chart) and check accuracy and completeness
  - methods used to identify food safety hazards and assess food safety hazard risk levels, taking account of severity and likelihood of occurrence
  - methods used to identify critical control points and establish critical limits, suited to the nature of the hazard, the requirements of the audit and the industry sector
  - methods used to validate control techniques and critical limits, including industry or sector codes of practice, technical standards and research
  - types of evidence, including the difference between objective and hearsay evidence and methods for recording and managing evidence to provide reliable reference information in the event that evidence is challenged
  - evidence collection methods, including record sampling and sample analysis, the evidence collection options relevant to a given audit situation, the reliability of each collection method and the range and extent of evidence collection methods required to ensure that audit outcomes are objective, consistent, fair and reliable
  - methods to assess skill requirements and options to confirm that the responsible personnel within the food business have the required skills and knowledge of food safety and food hygiene relevant to the food business
  - circumstances, implications and responsibilities in the event that the auditee requests that the audit ceases
  - circumstances and authority of an auditor to initiate cessation of an audit
  - the context in which audits are conducted, including workplace culture and preferred communication methods, industry, process and/or product knowledge and related jargon
  - requirements for recording audit information and reporting.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - skills must be demonstrated in a workplace setting or an environment that accurately represents a real workplace
- resources, equipment and materials:
  - plant and equipment that would typically be used in a commercial food manufacturing business
- specifications:
  - food safety plans

- food safety-related documentation typical of commercial food manufacturing businesses and used for the purpose of verification
- evidence and documentation relevant to processes that would typically be used by commercial manufacturing businesses to support validation processes.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## FBPAUD4004 Identify, evaluate and control food safety hazards

### Modification History

Release	Comments
Release 1	This version released with the FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

### Application

This unit of competency describes the skills and knowledge required to identify, evaluate and control food safety hazards for the purposes of validating specific control measures in a food safety program.

This unit applies to individuals who are responsible for auditing regulatory, commercial and internal food safety systems.

This unit supports relevant legislation, including food standards included in the Australia New Zealand Food Standards Code, industry codes of practice relating to validation and verification of a food safety program, and the audit requirements detailed in the National Regulatory Food Safety Auditor Guideline and Policy, and should be read in conjunction with these documents.

Regulatory food safety audits in Australia are covered by state/territory legislative frameworks that support the requirements of the National Food Safety Audit Policy 2009.

### Pre-requisite Unit

Nil

### Unit Sector

Food safety auditing (AUD)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Identify food safety hazards in a food	1.1 Identify biological food safety hazards that could present a risk in the food at the point of consumption by type, origin and food

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
business	<p>association, and assess to determine risk level and control requirements</p> <p>1.2 Identify allergenic food safety hazards that could present a risk in the food at the point of consumption, and assess to determine risk level and control requirements</p> <p>1.3 Identify intrinsic and extrinsic chemical food safety hazards that could present a risk in the food at the point of consumption, including toxin presence by type, origin and food association, and assess to determine risk level and control requirements</p> <p>1.4 Identify and assess physical food safety hazards that present a risk in food to determine control requirements</p>
2. Control food safety hazards in a food business	<p>2.1 Establish and validate processing hazards and related control measures and critical limits, monitoring and recording requirements to eliminate or reduce food safety hazards to acceptable levels</p> <p>2.2 Determine food storage and handling requirements necessary to eliminate or reduce food safety hazards</p> <p>2.3 Establish personal hygiene practices required to eliminate or reduce food safety hazards</p> <p>2.4 Establish cleaning and sanitation, housekeeping and pest control practices and procedures required to prevent or reduce food safety hazards</p> <p>2.5 Develop other prerequisite programs to eliminate or reduce food safety hazards to acceptable levels</p>

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"> <li>Interpret food safety legislation, practices and procedures</li> </ul>
Navigate the world of work	<ul style="list-style-type: none"> <li>Monitor adherence to legal and regulatory standards and responsibilities for self and others</li> </ul>

Skill	Description
Interact with others	<ul style="list-style-type: none"><li>• Select and use communication strategies appropriate for purpose when interacting with work colleagues and customers</li></ul>
Get the work done	<ul style="list-style-type: none"><li>• Analyse and use sensory information to determine food safety hazards in food handling operations</li><li>• Use problem-solving skills to identify and eliminate food safety hazards</li></ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPAUD4004 Identify, evaluate and control food safety hazards	FDFAU4004A Identify, evaluate and control food safety hazards	Updated to meet Standards for Training Packages	Equivalent unit

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# Assessment Requirements for FBPAUD4004 Identify, evaluate and control food safety hazards

## Modification History

Release	Comments
Release 1	This version released with the FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

## Performance Evidence

An individual demonstrating competency in this unit must satisfy all of the elements and performance criteria of this unit.

There must be evidence that the individual has identified, evaluated and controlled food safety hazards for a minimum of one multi-staged food safety program, including:

- selecting a food supply chain and identifying:
  - known biological food safety hazards that could occur across the chain and could present a risk in food at the point of consumption
  - likely patterns of growth and transmission from source of contamination to onset of consumer symptoms for pathogens likely to occur in the supply chain, including threshold levels
  - sources of chemical and physical contamination that could present a food safety risk at the time of food consumption, across the chain
  - impact and indicators of the presence of biological or chemical food safety hazards throughout the food chain
  - impact and indicators of the presence of allergens that may present a hazard
  - acceptable levels of contamination (these may be established by reference to relevant legislation and/or reference to system requirements)
- selecting one stage in the food supply chain (which must be a medium or high risk business or process) and establishing or validating control measures and verification records and procedures.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- Australia New Zealand Food Standards Code, including all chapters and sections relevant to the business

- sources of advice and research on foods, processing methods, production technologies and associated food safety hazards and control methods, including allergens
- ways in which food can cause illness and injury, including incidence and trends in food-borne illness
- intrinsic and extrinsic factors that can impact on food safety
- common biological food safety hazards – including toxin production and spore formation – and conditions required for survival and growth of each, including growth rates, transmission routes, likely carriers and threshold levels
- sources of information on acceptable and legal levels of biological, chemical and physical contamination
- food supply chains and potential of a breakdown in control at one point to impact other parts of the chain
- survival and growth requirements of biological food safety hazards
- common allergenic substances as described by the Australia New Zealand Food Standards Code and which may be additionally defined by system owners
- existence of international standards that cover traceability of food and the food chain supply, consumer product recalls, quality and food safety management systems
- common control methods necessary to eliminate or reduce the risk of food-borne illness to acceptable levels for each common pathogen, including the role of food storage, temperature control, preservation and process methods, traceability, product shelf-life, cleaning and sanitation, and pest control
- methods to detect and minimise the risk of food contamination by personal carriers, including convalescent and symptomless carriers, and related minimum legal illness reporting requirements and personal hygiene procedures
- the role of microbiological sampling, swabbing and testing in assessing the presence of biological contamination
- methods to determine the appropriateness and effectiveness of control measures and critical limits, including identifying the effect of control measures on the identified food safety hazard, method and feasibility of monitoring, the relationship to other control measures, and the severity of consequences and required corrective action in the event of failure of control
- types and causes of acute and chronic chemical food-borne illness
- the food safety and legal impact of chemical contamination, including residual agricultural and environmental chemicals, residual industrial contamination, including cleaning chemicals, and chemical contamination as a result of packaging methods and materials
- physical hazards that pose a food safety risk
- common control methods to eliminate or reduce the risk of chemical or physical food-borne illness to acceptable levels for each common form of chemical and physical food safety hazard, including:
  - hazardous chemicals that pose a food safety risk
  - common food allergens
  - physical hazards
- the role and requirements of prerequisite programs and procedures to eliminate, prevent or reduce biological, chemical and physical food safety hazards to acceptable levels.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - skills must be demonstrated in a workplace setting or an environment that accurately represents a real workplace
- resources, equipment and materials:
  - supply chain that includes at least one medium or high risk business and/or process and provides opportunity to apply a depth and breadth of food safety knowledge
- specifications:
  - access to food safety programs for a multi-staged food supply chain that includes the point of delivery to the consumer.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>



# FBPAUD5001 Audit bivalve mollusc growing and harvesting processes

## Modification History

Release	Comments
Release 1	This version released with the FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

## Application

This unit of competency describes the skills and knowledge required to support a food safety audit of food safety programs of bivalve mollusc producers. The unit covers on-shore and wild growing, harvesting, cleaning, post-harvest handling and storage, stock movement, depuration and wet storage.

This unit applies to individuals who are responsible for auditing a bivalve mollusc growing and harvesting process. These audits would typically occur within the context of auditing a food safety program that defines related prerequisite program requirements. The audits are supported by state, territory and Commonwealth government regulations prescribing processes and requirements relating to the production of bivalve molluscs.

This unit does not cover the skills and knowledge to audit the classification of growing areas.

This unit supports relevant legislation, including food standards included in the Australia New Zealand Food Standards Code, industry codes of practice relating to validation and verification of a food safety program, and the audit requirements detailed in the National Regulatory Food Safety Auditor Guideline and Policy, and should be read in conjunction with these documents.

Both regulatory and commercial audit system owners may specify additional certification requirements of auditors eligible to audit food safety programs within their system.

## Pre-requisite Unit

The prerequisite units of competency for this unit are:

- FBPAUD4002 Communicate and negotiate to conduct food safety audits
- FBPAUD4003 Conduct food safety audits
- FBPAUD4004 Identify, evaluate and control food safety hazards

## Unit Sector

Food safety auditing (AUD)

## Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Identify and assess food safety hazards and related control options for growing and harvesting bivalve molluscs	<p>1.1 Identify microbiological food safety hazards, by type and origin, that could present a risk when bivalve molluscs are consumed, and assess to determine risk level and control requirements</p> <p>1.2 Identify chemical food safety hazards that could present a risk in bivalve molluscs at the point of consumption, including toxin presence, by type, and assess to determine risk level and control requirements</p> <p>1.3 Identify control requirements and methods to ensure that bivalve molluscs meet food safety objectives</p>
2. Confirm that appropriate evidence supports validation of growing and harvesting bivalve molluscs	<p>2.1 Review validation evidence and records to confirm that an appropriate level of validation has been applied</p> <p>2.2 Identify and assess evidence used by the business to validate the process to confirm that it is credible and adequate to meet the food safety objective</p>
3. Verify bivalve mollusc growing and harvesting processes	<p>3.1 Identify, collect and review system records required to support verification against relevant shellfish quality programs</p> <p>3.2 Review business documentation and conduct inspections to confirm that facilities and equipment design and components comply with regulatory and business standards</p> <p>3.3 Review business documentation and conduct inspections to confirm that operational monitoring and testing procedures and frequency meet regulatory requirements, industry and business standards</p>

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"> <li>Interpret information relating to food safety and audit guidelines</li> </ul>
Navigate the world of	<ul style="list-style-type: none"> <li>Apply knowledge of regulations and policies relevant to food</li> </ul>

Skill	Description
work	<ul style="list-style-type: none"><li>safety standards in the workplace</li><li>Monitor adherence to legal and regulatory standards and responsibilities</li></ul>
Get the work done	<ul style="list-style-type: none"><li>Use problem-solving skills to identify and analyse non-conformance</li></ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPAUD5001 Audit bivalve mollusc growing and harvesting processes	FDFAU4005A Audit bivalve mollusc growing and harvesting processes	<p>Updated to meet Standards for Training Packages</p> <p>Unit code updated to reflect AQF level</p>	Equivalent unit

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## Assessment Requirements for FBPAUD5001 Audit bivalve mollusc growing and harvesting processes

### Modification History

Release	Comments
Release 1	This version released with the FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

### Performance Evidence

An individual demonstrating competency in this unit must satisfy all of the elements and performance criteria of this unit.

There must be evidence that the individual has actively participated in a minimum of one audit of a food safety program of a commercial bivalve mollusc growing, harvesting and processing operation, including:

- documenting evidence that details the review of the processor's hazard analysis critical control point (HACCP) plan to determine if the critical control points (CCPs) are correctly identified, valid, adequately monitored and verified.

Individuals must also show evidence of completing audit scenarios that include at least one audit involving relaying depuration and wet storage.

### Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- regulations, codes of practice, guidelines and Australian standards relating to production of bivalve molluscs and related role of government in overseeing implementation of shellfish quality programs
- relevant sections of the Australia New Zealand Food Standards Code
- basic biology and physiology of bivalve molluscs and related sources of food safety risk
- pathogens that can occur in bivalve molluscs and related survival and growth characteristics and control methods, including:
  - hepatitis A virus
  - Norwalk virus
  - *Vibrio parahaemolyticus*

- *Vibrio vulnificus*
- *Salmonella* spp
- pathogenic *Escherichia coli*
- *listeria monocytogenes* (in ready-to-eat seafood)
- chemicals that pose a food safety risk in bivalve molluscs, including:
  - phycotoxins: harmful algal blooms, such as amnesic shellfish poisoning (ASP), neurotoxic shellfish poisoning (NSP), diarrhetic shellfish poisoning (DSP) and paralytic shellfish poisoning (PSP)
  - pesticides
  - water additives
  - toxic metals
  - polychlorinated biphenyls (PCBs)
- sources of environmental contamination that can present a food safety risk in the growing and harvesting of bivalve molluscs, and related food safety controls, including risks associated with both on-shore and wild fisheries
- sources of information on acceptable and legal product quality requirements, including legal limits to ensure product safety
- classifications applying to harvesting areas, system for monitoring and determining status, sources of advice on classification and methods of communicating classification information
- sources of pre- and post-harvest contamination, and related control requirements
- risks and related control methods to prevent cross-contamination, including sorting and cleaning
- prerequisite programs required to support bivalve mollusc growing and harvesting
- basic principles of water sampling and test methods
- principles and associated control measures relating to effective purging of shellfish, including methods, including relaying and depuration, when practised according to state and territory legal and regulatory requirements
- risks associated with depuration and wet storage methods, and related control methods and prerequisite programs that meet legal requirements
- sources of pre- and post-harvest contamination, including sewage, algal bio-toxins and vibrio organisms and related control requirements
- stock handling and storage risks and control methods
- facilities and equipment used in the growing and harvesting of bivalve molluscs, including features required to meet regulatory requirements.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - skills must be demonstrated as an individual (not part of a group) in a real workplace
- resources, equipment and materials:
  - food safety programs covering bivalve mollusc growing and harvesting processes

- plant and equipment that would typically be used in a commercial bivalve mollusc growing and harvesting business
- case studies of audit processes, including one that involves relaying, depuration or wet storage
- specifications:
  - standard and authorised work practices, safety requirements and environmental constraints
  - food safety-related documentation typical of commercial growing and harvesting businesses and used for the purpose of verification.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volume Implementation Guides are found in VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## FBPAUD5002 Audit a cook chill process

### Modification History

Release	Comments
Release 1	This version released with the FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

### Application

This unit of competency describes the skills and knowledge required to support a food safety audit of food safety programs that include extended life cook chill processes and products, which are minimally heat-processed foods distributed as chilled products with defined shelf-life.

This unit applies to individuals who are responsible for auditing extended and short shelf-life cook chill processes. Audit processes would typically occur within the context of auditing a food safety program that defines related prerequisite program requirements.

This unit supports relevant legislation, including food standards included in the Australia New Zealand Food Standards Code, industry codes of practice relating to validation and verification of a food safety program, and the audit requirements detailed in the National Regulatory Food Safety Auditor Guideline and Policy, and should be read in conjunction with these documents.

Both regulatory and commercial audit system owners may specify additional certification requirements of auditors eligible to audit food safety programs within their system.

### Pre-requisite Unit

The prerequisite units of competency for this unit are:

- FBPAUD4002 Communicate and negotiate to conduct food safety audits
- FBPAUD4003 Conduct food safety audits
- FBPAUD4004 Identify, evaluate and control food safety hazards

### Unit Sector

Food safety auditing (AUD)

### Elements and Performance Criteria

Elements	Performance Criteria
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<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Identify and assess food safety hazards and related control options for cook chill processes	<p>1.1 Identify microbiological food safety hazards that could present a risk in cook chill products at the point of consumption, by type, origin and food association, and assess to determine the significance of the hazard</p> <p>1.2 Identify chemical food safety hazards that could present a risk in cook chill products at the point of consumption, including toxin presence, by type and food association, and assess to determine risk level and control requirements</p> <p>1.3 Identify and assess physical food safety hazards that could present a risk in the food at the point of consumption to determine risk level and control requirements</p> <p>1.4 Identify cook chill process control requirements and methods to ensure that finished cook chill products meet food safety objectives</p>
2. Confirm that appropriate evidence supports validation of the cook chill process	<p>2.1 Review validation evidence and records to confirm that appropriate level of validation has occurred</p> <p>2.2 Identify and assess evidence used by the business to validate the process to confirm that it is credible and adequate to achieve the food safety objective</p>
3. Verify the food safety program for a cook chill process	<p>3.1 Identify, collect and review system records required to support verification</p> <p>3.2 Review business documentation and conduct inspections to confirm that facilities and equipment design and components comply with regulatory and business standards</p> <p>3.3 Review business documentation and conduct inspections to confirm that operational monitoring and testing procedures and frequency meet regulatory requirements, industry and business standards</p>

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

<b>Skill</b>	<b>Description</b>
Reading	<ul style="list-style-type: none"> <li>Interpret food safety legislation and audit guidelines</li> </ul>



Skill	Description
Navigate the world of work	<ul style="list-style-type: none"><li>• Apply knowledge of regulations and policies relevant to food safety standards in the workplace</li><li>• Monitor adherence to legal and regulatory standards and responsibilities</li></ul>
Get the work done	<ul style="list-style-type: none"><li>• Use problem-solving skills to identify and analyse non-conformance</li></ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPAUD5002 Audit a cook chill process	FDFAU4006A Audit a cook chill process	Updated to meet Standards for Training Packages  Unit code updated to reflect AQF level	Equivalent unit

## Links

Companion Volume Implementation Guides are found in VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## Assessment Requirements for FBPAUD5002 Audit a cook chill process

### Modification History

Release	Comments
Release 1	This version released with the FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

### Performance Evidence

An individual demonstrating competency in this unit must satisfy all of the elements and performance criteria of this unit.

There must be evidence that the individual has actively participated in a minimum of two food safety program audits of the extended and short shelf-life cook chill process, including two of the following:

- a five-day cook chill process
- a cook chill process resulting in an extended shelf-life product
- a kettle or cook tank cook chill process
- a sous vide cook chill process.

For each audit, individuals must also show evidence of:

- documenting evidence that details the review of the processor's hazard analysis critical control point (HACCP) plan to determine if the critical control points (CCPs) are correctly identified, valid, adequately monitored and verified
- identifying target organisms for a range of foods
- determining capacity of distribution chain to control temperature parameters
- determining requirements of specific extended and short shelf-life cook chill methods for a range of products.

### Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- regulations, codes of practice, guidelines, technical standards and Australian Standards relating to all forms of cook chill processing of foods
- relevant sections of the Australia New Zealand Food Standards Code

- target organisms that can occur in extended and short shelf-life cook chill foods, their survival and growth characteristics and related control methods
- specific hazards that affect vulnerable persons, including clients of facilities listed in Standard 3.2.2 of the Food Standards Code
- principles of heat treatment and chilling as they apply to extended and short shelf-life cook chill processing methods and product types
- criteria used to specify heat treatment, cooling, storage and shelf-life parameters for extended and short shelf-life cook chill products
- factors that impact on heat and chilling processes meeting food safety objective
- prerequisite programs required to support effectiveness of cook chill processes
- operational principles of commercial extended and short shelf-life cook chill equipment, including equipment features required to meet regulatory requirements, and critical factors to be controlled to ensure delivery of heating and chilling processes that meet food safety objective
- features of the environment in which cook chill foods are distributed, including risk factors
- foods and preparation methods that present a particular risk to vulnerable populations, including cross-contamination risks associated with multi-tasking and cold chain maintaining temperatures during storage, transport and distribution
- principles of packaging to form a suitable seal, and impact of processing parameters and conditions on packaging integrity
- effect of characteristics and pre-processing of raw materials and post-process packaging on the stability and safety of the product
- labelling requirements for extended and short shelf-life cook chill products
- food safety risks and controls to avoid post-process contamination of heat-treated product
- principles of test methods and frequency to confirm the effectiveness of cook chill processes and meet regulatory, industry and business standards.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - skills must be demonstrated as an individual (not part of a group) in a real workplace
- resources, equipment and materials:
  - food safety programs covering extended and short shelf-life cook chill processes
  - plant and equipment that would typically be used by commercial businesses producing extended and short shelf-life cook chill products
  - audit scenarios, including a five-day cook chill process, a kettle or cook tank cook chill process, or a sous vide cook chill process
- specifications:
  - food safety-related documentation typical of commercial businesses producing extended and short shelf-life cook chill products and used for the purpose of verification

- evidence that would typically be used by commercial businesses to support validation processes.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## FBPAUD5003 Audit a heat treatment process

### Modification History

Release	Comments
Release 1	This version released with the FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

### Application

This unit of competency describes the skills and knowledge required to support a food safety audit that includes heat treatment processes designed to bring about a defined logarithmic reduction of the target organism to ensure safe food.

This unit applies to individuals who are responsible for auditing heat treatment processes. Audit processes would typically occur within the context of auditing a hazard analysis critical control point (HACCP)-based food safety program that defines related prerequisite program requirements. This unit applies to auditing aspects of the process that directly relate to delivering the prescribed heat treatment. It covers related factors, including raw materials receipt, pre- and post-process storage and packaging methods and materials only to the extent that they impact on or are controlled by the heat treatment process.

This unit supports relevant legislation, including food standards included in the Australia New Zealand Food Standards Code, industry codes of practice relating to validation and verification of a food safety program, and the audit requirements detailed in the National Regulatory Food Safety Auditor Guideline and Policy, and should be read in conjunction with these documents.

Both regulatory and commercial audit system owners may specify additional certification requirements of auditors eligible to audit food safety programs within their system.

### Pre-requisite Unit

The prerequisite units of competency for this unit are:

- FBPAUD4002 Communicate and negotiate to conduct food safety audits
- FBPAUD4003 Conduct food safety audits
- FBPAUD4004 Identify, evaluate and control food safety hazards

### Unit Sector

Food safety auditing (AUD)

## Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Identify and assess food safety hazards and related control options for heat treatment processes	<p>1.1 Identify microbiological food safety hazards that could present a risk in the food at the point of consumption, by type, origin and food association level, and assess to determine the significance of the hazard</p> <p>1.2 Identify heat treatment processes, control requirements and methods to ensure that finished, heat-treated products meet food safety objectives</p>
2. Confirm that appropriate evidence supports validation of the heat treatment process	<p>2.1 Review validation evidence and records to confirm that an appropriate level of validation has been applied</p> <p>2.2 Identify and assess evidence used by the business to validate the process to confirm that it is credible and adequate to achieve the food safety objective</p>
3. Confirm verification of the food safety program for a heat treatment process	<p>3.1 Identify, collect and review system records required to support verification</p> <p>3.2 Review business documentation and conduct inspections to confirm that facilities and equipment design and components comply with regulatory and business standards</p> <p>3.3 Review business documentation and conduct inspections to confirm that operational monitoring and testing procedures and frequency meet regulatory requirements, and industry and business standards</p>

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"> <li>Interpret information relating to food safety and audit guidelines</li> </ul>
Navigate the world of work	<ul style="list-style-type: none"> <li>Apply knowledge of regulations and policies relevant to food safety standards in the workplace</li> <li>Monitor adherence to legal and regulatory standards and responsibilities for self and others</li> </ul>

Skill	Description
Get the work done	<ul style="list-style-type: none"><li>Use problem-solving skills to identify and analyse non-conformance</li></ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPAUD5003 Audit a heat treatment process	FDFAU4007B Audit a heat treatment process	Updated to meet Standards for Training Packages  Unit code updated to reflect AQF level	Equivalent unit

## Links

Companion Volume Implementation Guides are found in VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# Assessment Requirements for FBPAUD5003 Audit a heat treatment process

## Modification History

Release	Comments
Release 1	This version released with the FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

## Performance Evidence

An individual demonstrating competency in this unit must satisfy all of the elements and performance criteria of this unit.

There must be evidence that the individual has actively participated in two food safety program audits of food heat treatment processes, including:

- retorting cans or pouches
- pasteurisation.

For each audit, individuals must also show evidence of:

- documenting evidence that details the review of the processor's hazard analysis critical control point (HACCP) plan to determine if the critical control points (CCPs) are correctly identified, valid, adequately monitored and verified
- using time temperature indicators (TTIs) to measure the effectiveness of a range of heat treatment
- evaluating raw materials
- evaluating sterilisation packaging and equipment (relevant to aseptic systems) and post-process handling.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- regulations, codes of practice, guidelines, technical specifications and, where appropriate, specific product heat treatment requirements and Australian Standards relating to heat treatment of foods
- relevant sections of the Australia New Zealand Food Standards Code
- target organisms that can occur in heat-treated foods and related survival and growth characteristics



- principles of heat treatment and application of heat-processing methods to product types
- criteria used to specify and evaluate heat treatment for each heat processing method
- factors that impact on heat distribution and heat penetration according to both retorting and pasteurisation methods
- principles of operation of commercial heat-processing equipment, including equipment features required to meet regulatory requirements, and critical factors to be controlled to ensure delivery of prescribed heat treatment and related processes, including retorting and pasteurisation
- procedural safeguards used to track processing of product
- principles of packaging to form a suitable seal, and impact of packaging system and heat treatment methods and equipment on process effectiveness and packaging integrity
- characteristics of raw materials and pre-processing requirements that impact on the microbiological profile and that need to be considered in determining the thermal process
- post-processing packaging and handling that impact on the ability to maintain the food safety objective following thermal processing, and related prerequisite programs required to support effectiveness of heat treatment processes
- food safety risks and controls to avoid post-process contamination of heat-treated product
- principles of sampling requirements and test methods to confirm equipment integrity, effectiveness of heat treatment, packaging system and seal integrity, and post-processing conditions to meet regulatory, industry and business standards.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - skills must be demonstrated as an individual (not part of a group) in a real workplace
- resources, equipment and materials:
  - food safety plans covering heat treatment processes
  - plant and equipment that would typically be used in a commercial manufacturing business
  - scenarios of different heat treatment processes
- specifications:
  - food safety-related documentation typical of commercial manufacturing businesses and used for the purpose of verification
  - evidence and documentation relevant to heat treatment processes that would typically be used by commercial manufacturing businesses to support validation processes.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>



## FBPAUD5004 Audit manufacturing of ready-to-eat meat products

### Modification History

Release	Comments
Release 1	This version released with the FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

### Application

This unit of competency describes the skills and knowledge required to support a food safety audit of food safety programs relating to the manufacture of ready-to-eat meat products.

This unit applies to individuals who are responsible for auditing ready-to-eat meat manufacturing processes. Audit processes would typically occur within the context of auditing a hazard analysis critical control point (HACCP)-based food safety program that defines related prerequisite program requirements.

This unit covers raw materials receipt, processing of ready-to-eat meat products and post-processing storage and handling of product undertaken by the manufacturer of ready-to-eat meat products.

This unit supports relevant legislation, including food standards included in the Australia New Zealand Food Standards Code, industry codes of practice relating to validation and verification of a food safety program, and the audit requirements detailed in the National Regulatory Food Safety Auditor Guideline and Policy, and should be read in conjunction with these documents.

Both regulatory and commercial audit system owners may specify additional certification requirements of auditors eligible to audit food safety programs within their system.

### Pre-requisite Unit

The prerequisite units of competency for this unit are:

- FBPAUD4002 Communicate and negotiate to conduct food safety audits
- FBPAUD4003 Conduct food safety audits
- FBPAUD4004 Identify, evaluate and control food safety hazards

### Unit Sector

Food safety auditing (AUD)

## Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Identify and assess food safety hazards and control options for ready-to-eat meat manufacturing and related handling processes	<p>1.1 Identify microbiological food safety hazards that could present a risk in ready-to-eat meat products at the point of consumption, by type, origin and food association, and assess to determine risk level and control requirements</p> <p>1.2 Identify chemical food safety hazards that could present a risk in ready-to-eat meat products at the point of consumption, including toxin presence, by type, origin and food association, and assess to determine risk level and control requirements</p> <p>1.3 Identify and assess physical food safety hazards that present a risk in food to determine control requirements</p> <p>1.4 Identify control requirements and methods to ensure that finished, ready-to-eat meat products meet food safety objectives</p>
2. Confirm that appropriate evidence supports validation of the ready-to-eat meat manufacturing process	<p>2.1 Review validation evidence and records to confirm that an appropriate level of validation has been applied</p> <p>2.2 Identify and assess evidence used by the business to validate the process to confirm that it is credible and adequate to meet the food safety objective</p>
3. Verify the food safety program for a ready-to-eat meat manufacturing process	<p>3.1 Identify, collect and review system records required to support verification</p> <p>3.2 Review business documentation and conduct inspections to confirm that facilities and equipment design and components comply with regulatory and business standards</p> <p>3.3 Review business documentation and conduct inspections to confirm that operational monitoring and testing procedures and frequency meet regulatory requirements, industry and business standards</p>

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
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Skill	Description
Reading	<ul style="list-style-type: none"><li>Interpret information relating to food safety and audit guidelines</li></ul>
Navigate the world of work	<ul style="list-style-type: none"><li>Apply knowledge of regulations and policies relevant to food safety standards in the workplace</li><li>Monitor adherence to legal and regulatory standards and responsibilities for self and others</li></ul>
Get the work done	<ul style="list-style-type: none"><li>Use problem-solving skills to identify and analyse non-conformance</li></ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPAUD5004 Audit manufacturing of ready-to-eat meat products	FDFAU4008A Audit manufacturing of ready-to-eat meat products	Updated to meet Standards for Training Packages  Unit code updated to reflect AQF level	Equivalent unit

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# Assessment Requirements for FBPAUD5004 Audit manufacturing of ready-to-eat meat products

## Modification History

Release	Comments
Release 1	This version released with the FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

## Performance Evidence

An individual demonstrating competency in this unit must satisfy all of the elements and performance criteria of this unit.

There must be evidence that the individual has actively participated in a minimum of two food safety audits of commercial manufacturing processes that produce different ready-to-eat meat products, including:

- documenting evidence that details the review of the processor's hazard analysis critical control point (HACCP) plan to determine if the critical control points (CCPs) are correctly identified, valid, adequately monitored and verified
- identifying product-specific risks and typical processing methods, including sources of information on processing parameters, for one product in each of the following categories:
  - uncooked fermented meat products
  - smoked or cooked meat products
  - slowly cured meat, such as prosciutto
  - pâté
- identifying storage and transport of safe ready-to-eat meat products for at least one product in each of the following product categories:
  - uncooked fermented meat products
  - smoked or cooked meat products
  - slowly cured meat, such as prosciutto
  - pâté.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- regulations, codes of practice, guidelines, technical specifications and Australian Standards relating to the formulation and manufacture of ready-to-eat meat products

- relevant sections of the Australia New Zealand Food Standards Code
- sources of information on acceptable processing and related storage and handling methods and parameters for given products and target microorganisms
- pathogens that can occur in meat products, and related control methods required in manufacturing, post-processing and storage, including:
  - *Campylobacter jejuni* (poultry)
  - pathogenic *Escherichia coli*, including enterohaemorrhagic *Escherichia coli*
  - *Clostridium perfringens* and *Clostridium botulinum*
  - *Listeria monocytogenes*
  - *Salmonella* spp
  - *Staphylococcus aureus*
  - *Yersinia enterocolitica*
  - viruses
  - moulds and fungi
  - parasites
  - algae
- risks posed by products that can be consumed without heating or cooking, including uncooked fermented meat, uncooked comminuted fermented meat (UCFM) and other salami products
- survival and growth characteristics of pathogens and ability of processed product to support pathogen growth
- chemicals that pose a food safety risk in meat products, and related control methods
- physical sources of contamination and related control methods
- effect of raw material characteristics, including bacterial load and temperature, and pre-processing conditions on the growth of pathogens
- prerequisite programs required to support safe manufacture of ready-to-eat meat products
- purpose, role and storage requirements of ingredients
- principles of manufacturing methods and factors that affect processing requirements
- use and effectiveness of hurdle technologies
- principles of packaging to form a suitable seal, and requirements of post-processing handling and conditions to ensure safe product
- principles of operation of ready-to-eat meat product manufacturing equipment, including equipment features required to meet regulatory requirements and critical factors to be controlled to ensure safe food outcomes
- indications of unacceptable product, and related test requirements
- principles of test methods and frequency in monitoring condition of raw materials and processing, and in confirming that final product is fit for human consumption.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - skills must be demonstrated as an individual (not part of a group) in a real workplace

- resources, equipment and materials:
  - plant and equipment that would typically be used in the commercial manufacture of ready-to-eat meat products
  - food safety programs and related documentation
- specifications:
  - records for the purpose of verification
  - evidence to support validation.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volume Implementation Guides are found in VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>



# FBPBEV2001 Operate a deaeration, mixing and carbonation process

## Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package version 1.0.

## Application

This unit of competency describes the skills and knowledge required to set up, operate, adjust and shut down equipment used to deaerate, mix and carbonate aerated drink products prior to filling.

The unit applies to individuals who are production workers responsible for applying basic operating procedures to operate and monitor, a deaerator, a continuous flow mixing process and a carbonator.

All work must be carried out to comply with workplace procedures, in accordance with State/Territory work health and safety, and food safety regulations, legislation and standards that apply to the workplace.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

## Pre-requisite Unit

Nil

## Unit Sector

Beverages (BEV)

## Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare the equipment	1.1 Ensure materials are available according to operating requirements

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
and process for operation	1.2 Identify and ensure cleaning and maintenance requirements have been met according to food safety requirements 1.3 Fit and adjust machine components and related attachments according to operating requirements 1.4 Enter processing or operating parameters to meet safety and production requirements 1.5 Check and adjust equipment to ensure optimum performance 1.6 Carry out pre-start checks according to operator instructions
2. Start and monitor the deaeration, mixing and carbonation process	2.1 Start and operate the process according to work health and safety and operating procedures 2.2 Monitor equipment to identify variation in operating conditions 2.3 Identify variation in equipment operation and report maintenance requirements 2.4 Ensure that product specifications are being met at each stage according to production specifications 2.5 Rectify or report out-of-specification product or process outcomes according to workplace procedures
3. Shut down the deaeration, mixing and carbonation process and report maintenance requirements	3.1 Identify the appropriate shutdown procedure 3.2 Shut down the process safely according to operating procedures 3.3 Maintain the work area and report identified maintenance requirements according to workplace procedures 3.4 Update and maintain records according to workplace procedures

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"> <li>Interpret textual information to identify relevant and key information from specifications, instructions, production schedules and operating and service manuals</li> </ul>

Skill	Description
Writing	<ul style="list-style-type: none"> <li>Use clear language and correct concepts and industry terminology for reporting and keeping records</li> </ul>
Numeracy	<ul style="list-style-type: none"> <li>Recognise and perform basic calculations for handling product and material weights and volumes and for setting processing parameters</li> </ul>
Oral communication	<ul style="list-style-type: none"> <li>Use clear language and correct concepts and industry terminology to ensure clarity of meaning when reporting issues</li> </ul>
Navigate the world of work	<ul style="list-style-type: none"> <li>Recognise and implement organisational expectations and follow explicit protocols and procedures</li> </ul>
Get the work done	<ul style="list-style-type: none"> <li>Follow clearly defined instructions and sequencing, and monitor own progress for the task, seeks assistance when necessary</li> <li>Respond to routine problems following instruction and procedures</li> </ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPBEV2001 Operate a deaeration, mixing and carbonation process.	FDFBV2001A Operate a deaeration, mixing and carbonation process.	<p>Updated to meet Standards for Training Packages</p> <p>Minor changes to Performance Criteria for clarity</p>	Equivalent unit

## Links

Companion Volumes, including Implementation Guides, are available at VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## Assessment Requirements for FBPBEV2001 Operate a deaeration, mixing and carbonation process

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package version 1.0.

### Performance Evidence

An individual demonstrating competency in this unit must satisfy all of the elements and performance criteria of this unit.

There must be evidence that, on at least one occasion, the individual has:

- conducted pre-start checks on machinery used for deaeration, mixing and carbonation
- started, operated, monitored and adjusted process equipment according to work health and safety policies and procedures to achieve required quality outcomes
- taken corrective action in response to typical faults and inconsistencies
- completed workplace records as required
- shut down equipment safely
- applied food safety policies and procedures to work practices.

### Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- purpose and basic principles of each stage of the deaeration, mixing and carbonation process, including the relationships between pressure, temperature and volume on processing outcomes
- basic operating principles of deaeration, mixing and carbonation equipment including:
  - main equipment components
  - status and purpose of guards
  - equipment operating capacities and applications
  - purpose and location of process equipment sensors and related feedback instrumentation
  - equipment service requirements and actions to take if services are not available
- process flow of the deaeration, mixing and carbonation and the effect of outputs on downstream processes, including:
  - how each stage of the process affects related stages

- how the outputs of this process affect the filling stage
- quality characteristics to be achieved by each stage of the process, including:
  - amount of dissolved air to be removed at deaeration
  - typical water and syrup ratios for product types
  - volume of carbon dioxide to be dissolved in the aerated product
- quality and condition requirements of inputs and effect of variation on process performance including:
  - characteristics of different ingredients
  - how ingredients behave when processed
- operating requirements of deaeration, mixing and carbonation equipment and parameters and corrective action required where operation is outside specified operating parameters
- typical equipment faults and related causes, including signs and symptoms of faulty equipment and early warning signs of potential problems
- methods used to monitor the production process, including inspecting, measuring and testing as required by the process including:
  - inspection or test points (control points) in the process
  - procedures and recording requirements
  - test procedures for brix and carbonation
  - other tests
- contamination and food safety risks associated with the process and related procedures
- common causes of variation in output quality and corrective action required
- work health and safety hazards and controls for deaeration, mixing and carbonation equipment
- requirements of different shutdown procedures for the process including:
  - workplace production requirements
  - emergency and routine shutdowns
  - procedures to follow in the event of a power outage
- isolation, lock out and tag out procedures and responsibilities
- procedures and responsibility for reporting production and performance information
- environmental issues and controls relevant to the process, including waste and rework collection and handling procedures related to the deaeration, mixing and carbonation equipment and process
- basic operating principles of process control, including the relationship between control panels and systems and the physical equipment
- routine maintenance procedures for deaeration, mixing and carbonation equipment
- cleaning and sanitation procedures for deaeration, mixing and carbonation equipment.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - a workplace or an environment that accurately represents workplace conditions

- resources, equipment and materials:
  - personal protective clothing used for food handling and safe operation of equipment
  - suitable water supply
  - procedures and equipment for cleaning deaeration, mixing and carbonation equipment and work area
- specifications:
  - workplace procedures, including safe work practices, food safety, quality, and environmental requirements
  - specifications, control points and parameters for the deaeration, mixing and carbonation equipment and process
  - deaeration, mixing and carbonation equipment operating and service manuals
  - record-keeping documents required for the work specified in the performance evidence.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volumes, including Implementation Guides, are available at VETNet: - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## FBPBEV2002 Manufacture roast and ground coffee

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package version 1.0.

### Application

This unit of competency describes the skills and knowledge required to set up, operate, adjust and shut down a blending, roasting and grinding process.

The unit applies to production workers responsible for the operation and monitoring of a blending, roasting and grinding process and associated equipment in a coffee production environment.

All work must be carried out to comply with workplace procedures, in accordance with State/Territory work health and safety, and food safety regulations, legislation and standards that apply to the workplace.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

### Pre-requisite Unit

Nil

### Unit Sector

Beverages (BEV)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare the blending, roasting and grinding process for operation	1.1 Ensure materials are available according to operating requirements 1.2 Identify and ensure cleaning and maintenance requirements have been met according to food safety requirements

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	1.3 Fit and adjust machine components and related attachments according to operating requirements 1.4 Enter processing or operating parameters to meet safety and production requirements 1.5 Check and adjust equipment to ensure optimum performance 1.6 Carry out pre-start checks according to operator instructions
2. Operate and monitor the blending, roasting and grinding process	2.1 Start and operate the process according to work health and safety and operating procedures 2.2 Monitor equipment to identify variation in operating conditions 2.3 Identify variation in equipment operation and report maintenance requirements 2.4 Blend and roast green beans according to product and recipe specifications 2.5 Grind roasted beans to product specifications 2.6 Identify and rectify or report out-of-specification production outcomes
3. Shut down the roasting and grinding process	3.1 Identify the appropriate shutdown procedure 3.2 Shut down the process safely according to operating procedures 3.3 Maintain the work area and complete appropriate report identifiable maintenance requirements according to workplace procedures 3.4 Update and maintain records according to workplace procedures

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"> <li>Interpret textual information to identify relevant and key information from specifications, instructions and operating manuals</li> </ul>



Skill	Description
Writing	<ul style="list-style-type: none"> <li>Use clear language and correct concepts and industry terminology for reporting and keeping records</li> </ul>
Numeracy	<ul style="list-style-type: none"> <li>Recognise and perform basic calculations for handling product and material weights and volumes and for setting processing parameters</li> </ul>
Oral communication	<ul style="list-style-type: none"> <li>Use clear language and correct concepts and terminology to ensure clarity of meaning when reporting issues</li> </ul>
Get the work done	<ul style="list-style-type: none"> <li>Follow clearly defined instructions and sequencing, and monitor own progress for the task, seek assistance when necessary</li> <li>Respond to routine problems following instruction and procedures</li> </ul>
Navigate the world of work	<ul style="list-style-type: none"> <li>Recognise organisational expectations and follow explicit protocols and procedures</li> </ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPBEV2002 Manufacture roast and ground coffee	FDFBV2002A Manufacture coffee (roast and ground)	<p>Updated to meet Standards for Training Packages</p> <p>Minor changes to Performance Criteria for clarity</p>	Equivalent unit

## Links

Companion Volumes, including Implementation Guides, are available at VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# Assessment Requirements for FBPBEV2002 Manufacture roast and ground coffee

## Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package version 1.0.

## Performance Evidence

An individual demonstrating competency in this unit must satisfy all of the elements and performance criteria of this unit.

There must be evidence that, on at least one occasion, the individual has:

- conducted pre-start checks on machinery used for blending, roasting and grinding
- started, operated, monitored and adjusted process equipment to achieve required quality outcomes according to work health and safety policies and procedures
- taken corrective action in response to typical faults and inconsistencies
- completed workplace records
- shut down equipment safely
- applied food safety procedures to work practices.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- steps and purpose of each stage in the roasting and grinding process
- basic operating principles of roast and ground coffee equipment including:
  - main equipment components
  - status and purpose of guards
  - basic principles and operation of roasting and grinding system
  - equipment operating capacities and applications
  - purpose and location of sensors and related feedback instrumentation
- roasting and grinding flow process and the effect of outputs on the downstream processes including:
  - how each stage of the process affects related stages
  - how the outputs of this process affect the filling stage
- quality characteristics to be achieved by the roasting and grinding process including:

- varieties of green beans
- effect of bean characteristics on roasting and grinding processes
- operating requirements and parameters and corrective action required where operation is outside specified operating parameters
- typical equipment faults and related causes, including signs and symptoms of faulty equipment and early warning signs of potential problems
- inspection or test points (control points) in the roast and ground coffee process and the related procedures and recording requirements
- contamination and food safety risks associated with the roast and ground coffee process and related control measures
- common causes of product variation and corrective action required
- workplace health and safety hazards and procedures, including the limitations of protective clothing and equipment relevant to the work process
- requirements of different shutdown procedures for the process and workplace production requirements, including:
  - emergency and routine shutdowns
  - procedures to follow in the event of a power outage
  - isolation, lock out and tag out procedures and responsibilities
- procedures and responsibility for reporting production and performance information
- environmental issues and controls relevant to the process, including waste collection and handling procedures related to the process
- basic operating principles of process control equipment including:
  - the physical equipment
  - the relationship between control panels and systems
  - routine maintenance procedures for roasting and grinding equipment
- cleaning and sanitation procedures for roast and coffee grinding equipment and worksite.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - a workplace or an environment that accurately represents workplace conditions
- resources, equipment and materials:
  - personal protective clothing used for food handling and safe operation of coffee roasting and grinding equipment
  - coffee roasting and grinding equipment and manuals
  - green coffee
  - suitable water supply
  - sampling schedules, test procedures and related equipment
  - record-keeping documents required for the work specified in the performance evidence
  - procedures and equipment for cleaning roast and coffee grinding equipment and work area

- specifications:
  - work procedures, including safe work practices, food safety, quality, and environmental requirements
  - specifications, control points and parameters for roasting coffee.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volumes, including Implementation Guides, are available at VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## FBPBEV2003 Operate an ice manufacturing process

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package version 1.0.

### Application

This unit of competency describes the skills and knowledge required to set up, monitor, and adjust a process to manufacture ice.

The unit applies to production workers responsible for the operation and monitoring of an ice manufacturing process and equipment where the process is not highly or fully automated.

All work must be carried out to comply with workplace procedures, in accordance with State/Territory work health and safety, and food safety regulations, legislation and standards that apply to the workplace.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

### Pre-requisite Unit

Nil

### Unit Sector

Beverages (BEV)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare the ice making equipment and process for operation	1.1 Ensure water suitable for ice manufacture is available according to production requirements 1.2 Identify and confirm cleaning and maintenance requirements have been met according to food safety requirements

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	1.3 Fit and adjust machine components and related attachments according to operating requirements 1.4 Enter processing or operating parameters to meet safety and production requirements 1.5 Check and adjust equipment performance 1.6 Carry out pre-start checks according to operators instructions
2. Operate and monitor the ice making process	2.1 Start and operate the process following work health and safety procedures 2.2 Monitor equipment to identify variation in operating conditions 2.3 Identify variation in equipment operation and report maintenance requirements 2.4 Monitor the process to ensure that specifications are met according to production specifications 2.5 Identify, rectify or report out-of-specification product/process outcomes according to workplace procedures
3. Shut down the ice making process	3.1 Identify the appropriate shutdown procedure 3.2 Shut down the process safely according to operating procedures 3.3 Maintain the work area and report identified maintenance requirements according to workplace procedures 3.4 Update and maintain records according to workplace procedures

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"> <li>Interprets textual information to identify relevant and key information from specifications, instructions and operating manuals</li> </ul>
Writing	<ul style="list-style-type: none"> <li>Uses clear language and correct concepts and industry terminology for reporting and keeping records</li> </ul>

Skill	Description
Numeracy	<ul style="list-style-type: none"><li>Recognises and performs basic calculations for handling product and material weights and volumes and for setting processing parameters</li></ul>
Oral communication	<ul style="list-style-type: none"><li>Uses clear language and correct concepts and terminology to ensure clarity of meaning when reporting issues</li></ul>
Navigate the world of work	<ul style="list-style-type: none"><li>Recognises organisational expectations and follows explicit protocols and procedures</li></ul>
Get the work done	<ul style="list-style-type: none"><li>Follows clearly defined instructions and sequencing, and monitors own progress for the task, seeks assistance when necessary</li><li>Responds to routine problems following instruction and procedures</li></ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPBEV2003 Operate an ice manufacturing process	FDFBV2003A Operate an ice manufacturing process	Updated to meet Standards for Training Packages  Minor changes to Performance Criteria for clarity	Equivalent unit

## Links

Companion Volumes, including Implementation Guides, are available at VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## Assessment Requirements for FBPBEV2003 Operate an ice manufacturing process

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package version 1.0.

### Performance Evidence

An individual demonstrating competency in this unit must satisfy all of the elements and performance criteria of this unit.

There must be evidence that, on at least one occasion, the individual has:

- conducted pre-start checks on machinery used for ice manufacture
- started, operated, monitored and adjusted process equipment to achieve required quality outcomes
- recognised and corrected typical faults and inconsistencies
- completed workplace records
- shut down equipment
- applied food safety procedures to work practice
- followed workplace health and safety procedures.

### Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- basic operating principles of ice manufacturing equipment, including:
  - types of ice production
  - main equipment components
  - status and purpose of guards
  - equipment operating capacities and applications
  - the purpose and location of sensors and related feedback instrumentation
- equipment service requirements and actions to take if services are not available
- stages in the ice making cycle including a make and defrost stage
- water treatment required prior to use in ice making
- operating requirements, parameters and corrective action required where operation is outside specified operating parameters
- typical equipment faults and related causes, including:



- signs and symptoms of faulty equipment
- early warning signs of potential problems
- adjustments required to take account of ambient temperature
- contamination and food safety risks and related procedures
- common causes of variation to ice production and corrective action required
- workplace health and safety hazards and controls, including the limitations of protective clothing and equipment relevant to the work process
- storage requirements for packed ice
- isolation, lock out and tag out procedures and responsibilities
- procedures and responsibility for reporting production and performance information
- environmental issues and controls relevant to the process, including:
  - waste and rework collection
  - handling procedures related to the process
- basic operating principles of process control, including the relationship between control panels and systems and the physical equipment
- basic routine maintenance procedures for ice making equipment
- cleaning and sanitation procedures for ice making equipment and worksite.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - a workplace or an environment that accurately represents workplace conditions
- resources, equipment and materials:
  - personal protective clothing used for food handling and safe operation of equipment
  - ice making equipment
  - suitable water supply for making ice
  - procedures and equipment for cleaning equipment and work area
- specifications:
  - work procedures, including safe work practices, food safety, quality, and environmental requirements
  - specifications, control points and parameters for making ice
  - equipment operating and service manuals
  - record-keeping documents required for the work specified in the performance evidence.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volumes, including Implementation Guides, are available at VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## FBPBPG2001 Operate the bottle supply process

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

### Application

This unit of competency describes the skills and knowledge required to set up, operate and shut down a range of semi-automated bottling equipment.

The unit applies to individuals who work under general supervision in bottling and packaging and are responsible for operating and monitoring a bottle supply process and associated equipment.

All work must be carried out to comply with workplace procedures, according to state/territory health and safety, and food safety regulations, legislation and standards that apply to the workplace.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

### Pre-requisite Unit

Nil

### Unit Sector

Bottling and Packaging (BPG)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare to operate bottle supply equipment	1.1 Confirm work instructions and identify potential health and safety in the workplace hazards and controls with supervisor 1.2 Select, fit and use appropriate personal protective equipment

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	1.3 Ensure that product and materials are available to meet bottle supply requirements 1.4 Prepare product and materials to meet bottle supply requirements 1.5 Ensure that services are available and ready for operation 1.6 Prepare bottle supply equipment and check to confirm readiness for use 1.7 Setup equipment to meet bottle supply requirements
2. Operate and monitor the bottle supply process	2.1 Start-up bottle supply equipment according to operating instructions 2.2 Monitor control points to confirm performance is maintained within equipment operation specifications 2.3 Ensure bottles are supplied according to requirements 2.4 Monitor bottle supply equipment to confirm operating conditions 2.5 Identify, rectify and report out-of-specification end product, process and equipment performance according to workplace procedures 2.6 Liaise with operators in other work areas to ensure ongoing bottling process runs efficiently and effectively
3. Shut down the bottle supply process	3.1 Shut down bottle supply equipment according to operating instructions 3.2 Prepare bottle supply equipment for cleaning according to workplace procedures
4. Conduct housekeeping activities	4.1 Carry out cleaning and maintenance procedures 4.2 Collect, treat and dispose of or recycle waste generated by both the process and cleaning procedures 4.3 Record workplace information according to workplace procedures

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"><li>Interpret key messages in standard operating procedures</li></ul>
Navigate the world of work	<ul style="list-style-type: none"><li>Follow clear instructions within defined level of responsibility</li><li>Recognise organisational expectations and follows explicit protocols and procedures</li><li>Seek clarification when required</li></ul>
Get the work done	<ul style="list-style-type: none"><li>Respond to routine problems using step by step instruction and procedures</li></ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPBP2001 Operate the bottle supply process	FDFBP2001A Operate the bottle supply process	Updated to meet Standards for Training Packages  Minor changes to Performance Criteria to clarify intent	Equivalent unit

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# Assessment Requirements for FBPBPG2001 Operate the bottle supply process

## Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

## Performance Evidence

An individual demonstrating competency must satisfy all of the elements and performance criteria in this unit.

There must be evidence that the individual has safely and effectively prepared for, started up, operated and shut down all items of equipment involved in a bottle supply process on at least one occasion, including:

- confirming equipment is ready for operation, including checking that:
  - cleaning and sanitation processes are completed
  - stripping plates, rubber (pickup) cups and guides are clean and operational
  - any adjacent coding equipment is set up and operational
  - line controls (conveyors) are operational
  - line lube is operational and being correctly applied
  - electronic bottle inspector is set up and operational
  - all equipment is set for correct bottle height
  - water filters and ultraviolet (UV) sterilising system are operational
  - bottle feeds are filled with correct screws and stars and accurately aligned
- monitoring and adjusting process equipment to achieve required quality outcomes, ensuring:
  - gas and compressed air pressures are correctly adjusted
  - quality bottles are depalletised
  - rinser cycles run effectively
  - bottles are clean after rinsing
  - water filtration does not block due to excessive pressure
  - UV lamps do not fail or exceed prescribed usage limits
  - levels and faults of bottles ejected by the electronic bottle inspector
- taking corrective action in response to typical faults and inconsistencies
- liaising with other work areas involved in the bottling process
- completing workplace records as required

- applying safe work practices and identifying health and safety in the workplace hazards and controls.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- purpose and principles of bottle supply equipment
- key features of bottle supply equipment and components
- links to related processes
- stages and changes which occur during the process
- effect of process stages on end product
- quality characteristics and uses of end product
- effect of product and materials on process outcomes
- emergency and troubleshooting procedures
- process specification, procedures and operating parameters
- equipment and instrumentation components, purpose and operation
- basic operating principles of process control systems where relevant
- services required
- significance and methods of monitoring control points
- common causes of variation and corrective action required
- technological advances that include automation and use of robots
- workplace health and safety hazards and controls
- routine maintenance requirements
- lock-out and tag-out procedures
- procedures and responsibility for reporting problems
- shutdown and cleaning requirements associated with changeovers and types of shutdown
- recording requirements and procedures.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - skills must be demonstrated in a workplace setting or an environment that accurately represents a real workplace
- resources, equipment and materials:
  - a bottling context
  - bottling resources and consumables
  - tools and equipment for adjusting and maintaining equipment
  - personal protective equipment
- specifications:
  - work procedures and operator manuals or instructions.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>



## FBPBPG2002 Operate the carton erection process

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

### Application

This unit of competency describes the skills and knowledge required to set up, operate and shut down a range of semi-automated carton packing equipment.

The unit applies to individuals who work under general supervision in bottling and packaging and are responsible for operating and monitoring a carton erection process and associated equipment.

All work must be carried out to comply with workplace procedures, according to state/territory health and safety, and food safety regulations, legislation and standards that apply to the workplace.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

### Pre-requisite Unit

Nil

### Unit Sector

Bottling and Packaging (BPG)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare to operate carton erection equipment	1.1 Confirm work instructions and identify potential health and safety in the workplace hazards and controls with supervisor 1.2 Select, fit and use appropriate personal protective equipment

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	1.3 Ensure that product and dry goods are available and ready for use 1.4 Ensure that services are available and ready for operation 1.5 Prepare carton erection equipment and check to confirm readiness for use 1.6 Set equipment to meet carton erection requirements
2. Operate and monitor the carton erection process	2.1 Start-up carton erection equipment according to operating instructions 2.2 Monitor control points to confirm performance is maintained within equipment operation specification 2.3 Erect cartons according to specifications 2.4 Monitor carton erection equipment to confirm operating condition 2.5 Identify, rectify and report out-of-specification end product, process and equipment performance according to workplace procedures 2.6 Liaise with operators in other work areas to ensure ongoing packaging process runs efficiently and effectively
3. Shut down the carton erection process	3.1 Shut down carton erection equipment according to operating instructions 3.2 Prepare carton erection equipment for cleaning according to workplace procedures
4. Conduct housekeeping activities	4.1 Carry out cleaning procedures 4.2 Collect, treat and dispose of or recycle waste generated by both the process and cleaning procedures according to workplace procedures 4.3 Record workplace information according to workplace procedures

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
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Skill	Description
Reading	<ul style="list-style-type: none"><li>Interpret key messages in standard operating procedures</li></ul>
Navigate the world of work	<ul style="list-style-type: none"><li>Follow clear instructions within defined level of responsibility</li><li>Recognise organisational expectations and follows explicit protocols and procedures</li><li>Seek clarification when required</li></ul>
Get the work done	<ul style="list-style-type: none"><li>Respond to routine problems using step by step instruction and procedures</li></ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPBP2002 Operate the carton erection process	FDFBP2002A Operate the carton erection process	Updated to meet Standards for Training Packages  Minor changes to Performance Criteria to clarify intent	Equivalent unit

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## Assessment Requirements for FBPBPG2002 Operate the carton erection process

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

### Performance Evidence

An individual demonstrating competency must satisfy all of the elements and performance criteria in this unit.

There must be evidence that the individual has safely and effectively prepared for, started up, operated, and shut down all items of equipment involved in the carton erection process on a minimum of one occasion, including:

- confirming equipment is ready for operation, including:
  - cleaning and sanitation processes are completed
  - carton magazines and guides are operational
  - insert magazines and guides are operational
  - any adjacent coding equipment is set up and operational
  - line controls (conveyors) are operational
  - line lube is operational and being correctly applied
  - all hot melt guns or jets are operational
  - equipment is set for correct carton dimensions
  - vacuum pump is operational
  - carton feeds are set up and accurately aligned for 6 or 12 pack cartons
- monitoring and adjusting process equipment to achieve required quality outcomes, ensuring:
  - compressed air pressure is at correct level
  - vacuum pressure is at correct level
  - hot melt units are maintained with correct wax level
  - carton supply is maintained
  - carton inserts are maintained
  - vacuum cups are picking up properly
  - hot glue strokes are correct length and producing a firm seal
- taking corrective action in response to typical faults and inconsistencies
- liaising with other work areas involved the packaging process

- completing workplace records as required
- applying safe work practices and identifying health and safety in the workplace hazards and controls.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- purpose and principles of the carton erection equipment
- key features of carton erection equipment and components
- links to related work areas in the packaging process
- effect of process stages on end product
- quality characteristics and uses of end product
- effect of product and materials on process outcomes
- emergency and troubleshooting procedures
- process specification, procedures and operating parameters
- equipment and instrumentation components, purpose and operation
- basic operating principles of process control systems where relevant
- services required
- significance and methods of monitoring control points
- common causes of variation and corrective action required
- workplace health and safety hazards and controls
- routine maintenance requirements
- lock-out and tag-out procedures
- procedures and responsibility for reporting problems
- shutdown and cleaning requirements associated with changeovers and types of shutdown
- recording requirements and procedures.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - skills must be demonstrated in a workplace setting or an environment that accurately represents a real workplace
- resources, equipment and materials:
  - carton erection equipment
  - carton erection resources and consumables
  - tools and equipment for adjusting and maintaining equipment
  - personal protective equipment
- specifications:
  - work procedures and operator manuals or instructions.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## FBPBPG2003 Operate the carton packing process

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

### Application

This unit of competency describes the skills and knowledge required to set up, operate and shut down a range of semi-automated carton packing equipment.

The unit applies to individuals who work under general supervision in bottling and packaging industry and are responsible for operating and monitoring a carton packing process and associated equipment.

All work must be carried out to comply with workplace procedures, according to state/territory health and safety, and food safety regulations, legislation and standards that apply to the workplace.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

### Pre-requisite Unit

Nil

### Unit Sector

Bottling and Packaging (BPG)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare to operate carton packing equipment	1.1 Confirm work instructions, including identifying potential health and safety in the workplace hazards and controls with supervisor 1.2 Select, fit and use appropriate personal protective equipment

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	1.3 Ensure that product and dry goods are available and ready for use 1.4 Confirm that services are available and ready for operation 1.5 Prepare carton packing equipment and check to confirm readiness for use 1.6 Set equipment to meet carton packing requirements
2. Operate and monitor the carton packing process	2.1 Start up carton packing equipment according to operating instructions 2.2 Monitor control points to confirm performance is maintained within specification 2.3 Pack cartons according to specifications 2.4 Monitor carton packing equipment to confirm operating condition 2.5 Identify, rectify and report out-of-specification end product, process and equipment performance according to workplace procedures 2.6 Liaise with operators in other work areas to ensure ongoing packaging process runs efficiently and effectively
3. Shut down the carton erection process	3.1 Shut down carton packing equipment according to operating instructions 3.2 Prepare carton packing equipment for cleaning
4. Conduct housekeeping activities	4.1 Carry out cleaning procedures 4.2 Collect, treat and dispose of or recycle waste generated by both the process and cleaning procedures 4.3 Record workplace information according to workplace procedures

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"> <li>Interpret key messages in standard operating procedures</li> </ul>



Skill	Description
Navigate the world of work	<ul style="list-style-type: none"><li>Follow clear instructions within defined level of responsibility</li><li>Recognise organisational expectations and follows explicit protocols and procedures</li><li>Seek clarification when required</li></ul>
Get the work done	<ul style="list-style-type: none"><li>Respond to routine problems using step by step instruction and procedures</li></ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPBP2003 Operate the carton packing process	FDFBP2003A Operate the carton packing process	Updated to meet Standards for Training Packages  Minor changes to Performance Criteria to clarify intent	Equivalent unit

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# Assessment Requirements for FBPBPG2003 Operate the carton packing process

## Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

## Performance Evidence

An individual demonstrating competency must satisfy all of the elements and performance criteria in this unit.

There must be evidence that the individual has safely and effectively prepared for, started up, operated and shut down all items of equipment in a carton packing process on a minimum of one occasion, including:

- confirming equipment is ready for operation, including:
  - multi-lane bottle diverters on infeed conveyors are operational
  - vacuum is operational
  - any adjacent coding equipment is set up and operational
  - line controls (conveyors) are operational
  - line lube is operational and being correctly applied
  - all hot melt guns or jets are operational
  - equipment is set for correct carton, cask and bottle dimensions
  - check weigher is operational
- monitoring and adjusting process equipment to achieve required quality outcomes, ensuring:
  - compressed air pressure is at correct level
  - vacuum pressure is at correct level
  - hot melt units are maintained with correct adhesive level
  - carton supply is maintained
  - carton inserts are maintained
  - vacuum cups are picking up properly
  - hot glue strokes are correct length and producing a firm seal
  - weigher is rejecting underweight (short supplied) cartons
- taking corrective action in response to typical faults and inconsistencies
- liaising with other work areas involved in the packaging process
- completing workplace records as required

- applying safe work practices and identifying health and safety in the workplace hazards and controls.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- purpose and principles of carton packing equipment
- key features of carton packing equipment and components
- links to related processes
- stages and changes which occur during the process
- effect of process stages on end product
- quality characteristics and uses of end product
- effect of product and materials on process outcomes
- emergency and troubleshooting procedures
- process specification, procedures and operating parameters
- equipment and instrumentation components, purpose and operation
- basic operating principles of process control systems where relevant
- services required
- significance and methods of monitoring control points
- common causes of variation and corrective action required
- technological advances that include automation and use of robots
- health and safety in the workplace hazards and controls
- routine maintenance requirements
- lock-out and tag-out procedures
- procedures and responsibility for reporting problems
- shutdown and cleaning requirements associated with changeovers and types of shutdown
- recording requirements and procedures.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - skills must be demonstrated in a workplace setting or an environment that accurately represents a real workplace
- resources, equipment and materials:
  - carton packing equipment
  - carton packing resources and consumables
  - tools and equipment for adjusting and maintaining equipment
  - personal protective equipment
- specifications:
  - work procedures and operator manuals or instructions.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## FBPBPG2004 Operate the palletising process

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

### Application

This unit of competency describes the skills and knowledge required to set up, operate and shut down a range of semi-automated and automated packaging equipment involved in the palletising process in a packing environment.

The unit applies to individuals who work under general supervision in bottling and packaging and are responsible for operating and monitoring a palletising process and associated equipment.

All work must be carried out to comply with workplace procedures, according to state/territory health and safety, and food safety regulations, legislation and standards that apply to the workplace.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

### Pre-requisite Unit

Nil

### Unit Sector

Bottling and Packaging (BPG)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare to operate palletising equipment	1.1 Confirm work instructions, including identifying potential health and safety in the workplace hazards and controls with supervisor

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	1.2 Select, fit and use appropriate personal protective equipment 1.3 Ensure that product and materials are available to meet palletising requirements 1.4 Ensure that services are available and ready for operation 1.5 Prepare palletising equipment and check to confirm readiness for use 1.6 Set up equipment to meet palletising requirements
2. Operate and monitor the palletising process	2.1 Start up palletising equipment according to operating instructions 2.2 Monitor control points to confirm performance is maintained within equipment operation and specification 2.3 Ensure product is palletised according to requirements 2.4 Monitor palletising equipment to confirm operating condition 2.5 Identify, rectify and report out-of-specification end product, process and equipment performance according to workplace procedures 2.6 Liaise with operators in other work areas to ensure ongoing packaging process runs efficiently and effectively
3. Shut down the palletising supply process	3.1 Shut down palletising equipment according to operating instructions 3.2 Prepare palletising equipment for cleaning according to workplace procedures
4. Conduct housekeeping activities	4.1 Carry out cleaning procedures 4.2 Collect, treat and dispose of or recycle waste generated by both the process and cleaning procedures 4.3 Record workplace information according to workplace procedures

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
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Skill	Description
Reading	<ul style="list-style-type: none"><li>• Interpret key messages in standard operating procedures</li></ul>
Navigate the world of work	<ul style="list-style-type: none"><li>• Follow clear instructions within defined level of responsibility</li><li>• Recognise organisational expectations and follows explicit protocols and procedures</li><li>• Seek clarification when required</li></ul>
Get the work done	<ul style="list-style-type: none"><li>• Respond to routine problems using step by step instruction and procedures</li></ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPBP2004 Operate the palletising process	FDFBP2011A Operate the palletising process	Updated to meet Standards for Training Packages  Minor changes to Performance Criteria to clarify intent	Equivalent unit

## Links

Companion Volume Implementation Guides are found in VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# Assessment Requirements for FBPBPG2004 Operate the palletising process

## Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

## Performance Evidence

An individual demonstrating competency must satisfy all of the elements and performance criteria in this unit.

There must be evidence that the individual has safely and effectively set up, operated and shut down the all items of equipment in the palletising process on a minimum of one occasion, including:

- confirming equipment is ready for operation, including:
  - cleaning and sanitation processes are completed
  - vacuum is operational
  - pallet pattern is set to specifications
  - slip sheets for export are available
  - plastic shrink wrapper is loaded and operational
  - pallet identification equipment is operational
  - sufficient and correct pallets are available
  - carton turning equipment is operational
  - pallet tacking hot glue is operational
  - infeed guides and gates are operational
- monitoring and adjusting process equipment to achieve required quality outcomes, ensuring:
  - compressed air pressure is at correct level
  - vacuum pressure is correct
  - cartons are going onto stripping plate according to set pattern
  - the ongoing quality and appearance of shrink wrapping
  - the ongoing quality and appearance of pallet identification
  - the ongoing quality and appearance of pallets and slip sheets
  - stacks are square on pallets
  - the ongoing quality and appearance of stacked pallets
- taking corrective action in response to typical faults and inconsistencies



- liaising with other work areas involved the packaging process
- completing workplace records as required
- applying safe work practices and identifying health and safety in the workplace hazards and controls.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- purpose and principles of palletising equipment
- key features of palletising equipment and components
- links to related processes
- effect of process stages on end product
- quality characteristics and uses of end product
- effect of product and materials on process outcomes
- emergency and troubleshooting procedures
- process specification, procedures and operating parameters
- equipment and instrumentation components, purpose and operation
- basic operating principles of process control systems where relevant
- services required
- significance and methods of monitoring control points
- common causes of variation and corrective action required
- health and safety in the workplace hazards and controls
- routine maintenance requirements
- lock-out and tag-out procedures
- procedures and responsibility for reporting problems
- shutdown and cleaning requirements associated with changeovers and types of shutdown
- recording requirements and procedures.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - skills must be demonstrated in a workplace setting or an environment that accurately represents a real workplace
- resources, equipment and materials:
  - palletising equipment
  - palletising resources and consumables
  - tools and equipment for adjusting and maintaining equipment
  - personal protective equipment
- specifications:
  - work procedures and operating instructions or instructions.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## FBPBPG2005 Operate the electronic coding process

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

### Application

This unit of competency describes the skills and knowledge required to set up, operate and shut down the electronic coding process.

The unit applies to individuals who work under general supervision in bottling and packaging and are responsible for operating and monitoring the electronic coding process and associated equipment.

All work must be carried out to comply with workplace procedures, according to state/territory health and safety, and food safety regulations, legislation and standards that apply to the workplace.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

### Pre-requisite Unit

Nil

### Unit Sector

Bottling and Packaging (BPG)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare to operate electronic coding equipment	1.1 Confirm work instructions including identifying potential health and safety in the workplace hazards and controls with supervisor 1.2 Select, fit and use appropriate personal protective equipment

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	1.3 Ensure that product and materials are available to meet electronic coding requirements 1.4 Ensure that services are available and ready for operation 1.5 Prepare electronic coding equipment and check to confirm readiness for use 1.6 Set up equipment to meet coding requirements
2. Input, store and retrieve data	2.1 Access data according to workplace procedures 2.2 Enter data to meet coding requirements 2.3 File and retrieve data to meet coding requirements 2.4 Follow security procedures according to workplace procedures
3. Operate and monitor the electronic coding process	3.1 Start-up electronic coding equipment according to operating instructions 3.2 Monitor control points to confirm performance is maintained within equipment operation specification 3.3 Code product according to specification 3.4 Monitor electronic coding equipment to confirm operating condition 3.5 Identify, rectify and report out-of-specification end product, process and equipment performance according to workplace procedures 3.6 Liaise with operators in other work areas to ensure ongoing packaging process runs efficiently and effectively
4. Shut down the bottle supply process	4.1 Shut down electronic coding equipment according to operating instructions 4.2 Prepare electronic coding equipment for cleaning according to workplace procedures
5. Conduct housekeeping activities	5.1 Carry out cleaning and maintenance procedures 5.2 Collect, treat and dispose of or recycle waste generated by both the process and cleaning procedures 5.3 Record workplace information according to workplace procedures

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"><li>Interpret key messages in standard operating procedures</li></ul>
Numeracy	<ul style="list-style-type: none"><li>Identify and comprehend relevant mathematical information in operating instructions, specifications and electronic coding requirements</li></ul>
Navigate the world of work	<ul style="list-style-type: none"><li>Follow clear instructions within defined level of responsibility</li><li>Recognise organisational expectations and follows explicit protocols and procedures</li><li>Seek clarification when required</li></ul>
Get the work done	<ul style="list-style-type: none"><li>Respond to routine problems using step by step instruction and procedures</li></ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPBP2005 Operate the electronic coding process	FDFBP2005A Operate the electronic coding process	Updated to meet Standards for Training Packages  Minor changes to Performance Criteria to clarify intent	Equivalent unit

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## Assessment Requirements for FBPBPG2005 Operate the electronic coding process

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

### Performance Evidence

An individual demonstrating competency must satisfy all of the elements and performance criteria in this unit.

There must be evidence that the individual has safely and effectively set up, operated and shut down the electronic coding process on a minimum of one occasion, including:

- confirming equipment is ready for operation, including:
  - cleaning and sanitation processes are completed
  - all inkjet heads have been purged and are operational
  - equipment is set up for correct date and specified application
  - all related touch screens and computers are operational
  - line controls and conveyors are operational
  - vacuum pumps are operational
  - labels and inks are to specification
  - printers have been tested and are operational
  - pressure sensitive applicators are operational
  - bottle feeds are filled with correct screws and stars and accurately aligned
- monitoring and adjusting process equipment to achieve required quality outcomes, ensuring:
  - compressed air pressure is at correct level
  - vacuum pressure is at correct level
  - quality and legibility of coding
  - all coding is correct as specified
  - application of bar code pressure sensitive labels is as specified
  - sensors are detecting missed labels
  - fill height and volume is correct
- liaising with other work areas involved the packaging process
- completing workplace records as required

- applying safe work practices and identifying workplace health and safety hazards and controls

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- purpose and principles of electronic coding equipment
- key features of electronic coding equipment and components which can include the mouse, keyboard, screen and control panel
- basic principles of data entry, storage and retrieval using information technology
- software functions, including codes, prompts and menus, as required, to perform coding tasks
- security and data management procedures
- links to related processes
- stages and changes which occur during the electronic coding process
- effect of process stages on end product
- quality characteristics and uses of end product
- effect of product and materials on process outcomes
- emergency and troubleshooting procedures
- process specification, procedures and operating parameters
- equipment and instrumentation components, purpose and operation
- basic operating principles of process control systems where relevant
- services required
- significance and methods of monitoring control points
- common causes of variation and corrective action required
- workplace health and safety hazards and controls
- routine maintenance requirements
- lock-out and tag-out procedures
- procedures and responsibility for reporting problems
- shutdown and cleaning requirements associated with changeovers and types of shutdown
- recording requirements and procedures.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - skills must be demonstrated in a workplace setting or an environment that accurately represents a real workplace
- resources, equipment and materials:
  - electronic coding equipment
  - electronic coding resources and consumables

- tools and equipment for adjusting and maintaining equipment
- personal protective equipment
- specifications:
  - work procedures and operating instructions or instructions.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>



## FBPBPG2006 Operate the bottle capsuling process

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

### Application

This unit of competency describes the skills and knowledge required to set up, operate and shut down a range of semi-automated and automated bottling and packaging equipment involved in the bottle capsuling process.

The unit applies to individuals who work under general supervision in bottling and packaging and are responsible for operating and monitoring a bottle capsuling process and associated equipment.

All work must be carried out to comply with workplace procedures, according to state/territory health and safety, and food safety regulations, legislation and standards that apply to the workplace.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

### Pre-requisite Unit

Nil

### Unit Sector

Bottling and Packaging (BPG)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare to operate bottle capsuling equipment	1.1 Confirm work instructions, including identifying potential health and safety in the workplace hazards and controls with supervisor

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	1.2 Select, fit and use appropriate personal protective equipment 1.3 Ensure that product and dry goods are available to meet bottle capsuling requirements 1.4 Ensure that services are available and ready for operation 1.5 Prepare bottle capsuling equipment and check to confirm readiness for use 1.6 Setup equipment to meet bottle capsuling requirements
2. Operate and monitor the bottle capsuling process	2.1 Start up bottle capsuling equipment according to operating instructions 2.2 Monitor control points to confirm performance is maintained within equipment operation specification 2.3 Ensure bottles are supplied according to requirements 2.4 Monitor bottle capsuling equipment to confirm operating condition 2.5 Identify, rectify and report out-of-specification end product, process and equipment performance according to workplace procedures 2.6 Liaise with operators in other work areas to ensure ongoing bottling process runs efficiently and effectively
3. Shut down the bottle capsuling process	3.1 Shut down bottle capsuling equipment according to operating instructions 3.2 Prepare bottle capsuling equipment for cleaning according to workplace procedures
4. Conduct housekeeping activities	4.1 Carry out cleaning procedures 4.2 Collect, treat and dispose of or recycle waste generated by both the process and cleaning procedures 4.3 Record workplace information according to workplace procedures

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"><li>Interpret key messages in standard operating procedures</li></ul>
Navigate the world of work	<ul style="list-style-type: none"><li>Follow clear instructions within defined level of responsibility</li><li>Recognise organisational expectations and follows explicit protocols and procedures</li><li>Seek clarification when required</li></ul>
Get the work done	<ul style="list-style-type: none"><li>Respond to routine problems using step by step instruction and procedures</li></ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPBP2006 Operate the bottle capsuling process	FDFBP2009A Operate the bottle capsuling process	Updated to meet Standards for Training Packages  Minor changes to Performance Criteria to clarify intent	Equivalent unit

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## Assessment Requirements for FBPBPG2006 Operate the bottle capsuling process

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

### Performance Evidence

An individual demonstrating competency must satisfy all of the elements and performance criteria in this unit.

There must be evidence that the individual has safely and effectively set up, operated and shut down all items of equipment in the bottle capsuling process on at least one occasion, including:

- confirming equipment is ready for operation, including:
  - cleaning and sanitation processes are completed
  - capsule magazines, wax disc hoppers and wax pots are operational
  - any adjacent coding equipment is set up and operational
  - line controls (conveyors) are operational
  - line lube is operational and being correctly applied
  - heat shrink settings are adjusted to suit capsule type
  - metal-spinner tension is correct for capsule type
  - equipment is set for correct bottle height
  - hot melt for wax disc application is operational
  - bottle feeds are filled with correct screws and stars and accurately aligned
- monitoring and adjusting process equipment to achieve required quality outcomes, ensuring:
  - compressed air pressure is at correct level
  - supply and quality of bottles to be capsuled
  - fill heights of bottles to be capsuled
  - clarity of content in bottles being capsuled
  - ongoing quality and appearance (shrinkage and fit) of capsule application
  - ongoing quality of materials used in the process
  - glue application and supply to wax disc process
- taking corrective action in response to typical faults and inconsistencies
- liaising with other work areas involved in the packaging process

- completing workplace records as required
- applying safe work practices and identifying workplace health and safety hazards and controls.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- purpose and principles of bottle capsuling equipment
- key features of bottle capsuling equipment and components
- links to related processes
- effect of process stages on end product
- quality characteristics and uses of end product
- effect of product and materials on process outcomes
- emergency and troubleshooting procedures
- process specification, procedures and operating parameters
- equipment and instrumentation components, purpose and operation
- basic operating principles of process control systems where relevant
- services required
- significance and methods of monitoring control points
- common causes of variation and corrective action required
- technological advances that include automation, such as use of robots
- health and safety in the workplace hazards and controls
- routine maintenance requirements
- lock-out and tag-out procedures
- procedures and responsibility for reporting problems
- shutdown and cleaning requirements associated with changeovers and types of shutdown
- recording requirements and procedures.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - skills must be demonstrated in a workplace setting or an environment that accurately represents a real workplace
- resources, equipment and materials:
  - bottle capsuling equipment
  - bottle capsuling resources and consumables
  - tools and equipment for adjusting and maintaining equipment
  - personal protective equipment
- specifications:
  - work procedures and operating instructions or instructions.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# FBPBPG2007 Operate manual bottling and packaging processes

## Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

## Application

This unit of competency describes the skills and knowledge required to set up, operate and shut down a range of manual and basic bottling and packaging equipment and to perform associated manual tasks in a bottling and packaging environment.

The unit applies to individuals who work under general supervision in bottling and packaging and are responsible for operating and monitoring a manual bottling and packaging process and associated equipment.

All work must be carried out to comply with workplace procedures, according to state/territory health and safety, and food safety regulations, legislation and standards that apply to the workplace.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

## Pre-requisite Unit

Nil

## Unit Sector

Bottling and Packaging (BPG)

## Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare to operate manual or basic bottling and packaging	1.1 Confirm work instructions, including identifying potential health and safety in the workplace hazards and controls with supervisor

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
equipment	1.2 Select, fit and use appropriate personal protective equipment 1.3 Ensure that product and materials are available to meet production requirements 1.4 Prepare product and materials to meet production requirements 1.5 Ensure that services are available and ready for operation 1.6 Prepare equipment and check to confirm readiness for use 1.7 Set up equipment to meet production requirements
2. Operate and monitor manual or basic bottling and packaging processes	2.1 Start up equipment for manual bottling and packaging according to workplace procedures 2.2 Monitor control points to confirm performance is maintained within specification 2.3 Ensure that bottling and packaging output meets specification 2.4 Monitor equipment to confirm operating condition 2.5 Identify, rectify and report out-of-specification product, process and equipment performance according to workplace procedures
3. Shut down manual or basic bottling and packaging processes	3.1 Shut down manual bottling and packaging equipment according to workplace procedures 3.2 Prepare equipment for cleaning according to workplace procedures
4. Conduct housekeeping activities	4.1 Carry out cleaning and maintenance procedures 4.2 Collect, treat and dispose of or recycle waste generated by both the process and cleaning procedures 4.3 Record workplace information according to workplace procedures

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"> <li>Interpret key messages in standard operating procedures</li> </ul>



Skill	Description
Navigate the world of work	<ul style="list-style-type: none"><li>Follow clear instructions within defined level of responsibility</li><li>Recognise organisational expectations and follows explicit protocols and procedures</li><li>Seek clarification when required</li></ul>
Get the work done	<ul style="list-style-type: none"><li>Respond to routine problems using step by step instruction and procedures</li></ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPBP2007 Operate manual bottling and packaging processes	FDFBP2010A Operate manual bottling and packaging processes	Updated to meet Standards for Training Packages  Minor changes to Performance Criteria to clarify intent	Equivalent unit

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# Assessment Requirements for FBPBPG2007 Operate manual bottling and packaging processes

## Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

## Performance Evidence

An individual demonstrating competency must satisfy all of the elements and performance criteria in this unit.

There must be evidence that the individual has safely and effectively set up, operate and shut down at all items of equipment in a manual or basic bottling and packaging process, to bottle and pack a minimum of 20 items, including:

- confirming equipment is ready for operation, including:
  - confirming hygiene and sanitation standards have been met
  - adjusting air pressure
  - checking conveyor speed
  - adjusting heights and widths to accommodate specific product and material specifications
  - completing a test run
  - confirming flow of line lube and water
  - realigning diverters and turners to ensure flow is as instructed
  - cartons meet specifications
  - bottles meet specification
- monitoring and adjusting equipment to achieve required quality outcomes, ensuring:
  - bottle cleanliness and draining effectiveness
  - dryness of bottles
  - glue length
  - strength of carton seals
  - shrinkage or fit of capsules
  - stacking and stacking patterns meet specifications
  - bottle counters are re-set at the start of each product
  - stencils applied are clear and legible
  - bottle contents levels meet specification
  - ongoing quality of materials used

- ongoing appearance of applications
- taking corrective action in response to typical faults and inconsistencies
- completing workplace records as required
- applying safe work practices and identifying health and safety in the workplace hazards and controls.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- workplace information to identify bottling and packaging requirements for process specification, procedures and operating parameters
- stages and changes which occur during the equipment operation
- effect of equipment operation stages on end product and output
- quality characteristics and uses of end product and output
- materials preparation requirements and effect of variation on the equipment operation
- emergency and troubleshooting procedures, including failure of services
- process specification, procedures and operating parameters
- equipment and instrumentation components, purpose and operation
- services required
- significance and method of monitoring control points within the equipment operation
- common causes of variation and corrective action required
- health and safety in the workplace hazards and controls, including manual handling
- lock-out and tag-out procedures
- procedures and responsibility for reporting problems
- shutdown sequence
- shutdown and cleaning requirements associated with changeovers and types of shutdown
- routine maintenance requirements
- waste handling requirements and procedures
- recording requirements and procedures.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - skills must be demonstrated in a workplace setting or an environment that accurately represents a real workplace
- resources, equipment and materials:
  - manual bottling and packaging equipment
  - manual bottling and packaging resources and consumables
  - tools and equipment for adjusting and maintaining equipment
  - personal protective equipment

- specifications:
  - work procedures and operating instructions or instructions.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## FBPBPG2008 Perform basic packaging tests and inspections

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

### Application

This unit of competency describes the skills and knowledge required to carry out the tests and inspections required to monitor product and process at various control points on an operating packaging line.

The unit applies to individuals who work under general supervision in bottling and packaging and are responsible for applying basic quality assurance principles to product.

All work must be carried out to comply with workplace procedures, according to state/territory health and safety, and food safety regulations, legislation and standards that apply to the workplace.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

### Pre-requisite Unit

Nil

### Unit Sector

Bottling and Packaging (BPG)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Identify requirements for packaging testing	1.1 Confirm work instructions and identify potential health and safety in the workplace hazards and controls with supervisor 1.2 Select, fit and use appropriate personal protective equipment

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	1.3 Identify key packaging equipment and recognise its function and operating principles
2. Prepare for testing	2.1 Receive and register samples and prepare for testing 2.2 Ensure that services are available and ready for use 2.3 Select, prepare and check test equipment and materials are available and ready for use according to testing procedures 2.4 Identify and report defects in samples, materials and test equipment
3. Perform on-line packaging tests	3.1 Carry out test method as directed 3.2 Use equipment and materials as directed 3.3 Read and interpret results according to testing procedures 3.4 Identify out-of-standard results and take appropriate action according to workplace procedures 3.5 Liaise with operators in other work areas to ensure ongoing packaging process runs efficiently and effectively
4. Complete on-line packaging tests	4.1 Dispose of waste generated according to workplace procedures 4.2 Clean, store and maintain test equipment according to test equipment instructions 4.3 Carry out work in accordance with workplace environmental guidelines 4.4 Record workplace information according to workplace procedures

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Oral communication	<ul style="list-style-type: none"> <li>Seek clarification when required</li> </ul>
Navigate the world of work	<ul style="list-style-type: none"> <li>Follow clear instructions within defined level of responsibility</li> <li>Recognise worksite expectations and follows explicit protocols</li> </ul>

Skill	Description
	and procedures

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPBP2008 Perform basic packaging tests and inspections	FDFLAB2003A Perform basic packaging tests and inspections	Updated to meet Standards for Training Packages  Minor changes to Performance Criteria to clarify intent  Recoded to Bottling and Packaging sector (BPG)  Prerequisite removed	Equivalent unit

## Links

Companion Volume Implementation Guides are found in VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## Assessment Requirements for FBPBPG2008 Perform basic packaging tests and inspections

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

### Performance Evidence

An individual demonstrating competency must satisfy all of the elements and performance criteria in this unit.

There must be evidence that the individual has performed basic packaging tests and inspections at a minimum of two different critical control points on an operating packaging line, including:

- confirming test equipment is ready for operation, including:
  - recognising and rejecting contaminated or faulty glassware and equipment
  - conducting safety checks
  - replacing consumables
  - setting instrument and calibration
- operating test equipment according to workplace procedures and manufacturer instructions
- carrying out routine tests
- reading and interpreting results
- recording results as required
- monitoring the process and test equipment to identify out-of-specification results or non-compliance
- taking corrective action in response to out-of-specification results, anomalies or non-compliance
- reporting and/or recording corrective action according to workplace procedures
- following procedures to repeat or validate results
- liaising with other work areas involved the packaging process
- applying safe work practices and identifying health and safety in the workplace hazards and controls.



## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- common bottling and packaging techniques
- enterprise policy and procedure with regard to:
  - packaging line quality assurance testing
  - health and safety in the workplace
- purpose and principles of the test
- relevant standards and specifications, and basic legislative requirements (e.g. quality, health, safety, labelling and equipment) and their implications
- procedure specification and operating parameters
- effect of sampling and testing stages on results or outcomes
- start-up and set-up procedures required
- common causes and knock-on effects of inaccuracies and preventive or corrective action required
- normal range of results on products or packaging items tested
- emergency procedures for a range of operational problems
- procedures and responsibility for reporting problems
- health and safety in the workplace hazards and controls
- cleaning and sanitising requirements of equipment and work area
- sampling plan and procedures relevant to work task.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - skills must be demonstrated in a workplace setting or an environment that accurately represents a real workplace
- resources, equipment and materials:
  - tools and equipment for conducting tests
  - personal protective equipment
  - instructions, information, specifications and schedules
  - products and materials on which to conduct tests
- specifications:
  - work procedures, including advice on company practices, safe work practices, food safety, quality and environmental requirements

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## FBPBPG3001 Operate the bottle filling process

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

### Application

This unit of competency describes the skills and knowledge required to set up, operate and shut down a range of semi-automated and automated bottling and packaging equipment involved in the bottle filling process in a bottling and packing environment.

This unit applies to individuals who take responsibility for applying basic operating principles for, and the operation and monitoring of, a bottle filling process and associated equipment.

All work must be carried out to comply with workplace procedures, according to state/territory health and safety, and food safety regulations, legislation and standards that apply to the workplace.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

### Pre-requisite Unit

Nil

### Unit Sector

Bottling and Packaging (BPG)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare to operate bottle filling equipment	1.1 Interpret work instructions and identify potential health and safety in the workplace hazards and controls 1.2 Select, fit and use appropriate personal protective equipment

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	1.3 Ensure that product and materials are available to meet bottle requirements 1.4 Prepare product and materials to meet bottle requirements 1.5 Ensure that services are available and ready for operation 1.6 Prepare bottle filling equipment and check to confirm readiness for use according to operating instructions 1.7 Set equipment to meet bottle requirements
2. Operate and monitor the bottle filling process	2.1 Start up bottle filling equipment according to operating instructions 2.2 Monitor control points to confirm performance is maintained within specification 2.3 Fill bottles according to specification 2.4 Monitor bottle filling equipment to confirm operating condition 2.5 Identify, rectify and report out-of-specification end product, process and equipment performance 2.6 Liaise with operators in other work areas to ensure ongoing bottling process runs efficiently and effectively
3. Shut down the bottle filling process	3.1 Shut down bottle filling equipment according to operating instructions 3.2 Prepare bottle filling equipment for cleaning according to workplace procedures 3.3 Collect, treat and dispose of or recycle waste generated by both the process and cleaning procedures according to workplace procedures 3.4 Conduct work according to workplace environmental guidelines 3.5 Record workplace information according to workplace requirements

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"><li>Interpret instructions and specifications information to determine and apply requirements in the bottling process</li></ul>
Get the work done	<ul style="list-style-type: none"><li>Respond to predictable routine problems, faults and out of specification issues and implements standard or logical solutions</li></ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPBP3001 Operate the bottle filling process	FDFBP3001A Operate the bottle filling process	Updated to meet Standards for Training Packages  Minor changes to Performance Criteria to clarify intent	Equivalent unit

## Links

Companion Volume Implementation Guides are found in VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# Assessment Requirements for FBPBPG3001 Operate the bottle filling process

## Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

## Performance Evidence

An individual demonstrating competency must satisfy all of the elements and performance criteria in this unit.

There must be evidence that the individual has safely and effectively set up, operated and shut down an automated or semi-automated bottle filling system on a minimum of one occasion, including:

- confirming equipment is ready for operation, including:
  - cleaning and sanitation processes are completed
  - filling tubes meet specification
  - doser is set up and is operational
  - bottle feeds are filled with correct screws and stars and accurately aligned
  - height of filler is adjusted to suit bottle height
  - lines and equipment are flushed with product to be bottled
- monitoring and adjusting process equipment to achieve required quality outcomes, ensuring:
  - compressed air pressure is at correct level
  - vacuum pressure is at correct level
  - product temperature
  - fill height and volume
- taking corrective action in response to typical faults and inconsistencies
- liaising with other work areas involved the packaging process
- completing workplace records as required
- applying safe work practices and identifying health and safety in the workplace hazards and controls.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- purpose and principles of bottle filling equipment
- key features of bottle filling equipment and components
- links to related processes
- effect of process stages on end product
- quality characteristics and uses of end product
- effect of product and materials on process outcomes
- emergency and troubleshooting procedures
- process specification, procedures and operating parameters
- equipment and instrumentation components, purpose and operation
- basic operating principles of process control systems where relevant
- significance and methods of monitoring control points
- common causes of variation and corrective action required
- technological advances that include automation and use of robots
- health and safety in the workplace hazards and controls
- routine maintenance requirements
- lock-out and tag-out procedures
- procedures and responsibility for reporting problems
- shutdown and cleaning requirements associated with changeovers and types of shutdown
- recording requirements and procedures.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - skills must be demonstrated in a workplace setting or an environment that accurately represents a real workplace
- resources, equipment and materials:
  - bottling equipment
  - resources, tools and consumables
  - personal protective clothing and equipment
  - products, consumables and materials for filling purposes
  - cleaning procedures, materials and equipment
  - documentation and recording requirements and procedures
- specifications:
  - specifications and schedules
  - equipment operating instructions, service records and corresponding information

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>



## FBPBPG3002 Operate the labelling process

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

### Application

This unit of competency describes the skills and knowledge required to set up, operate and shut down a range of semi-automated and automated product labelling equipment.

This unit applies to individuals who work under broad direction and exercise autonomy and judgement, and are responsible for applying basic principles to the operation and monitoring of a labelling process and associated equipment.

All work must be carried out to comply with workplace procedures, according to state/territory health and safety, and food safety regulations, legislation and standards that apply to the workplace.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

### Pre-requisite Unit

Nil

### Unit Sector

Bottling and Packaging (BPG)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare to operate labelling equipment	1.1 Interpret work instructions and identify potential health and safety in the workplace hazards and controls 1.2 Select, fit and use appropriate personal protective equipment

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	1.3 Ensure that product and materials are available to meet labelling requirements 1.4 Prepare product and materials to meet labelling requirements 1.5 Ensure that services are available and ready for operation 1.6 Prepare product labelling equipment and check to confirm readiness for use according to operating instructions 1.7 Set equipment to meet labelling requirements
2. Operate and monitor the labelling process	2.1 Start up labelling equipment according to operating instructions 2.2 Monitor control points to confirm performance is maintained within specification 2.3 Products are labelled according to specification 2.4 Monitor labelling equipment to confirm operating condition 2.5 Identify, rectify and report out-of-specification end product, process and equipment performance 2.6 Liaise with operators in other work areas to ensure ongoing packaging process runs efficiently and effectively
3. Shut down the labelling process	3.1 Shut down labelling equipment according to operating instructions 3.2 Prepare labelling equipment for cleaning and maintenance according to workplace procedures
4. Conduct house-keeping activities	4.1 Collect, treat and dispose of or recycle waste generated by both the process and cleaning procedures according to workplace procedures 4.2 Conduct work according to workplace environmental guidelines 4.3 Record workplace information according to workplace requirements

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
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Skill	Description
Oral communication	<ul style="list-style-type: none"><li>Report out of specification details clearly using language, tone and pace appropriate to audience</li></ul>
Get the work done	<ul style="list-style-type: none"><li>Respond to predictable routine problems, faults and out of specification issues, and implements standard or logical solutions</li></ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPBP3002 Operate the labelling process	FDFBP3002A Operate the labelling process	Updated to meet Standards for Training Packages  Minor changes to Performance Criteria to clarify intent	Equivalent unit

## Links

Companion Volume Implementation Guides are found in VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# Assessment Requirements for FBPBPG3002 Operate the labelling process

## Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

## Performance Evidence

An individual demonstrating competency must satisfy all of the elements and performance criteria in this unit.

There must be evidence that the individual has safely and effectively set up, operated and shut down an automated or semi-automated product labelling system on a minimum of one occasion, including:

- confirming equipment is ready for operation, including:
  - heating glue to correct temperature
  - checking glue meets specification according to label type
  - confirming dryness of container in readiness for labels
  - checking labels meet specification of product
  - inserting labels, correctly orientated in magazine
  - feeding label web through application mechanism
- monitoring and adjusting process equipment to achieve required quality outcomes, ensuring:
  - label adhesion
  - label orientation
  - label damage
  - label positioning
  - smooth versus bubbled labels
  - misprinted labels
  - any label or product coding applied as part of the process
- taking corrective action in response to typical faults and inconsistencies
- liaising with other work areas involved in the packaging process
- completing workplace records as required
- applying safe work practices and identifying health and safety in the workplace hazards and controls.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- purpose and principles of labelling equipment
- key features of labelling equipment and components
- links to related processes
- effect of process stages on end product
- quality characteristics of end product
- product and materials preparation requirements and effect of variation on the process which may include effect on end results of:
  - glue temperature
  - glue type
  - wet containers
  - faulty label feed
  - incorrect or inaccurate labels
- emergency and troubleshooting procedures
- process specification, procedures and operating parameters
- equipment and instrumentation components, purpose and operation
- basic operating principles of process control systems where relevant
- services required
- significance and method of monitoring control points within the process
- common causes of variation and corrective action required
- routine maintenance requirements
- health and safety in the workplace hazards and controls
- lock-out and tag-out procedures
- procedures and responsibility for reporting problems
- shutdown and cleaning requirements associated with changeovers and types of shutdown
- waste handling requirements and procedures
- recording requirements and procedures.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - skills must be demonstrated in a workplace setting or an environment that accurately represents a real workplace
- resources, equipment and materials:
  - a product labelling context
  - work procedures and instructions
  - personal protective equipment
  - products, consumables and materials

- documentation and recording requirements and procedures.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## FBPBPG3003 Operate the softpack filling process

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

### Application

This unit of competency describes the skills and knowledge required to set up, operate and shut down a range of semi-automated and automated bottling and packaging equipment involved in the softpack filling process.

This unit applies to individuals working under broad direction who exercise autonomy and judgement and are responsible for the operating and monitoring of a softpack filling process and associated bottling and packaging equipment.

All work must be carried out to comply with workplace procedures, according to state/territory health and safety, and food safety regulations, legislation and standards that apply to the workplace.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

### Pre-requisite Unit

Nil

### Unit Sector

Bottling and Packaging (BPG)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare to operate softpack filling equipment	1.1 Interpret work instructions and identify potential health and safety in the workplace hazards and controls

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	1.2 Select, fit and use appropriate personal protective equipment 1.3 Confirm that product and materials are available to meet filling requirements 1.4 Prepare product and materials to meet filling requirements 1.5 Confirm that services are available and ready for operation 1.6 Prepare softpack filling equipment and check to confirm readiness for use according to operating instructions 1.7 Set equipment to meet filling requirements
2. Operate and monitor the softpack filling process	2.1 Start up softpack filling equipment according to operating instructions 2.2 Monitor control points to confirm performance is maintained within specification 2.3 Fill softpacks according to specification 2.4 Monitor softpack filling equipment to confirm operating condition 2.5 Identify, rectify and report out-of-specification end product, process and equipment performance 2.6 Liaise with operators in other work areas to ensure ongoing filling process runs efficiently and effectively
3. Shut down the softpack filling process	3.1 Shut down softpack filling equipment according to operating instructions 3.2 Prepare softpack filling equipment for cleaning and maintenance according to workplace procedures
4. Complete house-keeping activities	4.1 Collect, treat and dispose of or recycle waste generated by both the process and cleaning procedures according to workplace procedures 4.2 Conduct work according to workplace environmental guidelines 4.3 Record workplace information according to workplace requirements



## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Oral communication	<ul style="list-style-type: none"><li>Report out-of-specification details appropriately</li></ul>
Get the work done	<ul style="list-style-type: none"><li>Respond to predictable routine problems, faults and out-of-specification issues, and implements standard or logical solutions</li></ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPBP3003 Operate the softpack filling process	FDFBP3003A Operate the softpack filling process	Updated to meet Standards for Training Packages  Minor changes to Performance Criteria to clarify intent	Equivalent unit

## Links

Companion Volume Implementation Guides are found in VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# Assessment Requirements for FBPBPG3003 Operate the softpack filling process

## Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

## Performance Evidence

An individual demonstrating competency must satisfy all of the elements and performance criteria in this unit.

There must be evidence that the individual has safely and effectively set up, operated and shut down an automated or semi-automated softpack filling system on a minimum of one occasion, including:

- confirming equipment is ready for operation, including:
  - checking head alignment and operation
  - testing bag weights and volumes
  - completing a test run
  - flushing lines and equipment with product to be packaged
  - making minor adjustments as required
  - confirming cleaning and sanitation processes are completed
  - checking evacuation of air from softpack via vacuum
  - ensuring inert gas release at end of filling cycle
- monitoring and adjusting process equipment to achieve required quality outcomes, ensuring:
  - continuity of supply of softpacks to filler
  - correct bag weight and volumes
  - bag quality and integrity (leaks)
  - inert gas is released
  - vacuum prior to fill
- taking corrective action in response to typical faults and inconsistencies
- liaising with other work areas involved in the packaging process
- completing workplace records as required
- applying safe work practices and identifying health and safety in the workplace hazards and controls.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- purpose and principles of softpack filling equipment
- key features of softpack filling equipment and components
- links to related processes
- effect of process changes on end product
- quality characteristics of end product
- product and materials preparation requirements and effect of variation on process
- emergency and troubleshooting procedures
- process specification, procedures and operating parameters
- equipment and instrumentation components, purpose and operation
- basic operating principles of process control systems where relevant
- services required
- significance and method of monitoring control points within the process
- common causes of variation and corrective action required
- health and safety in the workplace hazards and controls
- lock-out and tag-out procedures
- routine maintenance requirements
- procedures and responsibility for reporting problems
- environmental issues and controls
- shutdown and cleaning requirements associated with changeovers and types of shutdown
- waste handling requirements and procedures
- recording requirements and procedures.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - skills must be demonstrated in a workplace setting or an environment that accurately represents a real workplace
- resources, equipment and materials:
  - a softpack filling context
  - products, materials and consumables
  - personal protective equipment
  - equipment, services and corresponding information as required
- specifications:
  - work procedures, including advice on company practices, safe work practices, food safety, quality and environmental requirements
  - instructions, information, specifications and schedules to match the softpack filling task.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## FBPBPG3004 Operate the bottle sealing process

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

### Application

This unit of competency describes the skills and knowledge required to set up, operate and shut down a range of semi-automated bottling and packaging equipment involved in the bottle sealing process in a bottling and packing environment.

The unit applies to individuals who are responsible for operating and monitoring a bottle sealing process and associated equipment. They work under broad direction and exercise autonomy and judgement where required.

All work must be carried out to comply with workplace procedures, according to state/territory health and safety, and food safety regulations, legislation and standards that apply to the workplace.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

### Pre-requisite Unit

Nil

### Unit Sector

Bottling and Packaging (BPG)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare to operate bottle sealing equipment	1.1 Interpret work instructions, including identifying potential health and safety in the workplace hazards and controls

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	1.2 Select, fit and use appropriate personal protective equipment 1.3 Ensure that product and dry goods are available to meet bottle sealing requirements 1.4 Ensure that services are available and ready for operation 1.5 Prepare bottle sealing equipment and check to confirm readiness for use 1.6 Set-up equipment to meet bottle sealing requirements
2. Operate and monitor the bottle sealing process	2.1 Start up bottle sealing equipment according to operating instructions 2.2 Monitor control points to confirm performance is maintained within equipment operation specification 2.3 Seal bottles according to requirements 2.4 Monitor bottle sealing equipment to confirm operating condition 2.5 Identify, rectify and report out-of-specification end product, process and equipment performance according to workplace procedures 2.6 Liaise with operators in other work areas to ensure ongoing bottling process runs efficiently and effectively
3. Shut down the bottle supply process	3.1 Shut down bottle sealing equipment according to operating instructions 3.2 Prepare bottle sealing equipment for cleaning according to workplace procedures
4. Conduct housekeeping activities	4.1 Carry out cleaning procedures 4.2 Collect, treat and dispose of or recycle waste generated by both the process and cleaning procedures 4.3 Record workplace information according to workplace procedures

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"><li>Interpret messages in standard operating procedures</li></ul>
Navigate the world of work	<ul style="list-style-type: none"><li>Recognise organisational expectations and follows explicit protocols and procedures</li><li>Seek clarification when required</li></ul>
Get the work done	<ul style="list-style-type: none"><li>Problem solve issues as they arise</li></ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPBP3004 Operate the bottle sealing process	FDFBP2004A Operate the bottle sealing process	Updated to meet Standards for Training Packages  Minor changes to Performance Criteria to clarify intent  Unit code updated to AQF3 to reflect complexity of competency	Equivalent unit

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# Assessment Requirements for FBPBPG3004 Operate the bottle sealing process

## Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

## Performance Evidence

An individual demonstrating competency must satisfy all of the elements and performance criteria in this unit.

There must be evidence that the individual has safely and effectively set up, operated and shut down all items of equipment on a bottle sealing process on a minimum of one occasion, including:

- confirming equipment is ready for operation, ensuring:
  - cleaning and sanitation processes are completed
  - magazine, hoppers, chutes and guides are operational
  - any adjacent coding equipment is set up and operational
  - line controls (conveyors) are operational
  - line lube is operational and being correctly applied
  - torque testers are correctly calibrated
  - equipment is set for correct bottle height
  - vacuum pump is operational
  - vacuum block and corker jaws are correctly lubricated
  - bottle feeds are filled with correct screws and stars and accurately aligned
- monitoring and adjusting process equipment to achieve required quality outcomes, ensuring:
  - compressed air pressure is at correct level
  - torque on Roll On Tamper Evident (ROTE) seals
  - cork depths as established by the workplace
  - effective seal on crown seals
  - correct vacuum is being applied to head space in bottle
  - wire muselet is consistently applied
  - appearance of sealing application to approved quality
  - quality materials are used in the sealing process
- taking corrective action in response to typical faults and inconsistencies



- liaising with other work areas involved the packaging process
- completing workplace records as required
- applying safe work practices and identifying health and safety in the workplace hazards and controls.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- purpose and principles of bottle sealing equipment
- key features of bottle sealing equipment and components
- links to related processes
- stages and changes which occur during the process
- effect of process stages on end product
- quality characteristics and uses of end product
- effect of product and materials on process outcomes
- emergency and troubleshooting procedures
- process specification, procedures and operating parameters
- equipment and instrumentation components, purpose and operation
- basic operating principles of process control systems where relevant
- services required
- significance and methods of monitoring control points
- common causes of variation and corrective action required
- technological advances that include automation
- health and safety in the workplace hazards and controls
- routine maintenance requirements
- lock-out and tag-out procedures
- procedures and responsibility for reporting problems
- shutdown and cleaning requirements associated with changeovers and types of shutdown
- recording requirements and procedures
- equipment operation and out-of-specification actions for:
  - compressed air pressure
  - torque on ROTE seals, Roll On Pilfer Proof, Lux
  - inappropriate cork depths
  - ineffective seal on crown seals
  - incorrect vacuum applied to head space in bottle
  - inconsistent application of wire muselet
  - poor appearance of sealing application
  - poor quality of dry goods used in the sealing process.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - skills must be demonstrated in a workplace setting or an environment that accurately represents a real bottling and packaging workplace
- resources, equipment and materials:
  - bottle sealing equipment
  - bottle sealing resources and consumables
  - tools and equipment for adjusting and, maintaining equipment
  - personal protective equipment
- specifications:
  - work procedures and operator's manuals or instructions.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## FBPBPG3005 Operate the tirage and transfer process

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

### Application

This unit of competency describes the skills and knowledge required to set up, operate and shut down a range of semi-automated and automated equipment involved in the tirage and transfer process.

The unit applies to individuals who are responsible for operating and monitoring a tirage and transfer process and associated bottling and packaging equipment in the wine industry. They work under broad direction and exercise autonomy and judgement where required.

All work must be carried out to comply with workplace procedures, according to state/territory health and safety, and food safety regulations, legislation and standards that apply to the workplace.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

### Pre-requisite Unit

Nil

### Unit Sector

Bottling and Packaging (BPG)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare to operate tirage and transfer equipment	1.1 Interpret work instructions, including identifying potential health and safety in the workplace hazards and controls

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	1.2 Select, fit and use appropriate personal protective equipment 1.3 Ensure that product and materials are available and ready for use to meet tirage and transfer process requirements 1.4 Prepare product and materials to meet the tirage and transfer requirements 1.5 Ensure that services are available and ready for operation 1.6 Prepare tirage and transfer equipment and check to confirm readiness for use 1.7 Set up equipment to meet tirage and transfer requirements
2. Operate and monitor the tirage and transfer process	2.1 Start-up tirage and transfer equipment according to operating instructions 2.2 Monitor control points to confirm performance and maintain within equipment operation specification 2.3 Ensure tirage and transfer output meets specification 2.4 Monitor tirage and transfer equipment to confirm operating condition 2.5 Identify, rectify and report out-of-specification end product, process and equipment performance according to workplace procedures
3. Shut down the tirage and transfer process	3.1 Shut down tirage and transfer equipment according to operating instructions 3.2 Prepare tirage and transfer equipment for cleaning according to workplace procedures
4. Conduct housekeeping activities	4.1 Carry out cleaning procedures 4.2 Collect, treat and dispose of or recycle waste generated by both the process and cleaning procedures 4.3 Record workplace information according to workplace procedures

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"> <li>Interpret textual information in process documentation</li> </ul>
Navigate the world of work	<ul style="list-style-type: none"> <li>Recognise organisational expectations and follow protocols and procedures</li> <li>Recognise own work performance and seek assistance where required</li> </ul>
Get the work done	<ul style="list-style-type: none"> <li>Problem solve issues as they arise</li> </ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPBP3005 Operate the tirage and transfer process	FDFBP2007A Operate the tirage and transfer process	<p>Updated to meet Standards for Training Packages</p> <p>Minor changes to Performance Criteria for clarity</p> <p>Unit code updated to AQF3 to reflect complexity of competency</p>	Equivalent unit

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## Assessment Requirements for FBPBPG3005 Operate the tirage and transfer process

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

### Performance Evidence

An individual demonstrating competency must satisfy all of the elements and performance criteria in this unit.

There must be evidence that the individual has safely and effectively prepared, operated and shut down all items of equipment in the tirage and transfer process on a minimum of one occasion including:

- confirming equipment used for the tirage and transfer process is ready for operation ensuring:
  - cleaning and sanitation processes are completed
  - filling tubes meet specification
  - bottle feeds are filled with correct screws and stars and accurately aligned
  - crown seal hopper, chutes and guides are operational
  - crown sealer is operational
  - vacuum is operational
  - rinser is operational
  - inert gas is operational
  - disgorger bottle piercing tips are straight and correctly aligned to receive bottles
  - de-crowner is operational
  - line controls and conveyors are operational
  - automatic binning and de-binning is set up for operation
  - filler, crown sealer, rinser, disgorger and de-crowner are adjusted to suit bottle height
  - lines and equipment are flushed with product to be bottled
- operating, monitoring and adjusting process equipment to achieve required quality outcomes ensuring:
  - gas and compressed air pressures are at correct level
  - vacuum is operational
  - product or wine base temperature is set correctly
  - fill height and volume is set correctly

- ongoing appearance and quality of wine filled to tirage
- effectiveness of crown seals in sealing wine in bottle
- disgorging bottle piercing tips are not bent or incorrectly aligned
- ongoing disgorging is draining wine efficiently
- de-crowner is removing all crown seals
- bottles are rinsed efficiently and are suitable for filling
- vacuum and gas are being applied
- bins being filled to tirage are clearly marked as specified
- all identifying markings are removed from bins once wine is transferred
- smooth flow of automatic binning and de-binning
- monitoring supply and flow of product and materials to and from the process
- taking corrective action in response to typical faults and inconsistencies, out-of-specification results or non-compliance
- safely shutting down equipment in response to routine shut down requirements
- cleaning and sanitising equipment according to workplace procedures
- sorting, treating, recycling or disposing of wastes according to workplace procedures
- completing workplace records as required
- applying safe work practices, identifying hazards and controlling risks.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- purpose and principles of tirage and transfer equipment
- key features of tirage and transfer equipment and components
- health and safety in the workplace hazards and controls for the use of tirage and transfer equipment
- personal protective equipment required for operating the tirage and transfer process
- workplace environmental procedures and controls
- set up, operation and shut down of equipment involved in the tirage and transfer process, including:
  - equipment and instrumentation components, purpose and operation
  - significance and methods of monitoring control points
  - common causes of variation and corrective action required
  - routine maintenance requirements
  - procedures and responsibility for reporting problems
  - routine shutdown sequence
- necessary services for process including power, compressed air, water, inert gas, steam and vacuum
- process specification, procedures and operating parameters
- basic operating principles of process control systems where relevant
- technological advances that include automation

- shutdown and maintenance procedures including:
  - routine maintenance procedures
  - shutdown and cleaning requirements associated with changeovers and types of shutdown
  - shut down of equipment in response to an emergency situation
  - preparing and dismantling equipment for cleaning
  - collection, treatment and handling requirement for waste generated by processes and cleaning operation
  - cleaning and sanitising equipment according to workplace procedures
- workplace procedures for recording information.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - skills must be demonstrated in a workplace setting or an environment that accurately represents a real bottling and packaging workplace
- resources, equipment and materials:
  - wine operations tirage and transfer equipment
  - tirage and transfer resources and consumables
  - tools and equipment for adjusting and maintaining equipment
  - personal protective equipment
- specifications:
  - workplace procedures and operating instructions.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>



# FBPBPG3006 Operate traditional sparkling wine processes

## Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

## Application

This unit of competency describes the skills and knowledge required to set up, operate and shut down a range of manual, semi-automated and automated equipment involved in the traditional sparkling wine processes of shaking, neck freezing, de-crowning, dosing and topping up.

The unit applies to individuals who are responsible for operating and monitoring traditional sparkling wine processes and associated equipment in the bottling and packaging industry. They work under broad direction and exercise autonomy and judgement where required.

All work must be carried out to comply with workplace procedures, according to state/territory health and safety, and food safety regulations, legislation and standards that apply to the workplace.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

## Pre-requisite Unit

Nil

## Unit Sector

Bottling and Packaging (BPG)

## Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare to operate traditional sparkling	1.1 Interpret work instructions, including identifying potential health and safety in the workplace hazards and controls

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
wine equipment	1.2 Select, fit and use appropriate personal protective equipment 1.3 Ensure that product and materials are available and ready for use to meet traditional sparkling wine process requirements 1.4 Prepare product and materials to meet traditional sparkling wine process requirements 1.5 Ensure that services are available and ready for operation 1.6 Prepare traditional sparkling wine equipment and check to confirm readiness for use 1.7 Set up equipment to meet traditional sparkling wine requirements
2. Operate and monitor traditional sparkling wine processes	2.1 Start-up traditional sparkling wine equipment according to operating instructions 2.2 Monitor control points to confirm performance is maintained within equipment operation specification 2.3 Ensure that traditional sparkling wine output meets specification 2.4 Monitor traditional sparkling wine equipment to confirm operating condition 2.5 Identify, rectify and report out-of-specification end product, process and equipment performance according to workplace procedures
3. Shut down traditional sparkling wine processes	3.1 Shut down traditional sparkling wine equipment according to operating instructions 3.2 Prepare traditional sparkling wine equipment for cleaning according to workplace procedures
4. Conduct housekeeping activities	4.1 Carry out cleaning procedures 4.2 Collect, treat and dispose of or recycle waste generated by both the process and cleaning procedures 4.3 Record workplace information according to workplace procedures

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"> <li>Interpret textual information in process documentation</li> </ul>
Navigate the world of work	<ul style="list-style-type: none"> <li>Recognise organisational expectations and follow explicit protocols and procedures</li> <li>Recognise own work performance and seek assistance where required</li> </ul>
Get the work done	<ul style="list-style-type: none"> <li>Problem solve issues as they arise</li> </ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPBP3006 Operate traditional sparkling wine processes	FDFBP2006A Operate traditional sparkling wine processes	<p>Updated to meet Standards for Training Packages</p> <p>Minor changes to Performance Criteria for clarity</p> <p>Unit code updated to AQF3 to reflect complexity of competency</p>	Equivalent unit

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## Assessment Requirements for FBPBPG3006 Operate traditional sparkling wine processes

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

### Performance Evidence

An individual demonstrating competency must satisfy all of the elements and performance criteria in this unit.

There must be evidence that the individual has safely and effectively prepared, operated and shut down all items of equipment in the traditional sparkling wine processes of shaking, neck freezing, de-crowning, dosing and topping up on a minimum of one occasion including:

- confirming equipment used for traditional sparkling wine processes is ready for operation ensuring:
  - cleaning and sanitation processes are completed
  - automatic shaker is programmed and operational or manual shaking tables are set up
  - bottles are correctly binned and lids secured for shaking
  - manual or automatic de-binning is set up for operation
  - neck freezer is set up and operational
  - bottle feeds are filled with correct screws and stars and accurately aligned
  - manual or automatic de-crowner is operational
  - manual or automatic dosing equipment is set up and operational
  - manual or automatic topping-up equipment is set up and operational
  - vacuum is operational
  - refrigerant is operational
  - line controls and conveyors are operational
  - all equipment is adjusted to suit bottle height
- operating, monitoring and adjusting process equipment to achieve required quality outcomes ensuring:
  - gas and compressed air pressures are at correct level
  - wine to be shaken is binned and secured correctly
  - automatic bin shaker is operating to program
  - smooth flow of automatic or manual de-binning
  - all identifying markings are removed from bins once wine is transferred

- continued supply of refrigerants
- temperature of neck freezer is at correct level
- smooth flow of bottles through neck freezer
- de-crowner is removing all crown seals
- temperature of top-up wine and liqueur is at correct level
- lees plug is disgorging correctly
- liqueur doser is delivering correct amount
- top-up procedure meets wine level or volume requirements
- monitoring supply and flow of product and materials to and from the process
- taking corrective action in response to typical faults and inconsistencies, out-of-specification results or non-compliance
- safely shutting down equipment in response to routine shut down requirements
- cleaning and sanitising equipment according to workplace procedures
- sorting, treating, recycling or disposing of wastes according to workplace procedures
- completing workplace records as required
- applying safe work practices, identifying hazards and controlling risks.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- industry methods used in the traditional sparkling wine process
- quality characteristics and specifications of sparkling wine products
- health and safety in the workplace hazards and controls, particularly in relation to handling refrigerants and wine stored under pressure
- workplace environmental procedures and controls
- personal protective equipment required for sparkling wine processes
- purpose of equipment used in the traditional sparkling wine process
- necessary services for the traditional sparkling wine process including power, compressed air, water, inert gas, refrigerants, steam and vacuum services
- monitoring of the process including:
  - stages and changes which occur during the process
  - effect of process stages on end product
  - significance and methods of monitoring control points
  - common causes of variation and corrective action required
  - procedures and responsibility for reporting problems
- process specification, procedures and operating parameters
- basic operating principles of process control systems where relevant
- technological advances that include automation
- shutdown and maintenance procedures including:
  - routine maintenance procedures
  - shutdown and cleaning requirements associated with changeovers

- shutdown of equipment in response to an emergency situation
- preparing and dismantling equipment for cleaning
- collection, treatment and handling requirement for waste generated by processes and cleaning operation
- cleaning and sanitising equipment according to workplace procedures
- workplace procedures for recording information.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - skills must be demonstrated in a workplace setting or an environment that accurately represents a real workplace
- resources, equipment and materials:
  - wine operations traditional sparkling wine equipment
  - traditional sparkling wine resources and consumables
  - tools and equipment for adjusting and maintaining equipment
  - personal protective equipment
- specifications:
  - work procedures and operating instructions or instructions.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## FBPBPG3007 Perform packaging equipment changeover

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

### Application

This unit of competency describes the skills and knowledge required to prepare, set up and test a multi-stage continuous packaging line.

The unit applies to individuals who are responsible for the continuous operation of a multi-stage continuous packaging line in the packaging industry.

All work must be carried out to comply with workplace procedures, according to state/territory health and safety, and food safety regulations, legislation and standards that apply to the workplace.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

### Pre-requisite Unit

Nil

### Unit Sector

Bottling and Packaging (BPG)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare to set multi-stage continuous packaging line	1.1 Interpret work instructions and identify potential health and safety in the workplace hazards and controls 1.2 Select, fit and use appropriate personal protective equipment 1.3 Ensure that components are available and meet requirements

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	1.4 Select and use appropriate hand tools 1.5 Ensure equipment is safe to set according to operating instructions
2. Assemble, set and adjust multi-stage continuous packaging line	2.1 Assemble equipment in correct sequence according to operating instructions 2.2 Replace equipment components and set to meet production specifications 2.3 Change services as required 2.4 Test packaging line to meet specifications and operational requirements 2.5 Adjust packaging line settings to meet specifications and according to operating instructions 2.6 Liaise with operators in other work areas to ensure ongoing packaging process runs efficiently and effectively
3. Complete packaging line changeover	3.1 Monitor and clear waste generated by the process according to workplace procedures 3.2 Store unused components according to workplace procedures 3.3 Conduct work to meet workplace environmental guidelines 3.4 Instruct operators according to workplace procedure 3.5 Record workplace information according to workplace requirements

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Oral communication	<ul style="list-style-type: none"> <li>Clearly explain packaging equipment instructions to operators using language, tone and pace appropriate to the operators</li> </ul>
Interact with others	<ul style="list-style-type: none"> <li>Recognise common cultural and other differences of people in the work context and makes adjustments when communicating instructions</li> </ul>



## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPBP3007 Perform packaging equipment changeover	FDFBP2008A Perform packaging equipment changeover	Updated to meet Standards for Training Packages  Minor changes to Performance Criteria to clarify intent  Recoded to reflect complexity of competency	Equivalent unit

## Links

Companion Volume Implementation Guides are found in VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# Assessment Requirements for FBPBPG3007 Perform packaging equipment changeover

## Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

## Performance Evidence

An individual demonstrating competency must satisfy all of the elements and performance criteria in this unit.

There must be evidence that the individual has safely and effectively prepared, set up and tested a multi-stage continuous packaging line on a minimum of one occasion, including:

- changing equipment or process components in response to product change and specification, including:
  - label size, positioning, shape and type
  - bottle size and shape
  - carton size, type and format
  - capsule size and type
  - product type and style
  - closure type or size
  - type of inert gas used to flush bags or bottles of cover product
  - bottle rinsing method (water, alcohol or gas)
  - flushing lines
  - checking pressures, flow rates or quantities used per item
  - operating control program
- testing the process and equipment operation to ensure correct:
  - label height, orientation and adhesion
  - conveyor noise and product spacing
  - carton erection, orientation and seal
  - production capacity (such as bottles per hour)
  - fill pressure
- monitoring and adjusting process equipment to achieve required quality outcomes, adjusting:
  - stars, scrolls and bows
  - mandrels

- filling head heights
- label applicators
- sighting guides
- operational speeds
- taking corrective action in response to typical faults and inconsistencies
- liaising with other work areas involved the packaging process
- completing workplace records as required
- applying safe work practices and identifying health and safety in the workplace hazards and controls.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- quick changeover equipment principles, purpose and operation, including an understanding of process control systems
- equipment purpose and operation, including an understanding of process control systems, where used
- process specification, procedures and operating parameters across the system
- equipment components purpose and operation
- component changes and adjustments required
- test run procedures
- control points and monitoring methods
- services required
- isolation procedures
- material specification and preparation requirements
- health and safety in the workplace hazards and controls
- environmental issues and control
- routine maintenance procedures where relevant
- operating procedures for relevant work task.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - skills must be demonstrated in a workplace setting or an environment that accurately represents a real workplace
- resources, equipment and materials:
  - a bottling context
  - products, materials and consumables
  - personal protective clothing and equipment
  - equipment and services

- specifications:
  - instructions, information, specifications and schedules
  - documentation and recording requirements and procedures.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volume Implementation Guides are found in VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## FBPCDS2001 Conduct a standard product tasting

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

### Application

This unit of competency describes the skills and knowledge required to plan, prepare and conduct standard product samples and tastings for wine and/or spirits.

The unit applies to individuals who work in cellar door operations and conduct routine, 'on request' tastings from individual customers and small groups.

When applied in the workplace, compliance with state and territory legislative requirements relating to the Responsible Service of Alcohol will be required.

All work must be carried out to comply with workplace procedures, according to state/territory health and safety, and food safety regulations, legislation and standards that apply to the workplace.

### Pre-requisite Unit

Nil

### Unit Sector

Cellar Door (CDS)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Store and handle products	1.1 Cellar tasting products and rotate stock according to product style and workplace procedures 1.2 Manage sediments and characters associated with ageing according to individual product requirements and workplace

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	<p>procedures</p> <p>1.3 Access information to ensure product usage dates are current</p>
2. Set up product tasting area	<p>2.1 Prepare products for tasting using appropriate techniques for product style or characteristics</p> <p>2.2 Prepare tasting equipment suitable to product and tasting requirements and set up ready for use by customers</p> <p>2.3 Prepare adequate supplies of suitable support materials and place ready for use</p> <p>2.4 Confirm tasting preparation meets with health and safety in the workplace procedures</p>
3. Conduct product tastings	<p>3.1 Establish customer preferences using effective communication techniques and support materials</p> <p>3.2 Encourage customers to sample preferred product range in the most beneficial order to experience product characteristics effectively</p> <p>3.3 Give customers time and privacy to sample each product and make a decision</p> <p>3.4 Encourage customers to ask questions and pass opinions on products</p> <p>3.5 Answer customer queries accurately and comprehensively, or refer to another information resource</p> <p>3.6 Adjust tasting order and product range to suit customer requirements</p>
4. Serve tasting samples	<p>4.1 Open product using techniques and procedures suitable to product characteristics</p> <p>4.2 Identify product faults and rectify and report according to workplace procedures</p> <p>4.3 Pour product and present to the customer for tasting in compliance with legal regulations</p> <p>4.4 Collect and dispose of waste according to workplace environmental guidelines</p> <p>4.5 Maintain optimum condition of open product and store sealed product according to workplace procedures</p>

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"> <li>Comprehend information from a variety of workplace documents</li> </ul>
Oral Communication	<ul style="list-style-type: none"> <li>Convey technical and specialised information using language appropriate to customer</li> <li>Use questioning skills to gather information about customer preferences</li> <li>Use active listening skills to respond to questions or feedback from customers</li> </ul>
Numeracy	<ul style="list-style-type: none"> <li>Calculate numerical information relating to measurements, quantities, volumes and monetary value</li> </ul>
Navigate the world of work	<ul style="list-style-type: none"> <li>Understand and apply legislative responsibilities and workplace procedures relevant to own role</li> </ul>
Interact with others	<ul style="list-style-type: none"> <li>Use accepted practices and protocols for communicating with people external to the organisation</li> </ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPCDS2001 Conduct a standard product tasting	FDFCD2006A Conduct a standard product tasting	Updated to meet Standards for Training Packages  Minor changes to Elements and Performance Criteria for clarity  Prerequisites removed	Equivalent unit

## Links

Companion Volume Implementation Guides are found in VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>





## Assessment Requirements for FBPCDS2001 Conduct a standard product tasting

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

### Performance Evidence

An individual demonstrating competency must satisfy all of the elements and performance criteria in this unit.

There must be evidence that the individual has demonstrated the following for an individual customer at least once, and for a group at least once:

- accessing workplace information to identify standard product tasting and preparation requirements
- cellaring and rotating tasting stock to maintain product quality and suitability for tastings
- preparing tasting area, equipment and supplies in a manner suitable for the range of products being tasted and the number of customers in the tasting
- ensuring products are correctly opened, checked and served to customers
- communicating effectively with customers, including finding preferences, answering questions, and adjusting tasting order or range to facilitate customer enjoyment.

### Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- purpose and principles of standard product tasting
- available information resources:
  - product and price lists
  - background documentation
  - other personnel with special expertise
- overview of product range and quality characteristics
- common product faults, features, causes and corrective action necessary
- product sensory evaluation techniques (standard)
- optimum cellaring conditions for a range of products, such as wines of varying maturity, fortified and liqueur wines, and spirits

- preparation requirements and procedures for glasses, spittoons, chilling equipment and support materials
- operating procedures for equipment and services used in product tasting
- product handling procedures and techniques:
  - opening
  - decanting
  - pouring
  - displaying the label
- procedures to maintain product quality between tastings
- product knowledge:
  - product style and taste characteristics
  - optimum serving requirements
  - preparation requirements
  - stock availability
  - label interpretation
- workplace policies and procedures and responsibilities related to product tastings:
  - customer service
  - customer complaints
  - responsible service of alcohol
  - safe food handling
  - product storage
  - product tastings
  - personal presentation
  - stock rotation
  - reporting problems
  - housekeeping
- health and safety in the workplace hazards and controls associated with product tastings.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - a workplace or an environment that accurately represents workplace conditions
- resources, equipment and materials:
  - range of workplace products for tasting
  - materials and equipment needed to conduct tastings
  - product information or technology for accessing information
- specifications:
  - workplace procedures relating to product tastings
- relationships (internal and/or external):

- external customers for tasting opportunities.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## FBPCDS2002 Provide and present wine tourism information

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

### Application

This unit of competency describes the skills and knowledge required to provide and present relevant and accurate tourist information to winery visitors on wine products, wine growing, local history, and workplace facilities.

The unit applies to individuals who work in cellar door operations of wineries or distilleries. Individuals generally work under supervision but have some autonomy and accountability for their own work.

All work must be carried out to comply with workplace procedures, according to state/territory health and safety, and food safety regulations, legislation and standards that apply to the workplace.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

### Pre-requisite Unit

Nil

### Unit Sector

Cellar Door (CDS)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Provide general overview of the Australian wine industry	1.1 Provide a brief history of Australian viticulture and wine production to visitors on request 1.2 Identify the main wine grape growing regions of Australia and

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	<p>explain distinguishing features in response to visitor enquiries</p> <p>1.3 Describe the position of Australian wines in relation to world markets</p> <p>1.4 Explain the risk from visitors bringing phylloxera into quarantine areas and describe procedures for controlling and minimising this risk</p> <p>1.5 Identify and comply with workplace requirements for visitor access, health and safety in the workplace and the provision of information</p>
2. Provide general regional information	<p>2.1 Identify and describe grape varieties commonly grown in the region</p> <p>2.2 Explain the location of tourist information centre and other local tourist attractions to visitors and provide information about special events</p> <p>2.3 Provide a brief outline of local history to visitors</p> <p>2.4 Maintain current details about local facilities and provide to visitors on request</p> <p>2.5 Provide contact names and locations of local wineries to visitors on request</p> <p>2.6 Access and provide current local tourist information brochures and online information</p>
3. Provide general information about the organisation and its products	<p>3.1 Provide a brief history of the organisation to visitors</p> <p>3.2 Explain the role of the cellar door operations within the workplace</p> <p>3.3 Identify the countries to which workplace products are exported and provide information about exported products to visitors</p> <p>3.4 Explain the Australian wine awards system to visitors and application to the workplace product range</p> <p>3.5 Explain key wine industry bodies, events and their functions to visitors</p>

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"> <li>Gather and interpret tourism information from various sources</li> </ul>
Oral Communication	<ul style="list-style-type: none"> <li>Use clear language to convey industry-specific information appropriate to visitor</li> <li>Use active listening skills to respond to questions from visitors and to provide information that meets visitor needs</li> </ul>
Navigate the world of work	<ul style="list-style-type: none"> <li>Understand biosecurity and health and safety in the workplace requirements relevant to own role</li> </ul>
Interact with others	<ul style="list-style-type: none"> <li>Use accepted practices and protocols for communicating with people external to the organisation</li> </ul>
Get the work done	<ul style="list-style-type: none"> <li>Use the main features and functions of digital tools to identify and convey tourism information</li> </ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPCDS2002 Provide and present wine tourism information	FDFCD2002A Promote wine tourism information	<p>Updated to meet Standards for Training Packages</p> <p>Changed unit title and minor changes to Elements and Performance Criteria for clarity</p> <p>Prerequisites removed</p>	Equivalent unit

## Links

Companion Volume Implementation Guides are found in VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## Assessment Requirements for FBPCDS2002 Provide and present wine tourism information

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

### Performance Evidence

An individual demonstrating competency must satisfy all of the elements and performance criteria in this unit.

There must be evidence that the individual has provided wine tourism information for at least two separate visitor enquiries and has demonstrated the following:

- accessed information about the history and product range of the organisation, regional and Australian wines
- accessed workplace information to identify wine industry tourism promotion requirements
- provided tourism information appropriate to the needs of visitors to the cellar door
- explained phylloxera threats and prevention measures to visitors
- maintained cellar door information resources and display areas
- used digital tools to access and present wine industry information
- presented clear and accurate wine tourism information covering:
  - wine varieties and production in the local region
  - main wine grape growing regions in Australia
  - links to history, tourism information and other wineries
  - workplace wine products and exports
  - wine industry bodies and awards.

### Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- brief history of Australian wine production:
  - first planting of vines in Australia, including where and when
  - key successes and challenges in wine industry development
  - structure of the industry
  - trends in styles produced

- location and key distinguishing features of Australia's main wine grape growing regions:
  - climate and soil
  - grape varieties and wine styles
  - specific viticultural and vinification techniques
  - key brands
- key features of local wine grape growing region:
  - climate
  - soil
  - grape varieties
  - wine styles
  - specific viticultural and vinification techniques
  - key brands
- position of Australian wine in the world market:
  - quantity and value of Australian exports
  - major importers of Australian wine
  - key brands exported
  - label interpretation and Australian wine label integrity program
- the threat of phylloxera to the Australian wine industry:
  - quarantine areas
  - effect of phylloxera on vine and wine
  - steps winery and vineyard visitors can take to minimise risk of transferring infection
- regional and local information:
  - overview of history
  - local events
  - local attractions, facilities and essential services
- key Australian wine industry bodies and their purpose
- organisation information:
  - history
  - parent company or owners
  - size and production capacity
  - key brands
  - product and service range
- workplace policy and procedures with regard to:
  - visitor service and interaction
  - providing information and advice
  - health and safety in the workplace hazards and controls
  - procedures and responsibility for reporting problems
- effective presentation skills and techniques.



## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - a workplace or an environment that accurately represents workplace conditions
- resources, equipment and materials:
  - promotional information, materials, displays and/or equipment
  - technology for accessing and presenting information
  - aids and resources for effective presentations
- specifications:
  - work instructions and workplace procedures relating to promoting wine tourism information and dealing with visitors
- relationships (internal and/or external):
  - cellar door visitors for promotion activities.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## FBPCDS2003 Sell cellar door products and services

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

### Application

This unit of competency describes the skills and knowledge required to sell wine and other products and services. It involves developing product knowledge, engaging with customers and using sales techniques to maximise sale opportunities.

The unit applies to individuals who work under general supervision to provide specialised industry knowledge to sell products and services to cellar door visitors.

All work must be carried out to comply with workplace procedures, according to state/territory health and safety, and food safety regulations, legislation and standards that apply to the workplace.

When applied in the workplace, compliance with state and territory legislative requirements relating to the Responsible Service of Alcohol will be required.

### Pre-requisite Unit

Nil

### Unit Sector

Cellar Door (CDS)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Develop product and service knowledge	1.1 Develop and retain knowledge of the use, purpose and application of cellar door products and services by accessing relevant sources of information 1.2 Research and apply comparisons between available products and

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	<p>services, including brand options, features and price</p> <p>1.3 Develop knowledge of competitors' product and service ranges and pricing structure</p> <p>1.4 Consult experienced sales staff or research product information to increase workplace product and service knowledge</p> <p>1.5 Identify workplace safety and consumer regulatory requirements relevant to the sale of cellar door products and services</p>
2. Approach customer	<p>2.1 Determine timing of customer approach according to cellar door sales procedure and customer behaviour</p> <p>2.2 Identify and apply effective sales approach using knowledge of customer buying behaviour</p> <p>2.3 Convey a positive impression to encourage customer interest</p>
3. Gather customer information	<p>3.1 Apply questioning techniques to determine customer motives for purchase</p> <p>3.2 Use listening skills to determine customer requirements</p> <p>3.3 Interpret and respond to non-verbal communication cues</p> <p>3.4 Guide customers to product ranges that match customer buying motives and requirements</p> <p>3.5 Address customers according to workplace protocol and by name if known</p>
4. Sell benefits to customer	<p>4.1 Match customer needs to appropriate products and services</p> <p>4.2 Communicate knowledge of product or service features and benefits clearly to customers</p> <p>4.3 Describe specific requirements relating to products or services to customers</p> <p>4.4 Answer routine customer questions about products accurately and honestly</p> <p>4.5 Refer customers to more experienced, senior sales staff or to appropriate product specialists according to workplace procedures</p>
5. Overcome customer objections	<p>5.1 Identify and acknowledge customer objections to purchasing</p> <p>5.2 Categorise objections into price, time and product or service characteristics</p> <p>5.3 Offer solutions or alternatives to customer objections</p>

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	5.4 Apply problem solving to overcome customer objections and consult with senior staff as required
6. Close sale	6.1 Identify and monitor customer buying signals and respond appropriately 6.2 Encourage customers to make purchase decisions in compliance with regulatory requirements 6.3 Select and apply method to close sale according to cellar door sales procedures
7. Maximise sales opportunities	7.1 Recognise and apply opportunities to 'up sell' or make additional sales 7.2 Advise customers of complementary products or services according to identified customer needs 7.3 Review personal sales outcomes and implement strategies to maximise future sales

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"> <li>Interpret product information from a variety of sources including labelling and advertising information</li> </ul>
Writing	<ul style="list-style-type: none"> <li>Record workplace information using industry-based vocabulary and required format</li> </ul>
Oral Communication	<ul style="list-style-type: none"> <li>Convey information using language appropriate to customer</li> <li>Use questioning skills to gather information from customer</li> </ul>
Numeracy	<ul style="list-style-type: none"> <li>Calculate numerical information relating to measurements, quantities, volume and costs</li> </ul>
Navigate the world of work	<ul style="list-style-type: none"> <li>Understand and apply legislative responsibilities relevant to own role</li> <li>Evaluate own work performance to identify opportunities to improve sales techniques</li> </ul>

Skill	Description
Interact with others	<ul style="list-style-type: none"><li>Use accepted practices and protocols for communicating with people external to the organisation</li></ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPCDS2003 Sell cellar door products and services	FDFCD2005A Sell cellar door products and services	Updated to meet Standards for Training Packages  Minor changes to Elements and Performance Criteria for clarity  Prerequisites removed	Equivalent unit

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## Assessment Requirements for FBPCDS2003 Sell cellar door products and services

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

### Performance Evidence

An individual demonstrating competency must satisfy all of the elements and performance criteria in this unit.

There must be evidence that the individual has sold cellar door products and services and has demonstrated the following when selling at least two separate product types:

- developed and maintained workplace product and service knowledge, including knowledge of competitor products and services for comparison
- sought information from product or service resources and assistance from colleagues and/or product specialists
- determined customer needs and buying motives using effective communication:
  - questioning techniques
  - active listening skills
  - observing customer behaviour
- matched customer requirements to appropriate product or service
- conveyed product and service knowledge to customers
- provided solutions or alternatives to customer objections about potential purchases
- applied appropriate and effective sales approaches according to workplace procedures, customer behaviour or buying signals
- closed sales and maximised sales opportunities.

### Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- features of a range of products and services available from the sales outlet or workplace
- features of workplace customer service
- information sources for product information including:
  - product lists
  - expertise of colleagues

- promotional materials
- features and characteristics of customer types and motivations for purchasing cellar door products and services
- sales techniques including:
  - use of effective communication
  - methods of sales approaches
  - understanding customer needs
  - promoting features and benefits of products and services
  - how to identify and overcome objections
  - how to close sales
  - methods to maximise sales and add-on products and services
- health and safety in the workplace and consumer regulatory requirements as they apply in the workplace in relation to serving or selling.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - a workplace or an environment that accurately represents workplace condition
- resources, equipment and materials:
  - range of workplace products and relevant equipment
  - product and service information or technology for accessing information
- specifications:
  - workplace procedures relating to selling cellar door products and services
- relationships (internal and/or external):
  - external customers for sales opportunities and internal personnel for assistance.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volume Implementation Guides are found in VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## FBPCDS2004 Perform cellar door stock control procedure

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

### Application

This unit of competency describes the skills and knowledge required to receive, unpack and dispatch wine and cellar door goods and to participate in stocktaking.

The unit applies to individuals who work in cellar door operations in the wine industry. Individuals generally work under supervision but have some autonomy and accountability for their own work.

All work must be carried out to comply with workplace procedures, according to state/territory health and safety, and food safety regulations, legislation and standards that apply to the workplace.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

### Pre-requisite Unit

Nil

### Unit Sector

Cellar Door (CDS)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Receive and process incoming goods	1.1 Confirm job requirements and identify potential workplace hazards and controls according to workplace procedures 1.2 Maintain cleanliness and neatness in receiving bay according to



Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	<p>workplace procedures</p> <p>1.3 Select, fit and use personal protective equipment and manual handling equipment relevant to the job requirements</p> <p>1.4 Check incoming stock and validate against purchase orders and delivery documentation</p> <p>1.5 Unpack incoming goods safely and dispose of waste in accordance with workplace procedures</p> <p>1.6 Inspect items received for damage, quality, use-by dates, breakage or discrepancies and record issues</p> <p>1.7 Record stock levels on workplace stock systems</p> <p>1.8 Arrange secure transfer, storage, pricing and labelling of stock according to workplace procedures</p>
2. Rotate stock	<p>2.1 Carry out routine rotation of merchandise and wrapping and packing materials according to workplace procedures</p> <p>2.2 Store or dispose of excess stock according to workplace procedures</p>
3. Undertake minor stocktakes	<p>3.1 Undertake routine cyclical stock counts according to workplace procedures</p> <p>3.2 Update stock records documentation according to stock control system</p> <p>3.3 Report stock discrepancies according to workplace procedures</p>
4. Reorder stock	<p>4.1 Identify minimum stock levels according to workplace procedures</p> <p>4.2 Place required orders using stock requisition forms or electronic system</p> <p>4.3 Identify undelivered stock from orders in stock system and follow up according to workplace procedures</p>
5. Process stock returns	<p>5.1 Identify stock to be returned to supplier or warehouse and label with date, supplier and reason for return</p> <p>5.2 Complete credit request documentation according to workplace or supplier requirements</p> <p>5.3 Store stock securely while awaiting dispatch</p> <p>5.4 Complete delivery documentation noting special delivery instructions</p>

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	5.5 Pack items safely and securely to avoid damage in transit

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"> <li>Comprehend and interpret information from a variety of workplace documents</li> </ul>
Writing	<ul style="list-style-type: none"> <li>Record workplace information in required format</li> </ul>
Numeracy	<ul style="list-style-type: none"> <li>Calculate numerical information relating to measurements, quantities and volume</li> </ul>
Navigate the world of work	<ul style="list-style-type: none"> <li>Comprehend requirements of workplace procedures and legislative requirements, in particular health and safety in the workplace, and apply to job role</li> </ul>
Get the work done	<ul style="list-style-type: none"> <li>Plan, organise and complete tasks according to set routines and procedures</li> </ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPCDS2004 Perform cellar door stock control procedure	FDFCD2004A Perform cellar door stock control procedure	Updated to meet Standards for Training Packages  Minor changes to Elements and Performance Criteria for clarity  Prerequisites removed	Equivalent unit

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## Assessment Requirements for FBPCDS2004 Perform cellar door stock control procedure

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

### Performance Evidence

An individual demonstrating competency must satisfy all of the elements and performance criteria in this unit.

There must be evidence that the individual has performed the following cellar door stock control tasks at least once:

- accessed workplace information to identify stock control requirements
- consistently applied safe work practices in the handling of stock, including selected, fitted and used personal protective equipment
- received, unpacked, checked, processed, labelled and stored an incoming stock order according to workplace procedures
- carried out routine rotation procedures for merchandise and associated cellar door stock according to workplace requirements
- participated in a routine stocktake according to workplace procedures
- monitored stock levels and reordered stock
- processed a stock return to a supplier
- dispatched outgoing goods
- processed information using workplace stock control system
- maintained work area according to workplace cleanliness and neatness standards.

### Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- purpose and principles of stock control, including features of workplace systems used for stock control
- details of key suppliers of merchandise and other stock
- common health and safety in the workplace hazards relevant to stock control and methods for controlling the associated risks
- operational aspects of workplace procedures in regard to:

- stock control
- stock rotation practices
- maintaining stock levels
- ordering stock
- unpacking of goods
- disposal of packaging materials
- dealing with out-of-date, missing or damaged stock
- stock pricing and labelling
- correct handling and storage of stock
- processes for stocktaking and cyclical counts
- procedures for:
  - handling stock safely
  - inspecting items and recording quality or other issues
  - maintaining workplace cleanliness and neatness
  - record keeping.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - a workplace or an environment that accurately represents workplace conditions
- resources, equipment and materials:
  - personal protective equipment
  - stock
  - stock control system for recording information
- specifications:
  - workplace procedures relating to stock control.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## FBPCDS3001 Conduct winery and site tours

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

### Application

This unit of competency describes the skills and knowledge required to prepare, conduct and evaluate winery and site tours and presentations for a variety of domestic and overseas visitors.

The unit applies to individuals who work in cellar door operations of wineries or distilleries of different sizes, locations and product ranges. Individuals have specialised knowledge and work under broad direction with responsibility for their own work.

All work must be carried out to comply with workplace procedures, according to state/territory health and safety, and food safety regulations, legislation and standards that apply to the workplace.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

### Pre-requisite Unit

Nil

### Unit Sector

Cellar Door (CDS)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare for winery and site tour	1.1 Establish size and composition of tour group from relevant source 1.2 Identify specialist requirements for touring party based on size and

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	<p>composition of the group</p> <p>1.3 Carry out background research to ensure the tour presentation includes up-to-date and appropriate information</p> <p>1.4 Plan for tour including route and timing</p> <p>1.5 Prepare required materials to meet customer and workplace objectives</p>
2. Conduct winery and site tour	<p>2.1 Welcome and brief tour group according to workplace procedures</p> <p>2.2 Inform tour group members of health and safety in the workplace requirements and pest control precautions both before and during the tour, and monitor to ensure compliance</p> <p>2.3 Present information to tour group members that contains specialised and technical information appropriate to the group's requirements</p> <p>2.4 Provide special facilities, services and hospitality arrangements according to workplace procedures and tour group requirements</p> <p>2.5 Present information in locations' that maximise tour group members' ability to hear and/or see the presentation</p> <p>2.6 Invite tour group members to ask questions and seek further explanation about information presented throughout the tour</p> <p>2.7 Maintain the safety, welfare and comfort of tour members at all times</p>
3. Evaluate and assess performance	<p>3.1 Ask tour group members and any accompanying staff to review their experience according to workplace procedures</p> <p>3.2 Carry out a self-assessment of own performance in conducting the winery and site tour</p> <p>3.3 Identify positive and negative aspects of the way the tour was conducted and consider for future tour planning and organisation</p> <p>3.4 Review feedback from tour group members and take steps to incorporate where possible</p>

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"> <li>Gather and interpret information from various sources to establish tour requirements</li> </ul>
Writing	<ul style="list-style-type: none"> <li>Record workplace information using industry-based vocabulary and required format</li> <li>Prepare documents for distribution to tour members in required workplace format</li> </ul>
Oral Communication	<ul style="list-style-type: none"> <li>Use clear language to convey technical and specialised information appropriate to tour group</li> <li>Use questioning skills to gather feedback from participants</li> <li>Use active listening skills to respond to questions or feedback from participants</li> </ul>
Navigate the world of work	<ul style="list-style-type: none"> <li>Evaluate own work performance to identify opportunities to improve own skills or knowledge</li> </ul>
Interact with others	<ul style="list-style-type: none"> <li>Use accepted practices and protocols for communicating with people external to the organisation</li> </ul>
Get the work done	<ul style="list-style-type: none"> <li>Plan, sequence and implement tasks required to achieve required outcomes</li> <li>Take responsibility for decisions made about tour organisation and delivery</li> <li>Use the main features and functions of digital tools during the planning and delivery of winery and site tours</li> <li>Evaluate event outcomes to identify opportunities to improve future tours</li> </ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPCDS3001 Conduct winery and site tours	FDFCD2001A Conduct winery and or site tours	Updated to meet Standards for Training Packages  Prerequisites removed  Unit code updated to AQF3 to reflect	Equivalent unit



		complexity of competency Minor changes to Performance Criteria for clarity	
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## Links

Companion Volume Implementation Guides are found in VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# Assessment Requirements for FBPCDS3001 Conduct winery and site tours

## Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

## Performance Evidence

An individual demonstrating competency must satisfy all of the elements and performance criteria in this unit

There must be evidence that the individual has planned and conducted winery and site tours on at least two separate occasions with two different groups and has demonstrated the following:

- identified characteristics and requirements of tour group
- planned tour in advance, including:
  - conducting background research
  - liaising with staff in areas to be visited
  - preparing presentation materials and equipment
  - ensuring availability of required protective equipment for tour members
- conducted welcome and pre-tour briefing, including information about health and safety in the workplace and pest control requirements, and other relevant site specific information
- conducted tour according to planned route and timing
- presented information in a clear and logical format
- engaged with tour group members when presenting information by encouraging questions and discussion
- monitored tour group members during tour to ensure health and safety in the workplace and security compliance
- sought feedback from tour members about their experience at the end of the tour and evaluated own performance
- evaluated and considered feedback for future tour planning, organisation and delivery.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- purpose and objectives of conducting winery and site tours
- workplace policies and procedures and responsibilities relating to site visitors, including:
  - health and safety in the workplace requirements
  - emergency and evacuation procedures
  - first aid situations
  - pest and disease biosecurity procedures – phylloxera
  - food safety procedures
  - contact details for emergencies and first aid
  - customer service and welfare
  - public relations and information transfer
  - personal presentation
  - customer complaints and reporting procedures
- key principles and components of a site tour plan
- key principles and techniques for group facilitation
- key background information about the workplace, including:
  - brand and workplace objectives
  - site features, equipment, processes and layout
  - product range and services provided.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - a workplace or an environment that accurately represents workplace conditions
- resources, equipment and materials:
  - personal protective equipment
  - equipment and materials needed for presentation or tour
  - documentation or technology for recording customer feedback
- specifications:
  - information about tour group and tour instructions
  - workplace procedures relating to winery and site tours
- relationships (internal and/or external):
  - customers for winery or site tour.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## FBPCDS3002 Plan and deliver a wine tasting event

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

### Application

This unit of competency describes the skills and knowledge required to plan and deliver a wine tasting event. It includes researching the needs of clients, sourcing products to be tasted, preparing product and tasting equipment, event planning, conducting the tasting event and providing advice and information on the products to be tasted.

The unit applies to individuals who work in cellar door operations. Individuals have specialised knowledge and work under broad direction with responsibility for their own work.

All work must be carried out to comply with workplace procedures, according to state/territory health and safety in the workplace, and food safety regulations, legislation and standards that apply to the workplace.

When applied in the workplace, compliance with state and territory legislative requirements relating to the Responsible Service of Alcohol will be required.

### Pre-requisite Unit

Nil

### Unit Sector

Cellar Door (CDS)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Plan for a wine tasting event	1.1 Identify potential health and safety in the workplace hazards and implement control measures 1.2 Source and interpret workplace information regarding procedures

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	<p>and regulations for conducting a wine tasting event</p> <p>1.3 Identify characteristics and potential requirements of event participants to ensure event planning is relevant to group</p> <p>1.4 Establish and confirm availability of required facilities</p> <p>1.5 Record registrations of participants according to workplace procedures</p> <p>1.6 Undertake pre-event organisation of resources and facilities</p> <p>1.7 Liaise with security, technology and finance support services to ensure availability of systems</p>
2. Prepare for product tastings	<p>2.1 Establish products to be tasted according to specialised product tasting requirements of customers</p> <p>2.2 Carry out appropriate background research for products planned for wine tasting event</p> <p>2.3 Prepare work area including promotional and support materials for specialised product tasting</p>
3. Conduct wine tasting event	<p>3.1 Conduct event according to event plan, objectives and workplace procedures</p> <p>3.2 Conduct product tasting according to workplace protocols and industry practices</p>
4. Evaluate and assess performance	<p>4.1 Encourage and review participant feedback about their expectations and level satisfaction associated with attending the event</p> <p>4.2 Carry out self-assessment of performance in meeting customer expectations and personal and workplace objectives</p> <p>4.3 Assess feedback to determine positive and negative aspects of the event conducted and consider for future events</p> <p>4.4 Resolve concerns of participants and report problems according to workplace procedures</p>

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"> <li>Gather and interpret product information from a variety of sources including labelling and advertising information</li> </ul>
Writing	<ul style="list-style-type: none"> <li>Record workplace information using industry-based vocabulary and required format</li> </ul>
Oral Communication	<ul style="list-style-type: none"> <li>Provide information using language appropriate to event participants</li> <li>Use questioning skills to gather feedback from participants</li> <li>Use active listening skills to respond to questions or feedback from participants</li> </ul>
Numeracy	<ul style="list-style-type: none"> <li>Calculate numerical information relating to measurements, quantities, volumes and monetary value</li> </ul>
Navigate the world of work	<ul style="list-style-type: none"> <li>Evaluate own work performance to identify opportunities to improve own skills or knowledge</li> </ul>
Interact with others	<ul style="list-style-type: none"> <li>Use accepted practices and protocols for communicating with internal personnel and people external to the organisation</li> </ul>
Get the work done	<ul style="list-style-type: none"> <li>Plan, sequence and implement tasks required to achieve outcomes</li> <li>Take responsibility for decisions made about event organisation and delivery</li> <li>Use the main features and functions of digital tools during the planning and delivery of a wine tasting event</li> <li>Evaluate event outcomes to identify opportunities to improve future events</li> </ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPCDS3002 Plan and deliver a wine tasting event	FDFCD3002A Conduct a specialised product tasting	Updated to meet Standards for Training Packages  Redesigned unit using content from the previous unit	No equivalent unit

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>



## Assessment Requirements for FBPCDS3002 Plan and deliver a wine tasting event

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

### Performance Evidence

An individual demonstrating competency must satisfy all of the elements and performance criteria in this unit.

There must be evidence that the individual has planned and delivered at least one wine tasting event and has demonstrated the following:

- prepared a plan for a wine tasting event
- identified and followed health and safety in the workplace procedures
- organised services and facilities to support a wine tasting event including:
  - records systems
  - technology
  - wine tasting equipment and materials
  - product availability
  - location and facilities
- identified and researched specific participant requirements and details on style, vintage, region and other background information about products to be tasted
- identified and prepared tasting resources and facilities including:
  - products at correct temperatures
  - glasses and supplies
  - suitable tasting environment
- conducted a specialised product tasting according to workplace procedures and industry practices including:
  - articulating an accurate sensory evaluation of product tasted
  - serving products in appropriate condition for specific tasting
  - identifying and removing faulty products prior to tasting
  - maintaining optimum tasting environment
  - providing customer service
- provided accurate and relevant information in line with participant requirements

- evaluated and assessed performance against participant, personal and workplace objectives.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- different types of wine tasting events within industry practice
- health and safety in the workplace procedures and regulations for conducting wine tasting events
- basic event planning and delivery methods
- common industry systems for registration, finance and technology used in wine events
- purpose and principles of specialised product tasting, including:
  - link to related work areas and activities
  - quality characteristics of products and materials
  - promotional and brand objectives of the workplace and tasting events
- overview of international, national, regional and organisation-specific information about wine products
- workplace procedures relating to:
  - responsible service of alcohol
  - specialised and standard product tastings
  - customer service
  - customer complaints
  - information provision and presentation
  - activity performance review and evaluation
- product sensory evaluation techniques and procedures
- key presentation principles and techniques for engaging and informing customers about wine tasting
- workplace procedures and responsibility for reporting problems.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - a workplace setting or an environment that accurately represents workplace conditions
- resources, equipment and materials:
  - facilities and services for wine tasting event planning
  - range of workplace products for tasting
  - materials and equipment needed to conduct tastings
- specifications:
  - workplace procedures relating to specialised product tastings
  - product information or technology for accessing information

- relationships (internal and/or external):
  - external customers/participants with specialised requirements for tasting opportunities.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volume Implementation Guides are found in VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## FBPCDS3003 Coordinate winery hospitality activities

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

### Application

This unit of competency describes the skills and knowledge required to plan, conduct and evaluate winery hospitality activities. It includes limited responsibility for the work of others.

The unit applies to individuals who work under broad direction and take responsibility for coordinating hospitality activities conducted as part of cellar door operations in the wine industry.

All work must be carried out to comply with workplace procedures, according to state/territory health and safety, and food safety regulations, legislation and standards that apply to the workplace.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

### Pre-requisite Unit

Nil

### Unit Sector

Cellar Door (CDS)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Identify required hospitality activities	1.1 Interpret workplace or organisation promotional schedule and apply to hospitality activities 1.2 Respond to ad-hoc customer requests and bookings according to

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	workplace procedures 1.3 Confirm health and safety in the workplace, regulatory and workplace procedures relating to winery hospitality activities
2. Plan and organise hospitality activities	2.1 Identify resources required to implement hospitality activities 2.2 Negotiate prices and services with suppliers and customers 2.3 Confirm supply of necessary resources and services according to supplier agreements and workplace procedures
3. Prepare for winery hospitality activities	3.1 Prepare a schedule of events to ensure timely and effective implementation of activities 3.2 Prepare or produce support materials in line with promotional schedule and workplace requirements 3.3 Brief team and suppliers on their roles and responsibilities
4. Implement hospitality activities	4.1 Coordinate resources effectively and efficiently to meet customer and workplace objectives 4.2 Monitor and maintain hospitality facilities within limits of responsibility 4.3 Recognise, rectify and report problems and anomalies to appropriate personnel
5. Evaluate winery hospitality activities	5.1 Evaluate team performance based on workplace and customer objectives 5.2 Encourage and review customer feedback to improve performance 5.3 Assess suppliers and give feedback according to workplace procedures 5.4 Collate information to use for the financial and promotional viability assessment 5.5 Identify areas for improvement based on evidence collected and make recommendations to appropriate personnel

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"> <li>Interpret information from a variety of workplace documents</li> </ul>
Writing	<ul style="list-style-type: none"> <li>Produce workplace documentation in required format</li> </ul>
Oral Communication	<ul style="list-style-type: none"> <li>Provide information using language appropriate to audience</li> <li>Use questioning skills to gather feedback</li> <li>Use active listening skills to respond to questions or feedback from others</li> </ul>
Numeracy	<ul style="list-style-type: none"> <li>Perform calculations relating to measurements, quantities, volumes and monetary value</li> </ul>
Navigate the world of work	<ul style="list-style-type: none"> <li>Understand and comply with legislative and workplace requirements relevant to own role</li> </ul>
Interact with others	<ul style="list-style-type: none"> <li>Use accepted practices and protocols for communicating with internal personnel and people external to the organisation</li> </ul>
Get the work done	<ul style="list-style-type: none"> <li>Plan, sequence and implement tasks required to achieve outcomes</li> <li>Use analytical skills to address problems and make decisions related to hospitality activities requirements</li> </ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPCDS3003 Coordinate winery hospitality activities	FDFCD3003A Coordinate winery hospitality activities	Updated to meet Standards for Training Packages  Minor changes to Performance Criteria for clarity  Prerequisites removed	Equivalent unit

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## Assessment Requirements for FBPCDS3003 Coordinate winery hospitality activities

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

### Performance Evidence

An individual demonstrating competency must satisfy all of the elements and performance criteria in this unit.

There must be evidence that the individual has planned, conducted and evaluated winery hospitality activities and has demonstrated the following at least once:

- accessed workplace information and schedules to identify winery hospitality activity coordination requirements
- planned and coordinated resources and supply of services appropriate to each hospitality event
- applied a high level of personal presentation
- handled customer requests, bookings and ad-hoc requests
- prepared schedules, briefing notes and other support materials for staff, suppliers and customers
- coordinated services, products and activities for hospitality events
- monitored hospitality facilities and service provision
- briefed team members and suppliers on roles and responsibilities
- monitored and dealt with problems and special requests during hospitality activities
- gathered feedback and data to evaluate winery hospitality activities
- used results of evaluations to improve future activities
- followed health and safety in the workplace procedures when coordinating winery hospitality activities.

### Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- links to related work areas and resources such as cellar door, public relations and marketing
- workplace procedures and responsibility for:



- reporting problems
- recording requirements
- customer service and complaints
- workplace product and service range
- workplace and brand promotional objectives
- format and interpretation of promotional schedules
- roles and responsibilities of supporting functions
- legislative and regulatory requirements as they apply in the workplace, including:
  - serving and selling liquor
  - industry codes of practice
  - consumer law
  - health and safety in the workplace procedures for employees and customers.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - a workplace or a realistic environment that allows the individual to conduct the required winery hospitality activity
- resources, equipment and materials:
  - documentation or technology for coordinating events
  - documentation or technology for preparing, recording and communicating information relating to the event
- specifications:
  - workplace promotional schedule and information about hospitality event and/or customer requirements
  - workplace procedures relating to winery and hospitality events
- relationships (internal and/or external):
  - staff and suppliers to brief
  - customers.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## FBPCEL2001 Perform oak handling activities

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

### Application

This unit of competency describes the skills and knowledge required to use, treat, repair, store and stack oak barrels and casks. It may involve work in confined spaces.

The unit applies to individuals who work in winemaking operations and take responsibility for their own work. Individuals generally work under supervision but have some autonomy and accountability for their own work.

All work must be carried out to comply with workplace procedures, according to state/territory health and safety, and food safety regulations, legislation and standards that apply to the workplace.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication. Users are advised to check with the relevant state or territory health and safety workplace authority for advice on confined space entry.

### Pre-requisite Unit

Nil

### Unit Sector

Cellar Operations (CEL)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare for oak handling activities	1.1 Identify and confirm job requirements 1.2 Identify applicable handling activities, environmental guidelines

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	<p>and legislative requirements</p> <p>1.3 Identify potential workplace health and safety hazards, assess risks and implement control measures</p> <p>1.4 Select and fit personal protective equipment relevant to the job requirements</p> <p>1.5 Check equipment and materials to ensure availability and readiness for use according to workplace procedures</p>
2. Use oak materials for production requirements	<p>2.1 Locate and identify oak product required to meet job requirement</p> <p>2.2 Select and follow workplace procedures for filling, emptying and topping</p> <p>2.3 Use transfer operations to complete production requirements</p>
3. Treat, store and repair oak	<p>3.1 Identify treatment, storage and repair requirements for oak product</p> <p>3.2 Confirm that oak meets job requirements</p> <p>3.3 Treat, store and repair oak to meet workplace procedures</p> <p>3.4 Operate and monitor equipment to ensure job requirements are being maintained</p> <p>3.5 Identify and address non-conformance results according to workplace procedures</p>
4. Stack oak barrels and casks	<p>4.1 Identify and plan stacking requirements for oak barrels and casks</p> <p>4.2 Select stacking method and implement according to specification and safe work practices</p> <p>4.3 Confirm stacked oak barrels and casks meet specification</p> <p>4.4 Identify and address non-conformance stacking</p>
5. Complete oak handling activities	<p>5.1 Shut down equipment safely according to workplace procedures</p> <p>5.2 Collect, treat and dispose of or recycle waste according to workplace procedures and relevant legislation</p> <p>5.3 Record workplace information according to workplace procedures</p>

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"> <li>Comprehend instructions in workplace documents</li> </ul>
Writing	<ul style="list-style-type: none"> <li>Complete workplace documents in required format</li> </ul>
Numeracy	<ul style="list-style-type: none"> <li>Perform calculations relating to measurements, quantities and operational specifications</li> </ul>
Navigate the world of work	<ul style="list-style-type: none"> <li>Apply workplace procedures and legislative responsibilities to own role</li> </ul>
Interact with others	<ul style="list-style-type: none"> <li>Use required communication mode to report operational information to relevant personnel</li> </ul>
Get the work done	<ul style="list-style-type: none"> <li>Plan, sequence and implement tasks according to set routines and procedures</li> <li>Respond to routine problems using workplace instructions and procedures</li> </ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPCEL2001 Perform oak handling activities	FDFCEL2001A Perform oak handling activities	<p>Updated to meet Standards for Training Packages</p> <p>Minor changes to Elements and Performance Criteria for clarity</p> <p>Prerequisites removed</p>	Equivalent unit

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# Assessment Requirements for FBPCEL2001 Perform oak handling activities

## Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

## Performance Evidence

An individual demonstrating competency must satisfy all of the elements and performance criteria in this unit.

There must be evidence that the individual has demonstrated the following on at least one occasion:

- accessing workplace information to identify oak handling requirements
- identifying legislative and workplace requirements related to oak handling
- selecting and fitting personal protective equipment
- selecting, setting up and operating equipment
- carrying out oak handling and treatment according to workplace procedures
- monitoring oak handling activities and equipment to identify non-conformance results
- carrying out minor repairs
- stacking and securing oak vessels according to workplace procedures
- shutting down equipment in routine and emergency situations
- conducting work safely and following health and safety procedures including identifying hazards and controlling risks associated with working in confined spaces
- following workplace procedures for:
  - maintaining records
  - reporting and recording corrective action
  - sorting, collecting, treating, recycling or disposing of waste.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- purpose and principles of oak use in winemaking and spirit production
- links between oak handling and related processes in cellar operations

- effect of oak storage on end product
- types of oak used for storage
- common faults in oak barrels and casks and effect on end product
- possible sources of oak contamination and effect on end product
- minor repair methods and procedures
- main methods used in oak barrel and cask stacking
- common causes of variation and corrective action required
- types of shutdown and associated requirements for routine and emergency situations
- health and safety hazards and controls in the workplace including instructions for use of chemicals in oak treatment
- hazards and controls associated with confined space entry
- workplace procedures and responsibility for:
  - recording requirements
  - reporting problems
  - waste handling.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - a wine operations workplace or an environment that accurately represents workplace conditions
- resources, equipment and materials:
  - personal protective equipment for oak handling activities
  - materials and equipment for confined space entry (if required)
  - materials handling equipment
  - oak products for activities in performance evidence
  - system for recording and reporting information
- specifications:
  - workplace procedures for oak handling activities.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## FBPCEL2002 Perform fermentation operations

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

### Application

This unit of competency describes the skills and knowledge required to prepare and operate the wine fermentation process. It may involve work in confined spaces.

The unit applies to individuals who work in winemaking operations and take responsibility for their own work. Individuals generally work under supervision but have some autonomy and accountability for their own work.

All work must be carried out to comply with workplace procedures, according to state/territory health and safety, and food safety regulations, legislation and standards that apply to the workplace.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication. Users are advised to check with the relevant state or territory health and safety workplace authority for advice on confined space entry.

### Pre-requisite Unit

Nil

### Unit Sector

Cellar Operations (CEL)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare for fermentation operations	1.1 Identify and confirm fermentation requirements 1.2 Confirm availability of required materials and services to meet



Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	fermentation operations requirements 1.3 Confirm environmental guidelines and identify potential health and safety hazards and controls according to workplace procedures 1.4 Select and fit personal protective equipment required for fermentation operations 1.5 Prepare materials to meet production requirements 1.6 Check equipment to confirm readiness for use according to workplace procedures 1.7 Set the process to meet production requirements
2. Operate and monitor fermentation operations	2.1 Start up the fermentation process according to workplace procedures 2.2 Monitor production process to confirm fermentation operation meets specifications 2.3 Identify and address non-conformance of product, process and equipment according to workplace procedures
3. Complete fermentation operations	3.1 Identify and implement appropriate shutdown procedures 3.2 Dismantle equipment safely and prepare for cleaning 3.3 Collect, treat and dispose of or recycle waste generated by both the fermentation process and cleaning procedures 3.4 Record workplace information according to workplace procedures

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"> <li>Comprehend instructions in workplace documents</li> </ul>
Writing	<ul style="list-style-type: none"> <li>Complete workplace documents in required format</li> </ul>
Numeracy	<ul style="list-style-type: none"> <li>Perform calculations required to prepare production materials for the process</li> </ul>

Skill	Description
	<ul style="list-style-type: none"> <li>Monitors supply and flow of materials to and from the process</li> </ul>
Navigate the world of work	<ul style="list-style-type: none"> <li>Apply workplace procedures to own role and responsibilities</li> </ul>
Interact with others	<ul style="list-style-type: none"> <li>Use required communication mode to report operational information to relevant personnel</li> </ul>
Get the work done	<ul style="list-style-type: none"> <li>Plan, sequence and implement tasks according to set routines and procedures</li> <li>Respond to routine problems by referring to workplace procedures</li> </ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPCEL2002 Perform fermentation operations	FDFCEL2002A Perform fermentation operations	<p>Updated to meet Standards for Training Packages</p> <p>Minor changes to Elements and Performance Criteria for clarity</p> <p>Prerequisites removed</p>	Equivalent unit

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# Assessment Requirements for FBPCEL2002 Perform fermentation operations

## Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

## Performance Evidence

An individual demonstrating competency must satisfy all of the elements and performance criteria in this unit.

There must be evidence that the individual has performed at least one fermentation operation including:

- accessing workplace information to identify fermentation processing requirements
- conducting work according to environmental and health and safety requirements in the workplace
- selecting and fitting appropriate personal protective equipment
- checking supply and status of materials before commencing fermentation operation
- preparing and confirming status of equipment and services before commencing fermentation process
- setting up and starting the fermentation process
- conducting work safely and following health and safety procedures including identifying hazards and controlling risks associated with working in confined spaces
- monitoring the fermentation process
- taking corrective action in response to non-conformance results
- shutting down the process after fermentation operations are completed.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- purpose of the fermentation process and the links between fermentation and other processes used in wine operations
- basic operating principles of fermentation equipment
- materials used in the fermentation process including:
  - grape varieties, whole fruit bunches and common additives

- preparation requirements and effect of variation on the fermentation process
- main fermentation techniques and how these techniques can affect the characteristics of the wine
- product, materials and equipment preparation requirements and effect of variation on the fermentation process
- techniques that may be used to manipulate the fermentation process and wine characteristics, including:
  - pressure
  - temperature
  - yeast variety or strain
  - carbon dioxide
  - skin contact
  - type of fermentation vessel
  - additions
- methods used to monitor the process
- common causes of non-conformance results for product, process and equipment and corrective action required including:
  - issues that can be rectified
  - issues that must be reported
- responsibilities for health and safety in the workplace including:
  - health and safety hazards associated with the fermentation process
  - methods for controlling risks associated with health and safety hazards, including confined space entry
- responsibilities for identifying and controlling environmental issues
- workplace procedures and responsibility for:
  - reporting problems
  - shutting down the process
  - cleaning
  - handling waste
  - recording required information.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - a wine operations workplace or an environment that accurately represents workplace conditions
- resources, equipment and materials:
  - personal protective equipment for fermentation operations
  - materials and equipment for confined space entry (if required)
  - equipment and materials for fermentation process

- system for recording and reporting information
- specifications:
  - workplace procedures for fermentation operations.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## FBPCEL2003 Operate the ion exchange process

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

### Application

This unit of competency describes the skills and knowledge required to operate ion exchange equipment used in winemaking operations.

The unit applies to individuals who work in winemaking operations and take responsibility for their own work. Individuals generally work under supervision but have some autonomy and accountability for their own work.

All work must be carried out to comply with workplace procedures, according to state/territory health and safety regulations, legislation and standards that apply to the workplace.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication

### Pre-requisite Unit

Nil

### Unit Sector

Cellar Operations (CEL)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare the ion exchange process for operation	1.1 Confirm work instructions and identify potential health and safety hazards and controls according to workplace procedures 1.2 Select and fit personal protective equipment according to job

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	requirements 1.3 Confirm environmental guidelines and identify potential health and safety hazards and controls according to workplace procedures 1.4 Confirm availability and prepare product and materials to meet ion exchange operation requirements 1.5 Check equipment to confirm readiness for use according to workplace procedures 1.6 Set the process to meet ion exchange requirements and job requirements
2. Operate and monitor the ion exchange process	2.1 Start up the ion exchange process according to workplace procedures 2.2 Monitor ion exchange process to confirm that ion exchanged product meets specification 2.3 Identify and address non-conformance of product, process and equipment according to workplace procedures
3. Shut down the ion exchange process	3.1 Identify and implement appropriate shutdown procedures 3.2 Dismantle equipment safely and prepare for cleaning 3.3 Collect, treat and dispose of or recycle waste generated by the ion exchange process 3.4 Record workplace information according to workplace procedures

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"> <li>Comprehend instructions in workplace documents</li> </ul>
Writing	<ul style="list-style-type: none"> <li>Complete workplace documents in required format</li> </ul>
Numeracy	<ul style="list-style-type: none"> <li>Perform calculations required to prepare production materials for the process</li> </ul>

Skill	Description
	<ul style="list-style-type: none"> <li>Monitor supply and flow of materials to and from the process</li> </ul>
Navigate the world of work	<ul style="list-style-type: none"> <li>Apply workplace procedures and legislative responsibilities to own role</li> </ul>
Interact with others	<ul style="list-style-type: none"> <li>Use required communication mode to report operational information to relevant personnel</li> </ul>
Get the work done	<ul style="list-style-type: none"> <li>Plan, sequence and implement tasks according to set routines and procedures</li> <li>Respond to routine problems using workplace instructions and procedures</li> </ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPCEL2003 Operate the ion exchange process	FDFCEL2003A Operate the ion exchange process	<p>Updated to meet Standards for Training Packages</p> <p>Minor changes to Elements and Performance Criteria for clarity</p> <p>Prerequisites removed</p>	Equivalent unit

## Links

Companion Volume Implementation Guides are found in VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>



# Assessment Requirements for FBPCEL2003 Operate the ion exchange process

## Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

## Performance Evidence

An individual demonstrating competency must satisfy all of the elements and performance criteria in this unit.

There must be evidence that the individual has operated at least one ion exchange process:

- accessing workplace information to identify ion exchange requirements
- selecting and fitting appropriate personal protective equipment
- conducting work according to environmental and health and safety requirements in the workplace
- checking supply and status of product and ion exchange agents before commencing ion exchange process
- preparing and confirming status of equipment and services before commencing ion exchange process
- setting up and starting up the ion exchange process
- monitoring ion exchange process to maintain quality specifications
- taking corrective action in response to non-conformance results
- shutting down the process after ion exchange operations are completed.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit.

This includes knowledge of:

- purpose and principles of ion exchange process and links between ion exchange process and related processes in cellar operations
- stages and changes which occur during ion exchange process and the effect of process stages on the end product quality characteristics and uses of ion exchange product and materials
- manual and computer-controlled ion exchange equipment

- methods used to monitor the process common causes of non-conformance and corrective action required
- health and safety hazards in the workplace and controls
- routine shutdown preparation requirements
- workplace procedures and responsibility for:
  - reporting problems
  - environmental issues and controls
  - waste handling requirements
  - recording requirements.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - a wine operations workplace or an environment that accurately represents workplace conditions
- resources, equipment and materials:
  - personal protective equipment for ion exchange operations
  - equipment and materials for ion exchange process
  - products for ion exchange
  - system for recording and reporting information
- specifications:
  - workplace procedures for ion exchange operations.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## FBPCEL2004 Perform heat exchange operations

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0

### Application

This unit of competency describes the skills and knowledge required to prepare and operate heat exchange equipment.

The unit applies to individuals who work in winemaking operations and take responsibility for their own work. Individuals generally work under supervision but have some autonomy and accountability for their own work.

All work must be carried out to comply with workplace procedures, according to state/territory health and safety, and food safety regulations, legislation and standards that apply to the workplace.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

### Pre-requisite Unit

Nil

### Unit Sector

Cellar Operations (CEL)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare the heat exchange process for operation	1.1 Identify and confirm heat exchange operations requirements 1.2 Confirm availability of required materials and services to meet heat exchange operations requirements

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	1.3 Confirm environmental guidelines and identify potential health and safety hazards and controls according to workplace procedures 1.4 Select and fit personal protective equipment required for heat exchange operations 1.5 Prepare materials to meet heat exchange operations requirements 1.6 Check equipment to confirm readiness for use according to workplace procedures 1.7 Set the process to meet heat exchange operations requirements
2. Operate and monitor the heat exchange process	2.1 Start up the heat exchange process according to workplace procedures 2.2 Monitor control points to confirm performance meets specifications 2.3 Identify and address non-conformance of product, process and equipment according to workplace procedures
3. Shut down the heat exchange process	3.1 Identify and implement appropriate shutdown procedures 3.2 Dismantle equipment safely and prepare for cleaning 3.3 Collect, treat and dispose of or recycle waste generated by both the heat exchange process and cleaning procedures 3.4 Record workplace information according to workplace procedures

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"> <li>Comprehend instructions in workplace documents</li> </ul>
Writing	<ul style="list-style-type: none"> <li>Complete workplace documents in required format</li> </ul>
Numeracy	<ul style="list-style-type: none"> <li>Perform calculations relating to measurements, quantities and operational specifications</li> <li>Interpret symbols and numbers during monitoring of process</li> </ul>

Skill	Description
Navigate the world of work	<ul style="list-style-type: none"> <li>Apply workplace procedures and legislative responsibilities to own role</li> </ul>
Interact with others	<ul style="list-style-type: none"> <li>Use required communication mode to report operational information to relevant personnel</li> </ul>
Get the work done	<ul style="list-style-type: none"> <li>Plan, sequence and implement tasks according to set routines and procedures</li> <li>Respond to routine problems using workplace instructions and procedures</li> </ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPCEL2004 Perform heat exchange operations	FDFCEL2011A Perform heat exchange operations	<p>Updated to meet Standards for Training Packages</p> <p>Minor changes to Elements and Performance Criteria for clarity</p> <p>Prerequisites removed</p>	Equivalent unit

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# Assessment Requirements for FBPCEL2004 Perform heat exchange operations

## Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0

## Performance Evidence

An individual demonstrating competency must satisfy all of the elements and performance criteria in this unit.

There must be evidence that the individual has demonstrated at least one heat exchange operation:

- accessing workplace information to identify heat exchange processing requirements
- selecting and fitting appropriate personal protective equipment (PPE)
- conducting work according to environmental and health and safety requirements in the workplace
- checking supply and status of materials before commencing heat exchange operation
- preparing and confirming status of equipment and services before commencing heat exchange process
- setting up and starting up heat exchange process
- monitoring the heat exchange process
- taking corrective action in response to non-compliance results
- shutting down the process after heat exchange operations are completed.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- purpose of the heat exchange process and the links between heat exchange and other processes used in wine operations
- basic operating principles of heat exchange equipment
- materials used in the heat exchange process including:
  - grape varieties, whole fruit bunches and common additives
  - preparation requirements and effect of variation on the heat exchange process

- main heat exchange techniques and how these techniques can affect the characteristics of the wine
- methods used to monitor the process
- common causes of non-conformance results for product, process and equipment and corrective action required including:
  - issues that can be rectified
  - issues that must be reported
- responsibilities for health and safety in the workplace including:
  - health and safety hazards associated with the heat exchange process
  - methods for controlling risks associated with health and safety hazards
- responsibilities for identifying and controlling environmental issues
- workplace procedures and responsibility for:
  - reporting problems
  - shutting down the process
  - cleaning
  - handling waste
  - recording required information.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - a wine operations workplace or an environment that accurately represents workplace conditions
- resources, equipment and materials:
  - PPE for heat exchange operations
  - equipment and materials for heat exchange process
  - system for recording and reporting information
- specifications:
  - workplace procedures for heat exchange operations.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## FBPCEL2005 Perform must draining operations

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

### Application

This unit of competency describes the skills and knowledge required to perform must draining operations in wine making. It may involve work in confined spaces.

The unit applies to individuals who work in winemaking operations and take responsibility for their own work. Individuals generally work under supervision but have some autonomy and accountability for their own work.

All work must be carried out to comply with workplace procedures, according to state/territory health and safety, and food safety regulations, legislation and standards that apply to the workplace.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication. Users are advised to check with the relevant state or territory health and safety workplace authority for advice on confined space entry.

### Pre-requisite Unit

Nil

### Unit Sector

Cellar Operations (CEL)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare for must draining operations	1.1 Identify and confirm must draining operations requirements 1.2 Confirm availability of required materials and services to meet



Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	<p>must draining operations requirements</p> <p>1.3 Confirm environmental guidelines and identify potential health and safety hazards and controls according to workplace procedures</p> <p>1.4 Select and fit personal protective equipment required for must draining operations</p> <p>1.5 Prepare materials to meet must draining operations requirements</p> <p>1.6 Check equipment to confirm readiness for use according to workplace procedures</p> <p>1.7 Set the process to meet must draining operations requirements</p>
2. Operate and monitor must draining operations	<p>2.1 Start up the must draining process according to workplace procedures</p> <p>2.2 Monitor must draining process to confirm product meets specifications</p> <p>2.3 Identify and address non-conformance of product, process and equipment according to workplace procedures</p>
3. Complete must processing operations	<p>3.1 Identify and implement appropriate shutdown procedures</p> <p>3.2 Dismantle equipment safely and prepare for cleaning</p> <p>3.3 Collect, treat and dispose of or recycle waste generated by both the must draining process and cleaning procedures</p> <p>3.4 Record workplace information according to workplace procedures</p>

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"> <li>Comprehend instructions in workplace documents</li> </ul>
Writing	<ul style="list-style-type: none"> <li>Complete workplace documents in required format</li> </ul>
Numeracy	<ul style="list-style-type: none"> <li>Perform calculations relating to measurements, quantities and operational specifications</li> </ul>

Skill	Description
	<ul style="list-style-type: none"> <li>Interpret symbols and numbers during monitoring of process</li> </ul>
Navigate the world of work	<ul style="list-style-type: none"> <li>Apply workplace procedures and legislative responsibilities to own role</li> </ul>
Interact with others	<ul style="list-style-type: none"> <li>Use required communication mode to report operational information to relevant personnel</li> </ul>
Get the work done	<ul style="list-style-type: none"> <li>Plan, sequence and implement tasks according to set routines and procedures</li> <li>Respond to routine problems using workplace instructions and procedures</li> </ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPCEL2005 Perform must draining operations	FDFCEL2015A Perform must draining operations	<p>Updated to meet Standards for Training Packages</p> <p>Minor changes to Elements and Performance Criteria for clarity</p> <p>Prerequisites removed</p>	Equivalent unit

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# Assessment Requirements for FBPCEL2005 Perform must draining operations

## Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

## Performance Evidence

An individual demonstrating competency must satisfy all of the elements and performance criteria in this unit.

There must be evidence that the individual has operated at least one must draining process, including:

- accessing workplace information to identify must draining requirements
- selecting and fitting appropriate personal protective equipment (PPE)
- checking supply and status of materials before commencing must draining operation
- preparing and confirming status of equipment and services before commencing must draining process
- setting up and starting the must draining process
- monitoring the must draining process
- taking corrective action in response to non-conformance results
- shutting down the process after must draining operations are completed
- conducting work according to environmental and health and safety requirements in the workplace.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- purpose of the must draining process and the links between must draining and other processes used in wine operations
- basic operating principles of must draining equipment
- materials used in the must draining process including:
  - grape varieties, whole fruit bunches and common additives
  - preparation requirements and effect of variation on the pressing process

- main must draining techniques and how these techniques can affect the characteristics of the wine
- methods used to monitor the process
- common causes of non-conformance results for product, process and equipment and corrective action required including:
  - issues that can be rectified
  - issues that must be reported
- responsibilities for health and safety in the workplace including:
  - health and safety hazards associated with the must draining process
  - methods for controlling risks associated with health and safety hazards, including confined space entry
- responsibilities for identifying and controlling environmental issues
- workplace procedures and responsibility for:
  - reporting problems
  - shutting down the process
  - cleaning
  - handling waste
  - recording required information.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - a wine operations workplace or an environment that accurately represents workplace conditions
- resources, equipment and materials:
  - PPE for must draining operations
  - equipment and materials for must draining process
  - system for recording and reporting information
- specifications:
  - workplace procedures for pressing operations.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## FBPCEL2006 Operate the crushing process

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

### Application

This unit of competency describes the skills and knowledge required to prepare and operate crushing equipment in a wine cellar environment and may involve work in confined spaces.

The unit applies to individuals who work in winemaking operations and take responsibility for their own work. Individuals generally work under supervision but have some autonomy and accountability for their own work.

All work must be carried out to comply with workplace procedures, according to state/territory health and safety, and food safety regulations, legislation and standards that apply to the workplace.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication. Users are advised to check with the relevant state or territory health and safety workplace authority for advice on confined space entry.

### Pre-requisite Unit

Nil

### Unit Sector

Cellar Operations (CEL)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare the crushing process for operation	1.1 Identify and confirm production requirements 1.2 Confirm availability and prepare product and materials to meet

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	crushing requirements 1.3 Confirm environmental guidelines and identify potential health and safety hazards and controls according to workplace procedures 1.4 Select and fit personal protective equipment required for production 1.5 Prepare materials to meet production requirements 1.6 Check equipment to confirm readiness for use according to workplace procedures 1.7 Set up the process to meet production requirements
2. Operate and monitor the crushing process	2.1 Start up the crushing process according to workplace procedures 2.2 Monitor crushing process to confirm crushed product meets specifications 2.3 Identify and address non-conformance product, process and equipment according to workplace procedures
3. Shut down the crushing process	3.1 Identify and implement appropriate shutdown procedures 3.2 Dismantle equipment safely and prepare for cleaning 3.3 Collect, treat and dispose of or recycle waste generated by both the crushing process and cleaning procedures 3.4 Record workplace information according to workplace procedures

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"> <li>Comprehend instructions in workplace documents</li> </ul>
Writing	<ul style="list-style-type: none"> <li>Complete workplace documents in required format</li> </ul>
Numeracy	<ul style="list-style-type: none"> <li>Perform calculations relating to measurements, quantities and operational specifications</li> <li>Interpret symbols and numbers during monitoring of process</li> </ul>

Skill	Description
Navigate the world of work	<ul style="list-style-type: none"> <li>Apply workplace procedures and legislative responsibilities to own role</li> </ul>
Interact with others	<ul style="list-style-type: none"> <li>Use required communication mode to report operational information to relevant personnel</li> </ul>
Get the work done	<ul style="list-style-type: none"> <li>Plan, sequence and implement tasks according to set routines and procedures</li> <li>Respond to routine problems using workplace instructions and procedures</li> </ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPCEL2006 Operate the crushing process	FDFCEL2016A Operate the crushing process	<p>Updated to meet Standards for Training Packages</p> <p>Minor changes to Elements and Performance Criteria for clarity</p> <p>Prerequisites removed</p>	Equivalent unit

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# Assessment Requirements for FBPCEL2006 Operate the crushing process

## Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

## Performance Evidence

An individual demonstrating competency must satisfy all of the elements and performance criteria in this unit.

There must be evidence that the individual has operated at least one crushing process, including:

- accessing workplace information to identify crushing requirements
- selecting and fitting personal protective equipment (PPE)
- confirming supply of services, materials and product required for crushing
- preparing and confirming status of product and materials prior to crushing process commencement
- setting up and starting up the crushing process
- monitoring the crushing process
- taking corrective action in response to non-conformance results
- shutting down the process after crushing operations are completed
- conducting work according to environmental and health and safety requirements in the workplace.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- purpose and principles of crushing and links between crushing process and related processes in wine operations
- stages and changes which occur during crushing and the effect of crushing stages on the end product
- method of monitoring the crushing process and common causes of non-conformance and corrective action required
- health and safety hazards in the workplace and controls



- workplace procedures and responsibility for:
  - reporting problems
  - environmental issues and controls
  - waste handling requirements
  - recording requirements.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - a wine operations workplace or an environment that accurately represents workplace conditions
- resources, equipment and materials:
  - PPE for crushing operations
  - equipment and materials for crushing process
  - products for crushing
  - system for recording and reporting information
- specifications:
  - workplace procedures for crushing operations.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## FBPCEL2007 Prepare and make additions and finings

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

### Application

This unit of competency describes the skills and knowledge required to prepare and add finings and additions to wine.

The unit applies to individuals who work in winemaking operations and take responsibility for their own work. Individuals generally work under supervision but have some autonomy and accountability for their own work.

All work must be carried out to comply with workplace procedures, according to state/territory health and safety, and food safety regulations, legislation and standards that apply to the workplace.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

### Pre-requisite Unit

Nil

### Unit Sector

Cellar Operations (CEL)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare additions and finings	1.1 Identify and confirm production requirements 1.2 Confirm availability of required materials and services to meet production requirements

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	1.3 Confirm environmental guidelines and identify potential workplace health and safety hazards and controls according to workplace procedures 1.4 Select and fit personal protective equipment required for production 1.5 Prepare materials to meet production requirements 1.6 Check equipment to confirm readiness for use according to workplace procedures 1.7 Set up the process to meet production requirements 1.8 Weigh or measure product and materials to meet requirements
2. Make additions and finings	2.1 Start equipment to ensure product is mixing 2.2 Make addition or fining to product according to workplace procedures 2.3 Monitor production process to confirm additions and finings product meets specifications 2.4 Identify and address non-conformance of product, process and equipment according to workplace procedures
3. Complete additions and finings	3.1 Identify appropriate shutdown procedures 3.2 Dismantle equipment safely and prepare for cleaning 3.3 Collect, treat and dispose of or recycle waste generated by both the additions and finings process and cleaning procedures 3.4 Record workplace information according to workplace procedures

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"> <li>Comprehend instructions in workplace documents</li> </ul>
Writing	<ul style="list-style-type: none"> <li>Complete workplace documents in required format</li> </ul>

Skill	Description
Numeracy	<ul style="list-style-type: none"> <li>Perform calculations required to weigh or measure materials required for process</li> <li>Interpret symbols or numbers during monitoring of process</li> </ul>
Navigate the world of work	<ul style="list-style-type: none"> <li>Apply workplace procedures and legislative responsibilities to own role</li> </ul>
Interact with others	<ul style="list-style-type: none"> <li>Use required communication mode to report operational information to relevant personnel</li> </ul>
Get the work done	<ul style="list-style-type: none"> <li>Plan, sequence and implement tasks according to set routines and procedures</li> <li>Respond to routine problems using workplace instructions and procedures</li> </ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPCEL2007 Prepare and make additions and finings	FDFCEL2017A Prepare and make additions and finings	<p>Updated to meet Standards for Training Packages</p> <p>Minor changes to Elements and Performance Criteria for clarity</p>	Equivalent unit

## Links

Companion Volume Implementation Guides are found in VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## Assessment Requirements for FBPCEL2007 Prepare and make additions and finings

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

### Performance Evidence

An individual demonstrating competency must satisfy all of the elements and performance criteria in this unit.

There must be evidence that the individual has made at least four different additions or finings using at least two different techniques and methods of addition, including:

- accessing workplace information to identify requirements for adding finings and additions
- selecting and fitting appropriate personal protective equipment
- checking supply and status of materials before commencing additions and finings operation
- preparing and confirming status of equipment and services before commencing additions and finings process
- setting up and starting the additions and finings process
- monitoring the additions and finings process
- taking corrective action in response to non-conformance results
- shutting down the process after additions and finings operations are completed
- conducting work according to environmental and workplace health and safety requirements.

### Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- purpose of additions and fining that is used and the links between additions and finings and other processes used in wine operations
- basic operating principles of preparing and making additions and finings
- quality characteristics of product and materials used and effect on process outcome
- main additions and finings mixing techniques and how these techniques can affect the characteristics of the wine:

- pumping over
- gas mixing
- rummaging
- stirring
- submersible mixers
- in-place mixers/tank agitators
- portable guth agitators
- methods for adding:
  - venturi
  - dosing
  - direct, tipping in or pumping in while wine mixing
- methods used to monitor the process
- common causes of non-conformance results for product, process and equipment and corrective action required including:
  - issues that can be rectified
  - issues that must be reported
- responsibilities for health and safety in the workplace including:
  - health and safety hazards associated with the additions and finings process
  - methods for controlling risks associated with health and safety hazards, including confined space entry
- responsibilities for identifying and controlling environmental issues
- workplace procedures and responsibility for:
  - reporting problems
  - shutting down the process
  - cleaning
  - handling waste
  - recording required information.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - a wine operations workplace or an environment that accurately represents workplace conditions
- resources, equipment and materials:
  - personal protective equipment for additions and finings operations
  - equipment and materials for additions and finings activities
  - system for recording and reporting information
- specifications:
  - workplace procedures for preparing and making additions and finings.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## **Links**

Companion Volume Implementation Guides are found in VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## FBPCEL2008 Carry out inert gas handling operations

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

### Application

This unit of competency describes the skills and knowledge required to use and handle inert gases in solid or gaseous state including the manufacture of carbon dioxide bricks or snow.

The unit applies to individuals who work in cellar operations and take responsibility for their own work. Individuals generally work under supervision but have some autonomy and accountability for their own work.

All work must be carried out to comply with workplace procedures, according to state/territory health and safety, and food safety regulations, legislation and standards that apply to the workplace.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

### Pre-requisite Unit

Nil

### Unit Sector

Cellar Operations (CEL)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Select gases appropriate to the task	1.1 Identify and confirm workplace procedures 1.2 Confirm availability of appropriate gas or gases to meet workplace procedures



Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	1.3 Confirm environmental guidelines and identify potential health and safety hazards and controls according to workplace procedures 1.4 Select and fit personal protective equipment required for production 1.5 Determine risk factors based on the characteristics of the gas or gases to be used and handled
2. Prepare and use gases in winery operations	2.1 Select the appropriate gas handling equipment and prepare, set up and operate according to workplace procedures 2.2 Confirm that gas type and quantity delivered meets specification 2.3 Handle and monitor gas safely according to specific risk factors 2.4 Manufacture carbon dioxide bricks or snow according to workplace procedures 2.5 Identify and address non-conformance of product, process and equipment
3. Complete gas handling operations	3.1 Shut equipment down according to workplace procedures 3.2 Prepare equipment for cleaning following safe work practices 3.3 Collect, treat and dispose of or recycle waste generated by both the process and cleaning procedures 3.4 Record workplace information according to workplace procedures

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"> <li>Comprehend instructions in workplace documents</li> </ul>
Writing	<ul style="list-style-type: none"> <li>Complete workplace documents in required format</li> </ul>
Numeracy	<ul style="list-style-type: none"> <li>Calculate and monitor amount of gas required for the process</li> </ul>
Navigate the world of	<ul style="list-style-type: none"> <li>Apply workplace procedures and legislative responsibilities to own role</li> </ul>

Skill	Description
work	
Interact with others	<ul style="list-style-type: none"> <li>Use required communication mode to report operational information to relevant personnel</li> </ul>
Get the work done	<ul style="list-style-type: none"> <li>Plan, sequence and implement tasks according to set routines and procedures</li> <li>Respond to routine problems using workplace instructions and procedures</li> </ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPCEL2008 Carry out inert gas handling operations	FDFCEL2018A Carry out inert gas handling operations	<p>Updated to meet Standards for Training Packages</p> <p>Minor changes to Elements and Performance Criteria for clarity</p>	Equivalent unit

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# Assessment Requirements for FBPCCEL2008 Carry out inert gas handling operations

## Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

## Performance Evidence

An individual demonstrating competency must satisfy all of the elements and performance criteria in this unit.

There must be evidence that the individual has carried out inert gas handling operations and demonstrated the following on at least two separate occasions:

- accessing workplace information to identify inert gas handling requirements
- selecting, fitting and using personal protective equipment (PPE)
- selecting appropriate gases to meet requirements:
  - single or blend of gases
  - gaseous or solid form
  - dosage
  - interpreting cylinder or service line information
- confirming supply of services and gases for requirements
- selecting equipment appropriate to the task and gas to be handled
- setting up, preparing and operating equipment according to workplace procedures
- manufacturing carbon dioxide bricks or snow
- delivering gas according to specifications
- monitoring gas handling process:
  - gas pressure
  - gas flow
  - integrity of seals
- taking corrective action in response to non-conformance results
- shutting down equipment in routine situations
- conducting work according to environmental and health and safety requirements in the workplace.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- purpose and principles of using inert gases in cellar operations
- properties and functions of gases
- hazards and risks associated with different forms or types of gas
- gas handling policy and procedures
- factors affecting choice of gas or gas blends:
  - wine type and style
  - winemaker preference
- equipment set up, preparation and operation procedures and requirements including settings and key variables
- purpose of PPE
- legislative requirements as they affect immediate gas handling responsibilities
- steps in manufacturing process for dry ice bricks or snow
- requirements to liaise or advise related work areas
- routine shutdown and cleaning preparation requirements
- workplace health and safety requirements
- workplace procedures and responsibility for:
  - reporting problems
  - waste handling requirements
  - environmental issues and controls
  - recording requirements.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - a wine operations workplace or an environment that accurately represents workplace conditions
- resources, equipment and materials:
  - PPE for inert gas handling operations
  - equipment, cylinders and materials for inert gas handling operations
  - gas or gases to meet work instruction
  - system for recording and reporting information
- specifications:
  - workplace procedures for inert gas handling operations.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## FBPCEL2009 Carry out transfer operations

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

### Application

This unit of competency describes the skills and knowledge required to transfer various types of input and finished products.

The unit applies to individuals who work in cellar, bottling or distillation and take responsibility for their own work. Individuals generally work under supervision but have some autonomy and accountability for their own work.

All work must be carried out to comply with workplace procedures, according to state/territory health and safety, and food safety regulations, legislation and standards that apply to the workplace.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

### Pre-requisite Unit

Nil

### Unit Sector

Cellar Operations (CEL)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare the transfer process for operation	1.1 Identify and confirm transfer requirements 1.2 Confirm availability of product, materials and services to meet transfer requirements

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	1.3 Confirm environmental guidelines and identify potential health and safety in the workplace hazards and controls according to workplace procedures 1.4 Select, fit and use personal protective equipment required for the transfer process 1.5 Prepare product and materials to meet transfer requirements 1.6 Check equipment to confirm readiness for use according to workplace procedures 1.7 Set the process to meet transfer requirements
2. Operate and monitor the transfer process	2.1 Start up the transfer process according to workplace procedures 2.2 Monitor process to confirm transfer operation meets specifications 2.3 Identify and address non-conformance product, process and equipment according to workplace procedures
3. Shut down the transfer process	3.1 Identify and implement appropriate shutdown procedures 3.2 Dismantle equipment safely and prepare for cleaning 3.3 Collect, treat and dispose of or recycle waste generated by both the transfer process and cleaning procedures 3.4 Record workplace information according to workplace procedures

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"> <li>Comprehend instructions in workplace documents</li> </ul>
Writing	<ul style="list-style-type: none"> <li>Complete workplace documents in required format</li> </ul>
Numeracy	<ul style="list-style-type: none"> <li>Perform calculations required to prepare materials for the process</li> <li>Interpret symbols and numbers during monitoring of process</li> </ul>
Navigate the world of work	<ul style="list-style-type: none"> <li>Apply workplace procedures and legislative responsibilities to own role</li> </ul>

Skill	Description
Interact with others	<ul style="list-style-type: none"><li>• Use required communication mode to report operational information to relevant personnel</li></ul>
Get the work done	<ul style="list-style-type: none"><li>• Plan, sequence and implement tasks according to set routines and procedures</li><li>• Respond to routine problems using workplace instructions and procedures</li></ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPCEL2009 Carry out transfer operations	FDFCEL2019A Carry out transfer operations	Updated to meet Standards for Training Packages  Minor changes to Elements and Performance Criteria for clarity	Equivalent unit

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>



# Assessment Requirements for FBPCEL2009 Carry out transfer operations

## Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

## Performance Evidence

An individual demonstrating competency must satisfy all of the elements and performance criteria in this unit.

There must be evidence that the individual has operated at least one transfer process, including:

- accessing workplace information to identify transfer requirements
- selecting, fitting and using personal protective equipment
- checking supply and status of materials before commencing transfer operation
- preparing and confirming status of equipment and services before commencing transfer process
- setting up and starting the transfer process
- monitoring the transfer process
- taking corrective action in response to non-conformance results
- shutting down the process after transfer operations are completed
- conducting work according to environmental and health and safety requirements.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- purpose of the transfer process and the links between transfer operations and other processes used in wine operations
- basic operating principles of transfer equipment
- equipment used in the transfer process including:
  - pumps
  - hoses
  - valves
  - fixed lines

- fittings
- control instruments
- methods used to monitor the transfer process
- common causes of non-conformance results for product, process and equipment and corrective action required including:
  - issues that can be rectified
  - issues that must be reported
- responsibilities for health and safety in the workplace including:
  - health and safety hazards associated with the pressing process
  - methods for controlling risks associated with health and safety hazards, including confined space entry
- responsibilities for identifying and controlling environmental issues
- workplace procedures and responsibility for:
  - reporting problems
  - shutting down the process
  - cleaning
  - handling waste
  - recording required information.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - a wine operations workplace or an environment that accurately represents workplace conditions
- resources, equipment and materials:
  - personal protective equipment for pressing operations
  - equipment and materials for transfer operations
  - system for recording and reporting information
- specifications:
  - workplace procedures for transfer operations.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## FBPCEL2010 Prepare and wax tanks

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

### Application

This unit of competency describes the skills and knowledge required to prepare and wax tanks in winemaking. It may involve work in confined spaces.

The unit applies to individuals who work in winemaking operations and take responsibility for their own work. Individuals generally work under supervision but have some autonomy and accountability for their own work.

All work must be carried out to comply with workplace procedures, according to state/territory health and safety, and food safety regulations, legislation and standards that apply to the workplace.

Legislative requirements relating to confined space entry and hot work controls apply to this unit. Special tank entry and breathing equipment may be required. Users are advised to check with the relevant state/territory health and safety in the workplace authority.

### Pre-requisite Unit

Nil

### Unit Sector

Cellar Operations (CEL)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare materials and tank for waxing	1.1 Identify and confirm waxing requirements 1.2 Confirm environmental guidelines and identify potential health and safety in the workplace hazards and controls according to

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	workplace procedures 1.3 Select, fit and use personal protective equipment required for waxing process 1.4 Confirm with supervisor that the relevant worksite permits have been obtained prior to commencement of waxing process 1.5 Prepare tank and confirm that it is ready to wax in accordance with workplace procedures 1.6 Check equipment and confirm readiness for use according to workplace procedures 1.7 Confirm that services are available and operational to meet waxing requirements 1.8 Prepare wax according to manufacturer's and workplace instructions
2. Wax tanks	2.1 Remove top layer of wax following safe work practices 2.2 Apply wax according to workplace procedures 2.3 Operate equipment according to workplace procedures and manufacturer instructions 2.4 Monitor waxing process and address non-conformances in process and equipment according to workplace procedures 2.5 Confirm waxed tank meets waxing requirements
3. Complete tank waxing activities	3.1 Identify and implement appropriate equipment shutdown procedures 3.2 Clean and store equipment 3.3 Collect, treat and dispose of or recycle waste generated by both the waxing process and cleaning procedures 3.4 Return tank to operating order according to workplace procedures 3.5 Record workplace information according to workplace procedures

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"> <li>Comprehend instructions in workplace documents</li> </ul>
Writing	<ul style="list-style-type: none"> <li>Complete workplace documents in required format</li> </ul>
Numeracy	<ul style="list-style-type: none"> <li>Perform calculations relating to measurements, quantities and operational specifications</li> </ul>
Navigate the world of work	<ul style="list-style-type: none"> <li>Apply workplace procedures and legislative responsibilities to own role</li> </ul>
Interact with others	<ul style="list-style-type: none"> <li>Use required communication mode to report operational information to relevant personnel</li> </ul>
Get the work done	<ul style="list-style-type: none"> <li>Plan, sequence and implement tasks according to set routines and procedures</li> <li>Respond to routine problems using workplace instructions and procedures</li> </ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPCEL2010 Prepare and wax tanks	FDFCEL2020A Prepare and wax tanks	<p>Updated to meet Standards for Training Packages</p> <p>Minor changes to Elements and Performance Criteria for clarity</p>	Equivalent unit

## Links

Companion Volume Implementation Guides are found in VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# Assessment Requirements for FBPCEL2010 Prepare and wax tanks

## Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

## Performance Evidence

An individual demonstrating competency must satisfy all of the elements and performance criteria in this unit.

There must be evidence that the individual has prepared and waxed at least one tank, including:

- accessing workplace information to identify waxing requirements
- selecting, fitting and using appropriate personal protective equipment
- checking supply and status of material, equipment and services before commencing waxing
- carrying out the waxing process
- conducting work safely and following health and safety procedures including identifying hazards and controlling risks associated with working in confined spaces
- monitoring the process and taking corrective action in response to non-conformance results
- correctly completing and finishing the waxing process
- conducting work according to environmental and health and safety requirements.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- purpose of waxing tanks and the links between waxing and other processes used in wine operations
- basic operating principles of waxing equipment
- materials used in the waxing process including preparation requirements and effect of variation on the waxing process:
  - tanks with damage
  - different wax mix preparation requirements

- methods used to monitor the process
- common causes of non-conformance results for product, process and equipment and corrective action required including:
  - issues that can be rectified
  - issues that must be reported
- responsibilities for health and safety in the workplace including:
  - health and safety hazards associated with the waxing process
  - methods for controlling risks associated with work health and safety hazards, including confined space entry
- responsibilities for identifying and controlling environmental issues
- workplace procedures and responsibility for:
  - confined space entry
  - reporting problems
  - shutting down the process
  - cleaning
  - handling waste
  - recording required information.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - a wine operation workplace or an environment that accurately represents workplace conditions
- resources, equipment and materials:
  - personal protective equipment for waxing operations
  - materials and equipment for confined space entry (if required)
  - equipment and materials for waxing process
  - system for recording and reporting information
- specifications:
  - workplace procedures for preparing and waxing tanks.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## FBPCEL3001 Handle and store spirits

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

### Application

This unit of competency describes the skills and knowledge required to handle and store spirits in wine or spirit making workplaces.

This unit applies to individuals working in either a distillation facility or in a winery where they handle spirits as part of the fortification process of wine.

All work must be carried out to comply with workplace procedures, according to state/territory health and safety, and food safety regulations, legislation and standards that apply to the workplace.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

### Pre-requisite Unit

Nil

### Unit Sector

Cellar Operations (CEL)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare to handle spirits	1.1 Identify and confirm job requirements 1.2 Identify applicable spirit handling and storage workplace procedures, environmental guidelines and legislative requirements 1.3 Select, fit and use personal protective equipment relevant to the



Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	job requirements 1.4 Identify health and safety in the workplace hazards, assess risks and implement control measures
2. Undertake spirit handling and storage activities	2.1 Locate and identify spirit according to job requirements 2.2 Confirm sampling and testing requirements for spirit 2.3 Identify equipment needed and check to ensure availability, safety and readiness for use 2.4 Set up equipment to meet job requirements and workplace procedures 2.5 Operate and monitor equipment to ensure job requirements are being met 2.6 Identify and address non-conformance results according to workplace procedures
3. Finalise spirit handling activities	3.1 Shut down equipment safely according to workplace procedures 3.2 Collect, treat, dispose of or recycle draining waste according to workplace procedures and relevant legislation 3.3 Record workplace information to meet workplace requirements and relevant legislation

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"> <li>Interpret handling and storage information from a variety of workplace documents</li> </ul>
Writing	<ul style="list-style-type: none"> <li>Record data and present information in required format</li> </ul>
Numeracy	<ul style="list-style-type: none"> <li>Calculate numerical information relating to measurements, quantities and operational specifications</li> <li>Interpret symbols and numbers during monitoring of process</li> </ul>
Navigate the world of	<ul style="list-style-type: none"> <li>Apply workplace procedures and legislative responsibilities to</li> </ul>

Skill	Description
work	own role
Interact with others	<ul style="list-style-type: none"> <li>Use required communication mode to report operational information to relevant personnel</li> </ul>
Get the work done	<ul style="list-style-type: none"> <li>Plan, sequence and implement tasks required to achieve production requirements</li> <li>Respond to predictable routine problems, faults and out of specification issues and implements standard or logical solutions</li> </ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPCEL3001 Handle and store spirits	FDFCEL2012A Handle spirits	<p>Updated to meet Standards for Training Packages</p> <p>Unit code updated to AQF 3 to reflect complexity of competency</p> <p>Minor changes to Elements and Performance Criteria for clarity</p> <p>Prerequisites removed</p>	Equivalent unit

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# Assessment Requirements for FBPCEL3001 Handle and store spirits

## Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

## Performance Evidence

An individual demonstrating competency must satisfy all of the elements and performance criteria in this unit.

There must be evidence that the individual has handled and stored two different spirits, and demonstrated the following points for each spirit:

- accessing workplace information to identify spirit handling and storage requirements
- selecting, fitting and using personal protective equipment
- identifying hazards and promptly responding to risks
- selecting, setting up and operating equipment
- monitoring spirit handling activities and equipment to identify non-conformance results
- taking corrective action in response to non-conformance results
- sorting, collecting, treating, recycling or disposing of draining waste
- following equipment shut down procedures applying safe work practices for all spirit handling activities
- recording spirit handling and storage information.

In demonstrating all of the above points the individual must apply all workplace and legislative requirements relevant to handling and storing spirits.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- purpose and principles of spirit use in winemaking
- properties of different types of spirit
- spirit classifications
- role and requirements of legislation in the control of spirits and the importance of accurate measuring and recording requirements for all spirit handling processes

- spirit storage and security controls
- health and safety hazards and controls including:
  - hazardous substances used during handling and storage of spirits
  - emergency procedures
- workplace procedures and responsibility for:
  - sampling and testing procedures
  - storing spirits securely
  - reporting non-conformance results or equipment problems
  - responding to environmental issues
  - disposing of waste
  - shutting down equipment
  - record keeping.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - a wine operations workplace or an environment that accurately represents workplace conditions
- resources, equipment and materials:
  - personal protective equipment for handling and storing spirits
  - equipment for safe handling and production of spirits
  - spirits
  - system for recording and reporting information
- specifications:
  - workplace procedures for handling and storing spirits.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## FBPCEL3002 Operate the continuous clarification by separation (flotation) process

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

### Application

This unit of competency describes the skills and knowledge required to prepare for and operate the continuous clarification by separation (flotation) process in wine production.

The unit applies to individuals who work in cellar operations and take responsibility for their own work using discretion and judgement in the selection and use of available resources.

All work must be carried out to comply with workplace procedures, according to state/territory health and safety regulations, legislation and standards that apply to the workplace.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

### Pre-requisite Unit

Nil

### Unit Sector

Cellar Operations (CEL)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare the continuous clarification by separation (flotation)	1.1 Identify and confirm production requirements 1.2 Confirm availability of required materials and services to meet production requirements

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
process for operation	1.3 Confirm environmental guidelines and identify potential health and safety in the workplace hazards and controls according to workplace procedures 1.4 Select, fit and use personal protective equipment required for production 1.5 Prepare materials to meet production requirements 1.6 Check equipment to confirm readiness for use according to workplace procedures 1.7 Set the process to meet production requirements
2. Operate and monitor the continuous clarification by separation (flotation) process	2.1 Start up the flotation process according to workplace procedures 2.2 Monitor production process to confirm performance meets specifications 2.3 Identify and address non-conformance product, process and equipment according to workplace procedures
3. Shut down the continuous clarification by separation (flotation) process	3.1 Identify and implement appropriate shutdown procedures 3.2 Dismantle equipment safely and prepare for cleaning 3.3 Collect, treat and dispose of or recycle waste generated by both the process and cleaning procedures 3.4 Record workplace information according to workplace procedures

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"> <li>Interpret production and process information from a variety of workplace documents</li> </ul>
Writing	<ul style="list-style-type: none"> <li>Record data and present information in required format</li> </ul>
Numeracy	<ul style="list-style-type: none"> <li>Calculate numerical information relating to measurements, quantities and operational specifications</li> <li>Interpret symbols and numbers during monitoring of process</li> </ul>

Skill	Description
Navigate the world of work	<ul style="list-style-type: none"> <li>Apply workplace procedures and legislative responsibilities to own role</li> </ul>
Interact with others	<ul style="list-style-type: none"> <li>Use required communication mode to report operational information to relevant personnel</li> </ul>
Get the work done	<ul style="list-style-type: none"> <li>Plan, sequence and implement tasks required to achieve production requirements</li> <li>Respond to predictable routine problems, faults and out of specification issues and implements standard or logical solutions</li> </ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPCEL3002 Operate the continuous clarification by separation (flotation) process	FDFCEL3002A Operate the continuous clarification by separation (flotation) process	<p>Updated to meet Standards for Training Packages</p> <p>Minor changes to Elements and Performance Criteria for clarity</p> <p>Prerequisites removed</p>	Equivalent unit

## Links

Companion Volume Implementation Guides are found in VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## Assessment Requirements for FBPCEL3002 Operate the continuous clarification by separation (flotation) process

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

### Performance Evidence

An individual demonstrating competency must satisfy all of the elements and performance criteria in this unit.

There must be evidence that the individual has operated at least one continuous clarification by separation (flotation) process including:

- accessing workplace information to identify clarification requirements
- selecting, fitting and using appropriate personal protective equipment
- checking supply and status of materials before commencing clarification operation
- preparing and confirming status of equipment and services before commencing filtration process
- setting up and starting the filtration process
- monitoring the filtration process
- taking corrective action in response to non-conformance results
- shutting down the process after clarification operations are completed
- conducting work according to environmental and health and safety requirements.

### Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- purpose of continuous clarification by separation (flotation) process and the links between the process and other processes used in wine operations
- basic operating principles of separation (flotation) process equipment
- materials used in the clarification by separation (flotation) process
- main separation (flotation) techniques and how these techniques can affect the characteristics of the wine
- pectin negative level when:
  - adding sulphur



- cooling product
- adding pectin enzymes
- methods used to monitor the process
- common causes of non-conformance results for product, process and equipment and corrective action required including:
  - issues that can be rectified
  - issues that must be reported
- responsibilities for health and safety in the workplace including:
  - health and safety hazards associated with the clarification by separation (flotation) process
  - methods for controlling risks associated with health and safety hazards
- responsibilities for identifying and controlling environmental issues
- workplace procedures and responsibility for:
  - reporting problems
  - shutting down the process
  - cleaning
  - handling waste
  - recording required information.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - a wine operations workplace or an environment that accurately represents workplace conditions
- resources, equipment and materials:
  - personal protective equipment for clarification by separation (flotation) operations
  - equipment and materials for clarification by separation (flotation) process
- specifications:
  - work procedures for continuous clarification by separation (flotation) process.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## FBPCEL3003 Operate the concentration process

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0

### Application

This unit of competency describes the skills and knowledge required to operate and monitor a continuous centrifugal juice concentrator to produce juice products for wine making.

The unit applies to individuals who work in cellar operations and take responsibility for their own work using discretion and judgement in the selection and use of available resources.

All work must be carried out to comply with workplace procedures, according to state/territory health and safety, and food safety regulations, legislation and standards that apply to the workplace.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

### Pre-requisite Unit

Nil

### Unit Sector

Cellar Operations (CEL)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare the concentration process for operation	1.1 Identify and confirm production requirements 1.2 Confirm availability of required materials and services to meet production requirements 1.3 Confirm environmental guidelines and identify potential health

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	<p>and safety in the workplace hazards and controls in accordance with workplace procedures</p> <p>1.4 Select and fit personal protective equipment required for production</p> <p>1.5 Check equipment to confirm readiness for use according to workplace procedures</p> <p>1.6 Set the process to meet concentration requirements</p>
2. Operate and monitor the concentration process	<p>2.1 Start up the concentration process according to workplace procedures</p> <p>2.2 Monitor production process to confirm concentration meets specification</p> <p>2.3 Identify and address non-conformance product, process and equipment according to workplace procedures</p>
3. Shut down the concentration process	<p>3.1 Identify and implement appropriate shutdown procedures</p> <p>3.2 Dismantle equipment safely and prepare for cleaning</p> <p>3.3 Collect, treat and dispose of or recycle waste generated by both the concentration process and cleaning procedures</p> <p>3.4 Record workplace information according to workplace requirements</p>

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"> <li>Interpret production and process information from a variety of workplace documents</li> </ul>
Writing	<ul style="list-style-type: none"> <li>Record data and present information in required format</li> </ul>
Numeracy	<ul style="list-style-type: none"> <li>Calculate numerical information relating to measurements, quantities and operational specifications</li> <li>Interpret symbols and numbers during monitoring of process</li> </ul>

Skill	Description
Navigate the world of work	<ul style="list-style-type: none"> <li>Apply workplace procedures and legislative responsibilities to own role</li> </ul>
Interact with others	<ul style="list-style-type: none"> <li>Use required communication mode to report operational information to relevant personnel</li> </ul>
Get the work done	<ul style="list-style-type: none"> <li>Plan, sequence and implement tasks required to achieve production requirements</li> <li>Respond to predictable routine problems, faults and out of specification issues and implements standard or logical solutions</li> </ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPCEL3003 Operate the concentration process	FDFCEL3003A Operate the concentration process	<p>Updated to meet Standards for Training Packages</p> <p>Minor changes to Elements and Performance Criteria for clarity</p> <p>Prerequisites removed</p>	Equivalent unit

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# Assessment Requirements for FBPCEL3003 Operate the concentration process

## Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0

## Performance Evidence

An individual demonstrating competency must satisfy all of the elements and performance criteria in this unit.

There must be evidence that the individual has operated the concentration process and demonstrated the following at least once:

- accessing workplace information to identify concentration requirements
- identifying legislative and workplace requirements related to the concentration process
- selecting, fitting and using personal protective equipment
- confirming equipment status and condition
- selecting, setting up and operating the concentration process
- monitoring the process and equipment operation to identify non-conformance results
- taking corrective action in response to non-conformance results
- following equipment shutdown procedures
- preparing equipment for cleaning including draining and dismantling equipment, and removing waste either manually or by rinsing, in preparation for cleaning
- conducting work according to environmental and health and safety procedures.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- purpose and principles of concentration operation and the links between concentration and related processes
- stages and changes which occur during concentration operation
- effect of process stages on end product
- quality characteristics and uses of concentrated product
- main controls used in concentration process:
  - flow rates
  - operating vacuum

- operating temperatures
- cone rpm
- dilution and product loss
- common causes of variation and corrective action required
- routine shutdown and cleaning preparation requirements
- typical workplace hazards and controls
- procedures and responsibility for:
  - reporting problems
  - environmental issues and controls
  - waste handling requirements
  - recording requirements.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - a wine operations workplace or an environment that accurately represents workplace conditions
- resources, equipment and materials:
  - personal protective equipment required for the concentration process
  - concentration equipment and materials required for process
  - system for recording and reporting information
- specifications:
  - workplace procedures for concentration process.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## FBPCEL3004 Operate an earth filtration process

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

### Application

This unit of competency describes the skills and knowledge required to prepare for and operate an earth filtration process using a range of filter media.

The unit applies to individuals who work in a wine operations cellar environment and take responsibility for their own work using discretion and judgement in the selection and use of available resources.

All work must be carried out to comply with workplace procedures, according to state/territory health and safety, and food safety regulations, legislation and standards that apply to the workplace.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

### Pre-requisite Unit

Nil

### Unit Sector

Cellar Operations (CEL)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare the earth filtration process for operation	1.1 Identify job requirements 1.2 Confirm availability of required materials and services to meet production requirements

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	1.3 Confirm environmental guidelines and identify potential health and safety hazards and controls according to workplace procedures 1.4 Select and fit personal protective equipment relevant to the job requirements 1.5 Prepare materials to meet production requirements 1.6 Check equipment to confirm readiness for use according to workplace procedures 1.7 Set the earth filtration process to meet production requirements
2. Operate and monitor the earth filtration process	2.1 Start up the earth filtration process according to workplace procedures 2.2 Monitor process to confirm earth filtration meets specifications 2.3 Identify and address non-conformance of product, process and equipment according to workplace procedures
3. Shut down the earth filtration process	3.1 Identify and implement appropriate shutdown procedures 3.2 Dismantle equipment safely and prepare for cleaning 3.3 Collect, treat and dispose of or recycle waste generated by both the earth filtration process and cleaning procedures 3.4 Record workplace information according to workplace procedures and format

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"> <li>Comprehend instructions in workplace documents</li> </ul>
Writing	<ul style="list-style-type: none"> <li>Complete workplace documents in required format</li> </ul>
Numeracy	<ul style="list-style-type: none"> <li>Perform calculations relating to measurements, quantities and operational specifications</li> <li>Interpret symbols and numbers during monitoring of process</li> </ul>



Skill	Description
Navigate the world of work	<ul style="list-style-type: none"><li>• Apply workplace procedures and legislative responsibilities to own role</li></ul>
Interact with others	<ul style="list-style-type: none"><li>• Use required communication mode to report operational information to relevant personnel</li></ul>
Get the work done	<ul style="list-style-type: none"><li>• Plan, sequence and implement tasks according to set routines and procedures</li><li>• Problem solve issues as they arise</li></ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPCEL3004 Operate an earth filtration process	FDFCEL2013A Operate the pressure leaf filtration process	Updated to meet Standards for Training Packages  Minor changes to Elements and Performance Criteria for clarity  Change of title to reflect current Industry terminology  Prerequisites removed  Unit code updated to AQF 3 to reflect complexity of competency	Equivalent unit

## Links

Companion Volume Implementation Guides are found in VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# Assessment Requirements for FBPCEL3004 Operate an earth filtration process

## Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

## Performance Evidence

An individual demonstrating competency must satisfy all of the elements and performance criteria in this unit.

There must be evidence that the individual has demonstrated at least one earth filtration process, including:

- accessing workplace information to identify earth filtration processing requirements
- selecting and fitting appropriate personal protective equipment (PPE)
- checking supply and status of materials before commencing earth filtration operation
- preparing and confirming status of equipment and services before commencing earth filtration process
- setting up and starting the earth filtration process
- monitoring the earth filtration process
- taking corrective action in response to non-conformance results
- shutting down the process after earth filtration operations are completed
- conducting work according to environmental and health and safety requirements in the workplace.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- purpose of the earth filtration process and the links between earth filtration and other processes used in wine operations
- use of filter media:
  - diatomaceous earth (DE)
  - perlite
  - cellulose
- materials used in the earth filtration process including:

- preparation requirements and effect of variation on the earth filtration process
- main earth filtration techniques and how these techniques can affect the characteristics of the wine
- methods used to monitor the process
- common causes of non-conformance results for product, process and equipment and corrective action required including:
  - issues that can be rectified
  - issues that must be reported
- responsibilities for health and safety in the workplace including:
  - health and safety hazards associated with the earth filtration process
  - methods for controlling risks associated with health and safety hazards
- responsibilities for identifying and controlling environmental issues
- workplace procedures and responsibility for:
  - reporting problems
  - shutting down the process
  - cleaning
  - handling waste
  - recording required information.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - a wine operations workplace or an environment that accurately represents workplace conditions
- resources, equipment and materials:
  - PPE for earth filtration operations
  - equipment and materials for earth filtration process
  - products for earth filtration process
  - system for recording and reporting information
- specifications:
  - workplace procedures for earth filtration operations.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## FBPCEL3005 Operate the pressing process

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

### Application

This unit of competency describes the skills and knowledge required to prepare and operate pressing equipment in winemaking. It may involve work in confined spaces.

The unit applies to individuals who work in winemaking operations and take responsibility for their own work using discretion and judgement in the selection and use of available resources.

All work must be carried out to comply with workplace procedures, according to state/territory health and safety, and food safety regulations, legislation and standards that apply to the workplace.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

### Pre-requisite Unit

Nil

### Unit Sector

Cellar Operations (CEL)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare the pressing process for operation	1.1 Identify and confirm production requirements 1.2 Confirm availability of required materials and services to meet production requirements 1.3 Confirm environmental guidelines and identify potential health

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	<p>and safety hazards and controls according to workplace procedures</p> <p>1.4 Select and fit personal protective equipment required for production</p> <p>1.5 Prepare materials to meet production requirements</p> <p>1.6 Check equipment to confirm readiness for use according to workplace procedures</p> <p>1.7 Set the process to meet production requirements</p>
2. Operate and monitor the pressing process	<p>2.1 Start up the pressing process according to workplace procedures</p> <p>2.2 Monitor production process to confirm pressed product meets specifications</p> <p>2.3 Identify and address non-conformances in product, process and equipment according to workplace procedures</p>
3. Shut down the pressing process	<p>3.1 Identify and implement appropriate shutdown procedures</p> <p>3.2 Dismantle equipment safely and prepare for cleaning</p> <p>3.3 Collect, treat and dispose of or recycle waste generated by both the pressing process and cleaning procedures</p> <p>3.4 Record workplace information according to workplace procedures</p>

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"> <li>Comprehend instructions in workplace documents</li> </ul>
Writing	<ul style="list-style-type: none"> <li>Complete workplace documents in required format</li> </ul>
Numeracy	<ul style="list-style-type: none"> <li>Perform calculations required to prepare production materials for the process</li> <li>Monitor supply and flow of materials to and from the process</li> </ul>
Navigate the world of	<ul style="list-style-type: none"> <li>Apply workplace procedures and legislative responsibilities to</li> </ul>

Skill	Description
work	own role
Interact with others	<ul style="list-style-type: none"><li>• Use required communication mode to report operational information to relevant personnel</li></ul>
Get the work done	<ul style="list-style-type: none"><li>• Plan, sequence and implement tasks according to set routines and procedures</li><li>• Respond to routine problems using workplace instructions and procedures</li></ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPCEL3005 Operate the pressing process	FDFCEL2005A Operate the pressing process	Updated to meet Standards for Training Packages  Minor changes to Elements and Performance Criteria for clarity  Prerequisites removed  Unit code updated to AQF3 to reflect complexity of competency	Equivalent unit

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# Assessment Requirements for FBPCEL3005 Operate the pressing process

## Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

## Performance Evidence

An individual demonstrating competency must satisfy all of the elements and performance criteria in this unit.

There must be evidence that the individual has operated at least one pressing process, including:

- accessing workplace information to identify pressing requirements
- selecting and fitting appropriate personal protective equipment (PPE)
- checking supply and status of materials before commencing pressing operation
- preparing and confirming status of equipment and services before commencing pressing process
- setting up and starting the pressing process
- monitoring the pressing process
- taking corrective action in response to non-conformance results
- shutting down the process after pressing operations are completed
- conducting work according to environmental and health and safety requirements in the workplace.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- purpose of the pressing process and the links between pressing and other processes used in wine operations
- basic operating principles of pressing equipment
- materials used in the pressing process including:
  - grape varieties, whole fruit bunches and common additives
  - preparation requirements and effect of variation on the pressing process

- main pressing techniques and how these techniques that can affect the characteristics of the wine:
  - degree of pressing and pressure
  - blending and separating free run juice from first and later pressings
  - press type
- methods used to monitor the process
- common causes of non-conformance results for product, process and equipment and corrective action required including:
  - issues that can be rectified
  - issues that must be reported
- responsibilities for health and safety in the workplace including:
  - health and safety hazards associated with the pressing process
  - methods for controlling risks associated with health and safety hazards, including confined space entry
- responsibilities for identifying and controlling environmental issues
- workplace procedures and responsibility for:
  - reporting problems
  - shutting down the process
  - cleaning
  - handling waste
  - recording required information.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - a wine operations workplace or an environment that accurately represents workplace conditions
- resources, equipment and materials:
  - PPE for pressing operations
  - equipment and materials for pressing process
  - system for recording and reporting information
- specifications:
  - workplace procedures for pressing operations.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>





## FBPCEL3006 Operate the fine filtration process

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

### Application

This unit of competency describes the skills and knowledge required to prepare and operate the fine filtration process and equipment to achieve pre-set specifications for wine or juice products.

The unit applies to individuals who work in cellar operations and take responsibility for their own work using discretion and judgement in the selection and use of available resources.

All work must be carried out to comply with workplace procedures, according to state/territory health and safety, and food safety regulations, legislation and standards that apply to the workplace.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

### Pre-requisite Unit

Nil

### Unit Sector

Cellar Operations (CEL)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare the fine filtration process for operation	1.1 Identify and confirm production requirements 1.2 Confirm availability and prepare services, product and materials to meet production requirements

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	1.3 Confirm environmental guidelines and identify potential health and safety in the workplace hazards and controls according to workplace procedures 1.4 Select, fit and use personal protective equipment relevant to the job role 1.5 Check the integration of flow path according to workplace procedures 1.6 Check equipment and confirm readiness for use according to workplace procedures 1.7 Set the process to meet filtration requirements
2. Operate and monitor the fine filtration process	2.1 Start up the fine filtration process according to workplace procedures 2.2 Monitor filtration process to confirm filtered product meets specifications 2.3 Identify and address non-conformance of product, process and equipment
3. Shut down the fine filtration process	3.1 Identify and implement appropriate shutdown procedures 3.2 Dismantle equipment safely and prepare for cleaning 3.3 Collect, treat and dispose of or recycle waste generated by both the filtration process and cleaning procedures 3.4 Record workplace information according to workplace requirements

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"> <li>Interpret production and process information from a variety of workplace documents</li> </ul>
Writing	<ul style="list-style-type: none"> <li>Record data and present information in required format</li> </ul>

Skill	Description
Numeracy	<ul style="list-style-type: none"> <li>Calculate numerical information relating to measurements, quantities and operational specifications</li> <li>Interpret symbols and numbers during monitoring of process</li> </ul>
Navigate the world of work	<ul style="list-style-type: none"> <li>Apply workplace procedures and legislative responsibilities to own role</li> </ul>
Interact with others	<ul style="list-style-type: none"> <li>Use required communication mode to report operational information to relevant personnel</li> </ul>
Get the work done	<ul style="list-style-type: none"> <li>Plan, sequence and implement tasks required to achieve production requirements</li> <li>Respond to predictable routine problems, faults and out of specification issues and implements standard or logical solutions</li> </ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPCEL3006 Operate the fine filtration process	FDFCEL2010A Operate the fine filtration process	<p>Updated to meet Standards for Training Packages</p> <p>Minor changes to Elements and Performance Criteria for clarity</p> <p>Unit code updated to AQF3 to reflect complexity of competency</p>	Equivalent unit

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# Assessment Requirements for FBPCEL3006 Operate the fine filtration process

## Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

## Performance Evidence

An individual demonstrating competency must satisfy all of the elements and performance criteria in this unit.

There must be evidence that the individual has operated the fine filtration process on at least two occasions, including:

- accessing and interpreting workplace information to identify filtration requirements
- selecting, fitting and using personal protective equipment
- confirming supply of necessary product and services
- preparing product including pre-filtering product to meet turbidity parameters of membrane
- confirming filtration equipment status and condition
- setting up and starting up the filtration process
- monitoring the process and equipment operation to identify non-conformance results
- taking corrective action in response to non-conformance results
- sorting, collecting, treating, recycling or disposing of waste
- following equipment shut down procedures
- preparing equipment for cleaning including draining and dismantling equipment
- conducting work according to environmental and health and safety requirements.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- purpose and principles of fine filtration and the links between filtration and related processes
- quality characteristics and uses of fine filtration product
- types and application of manual and computer controlled processes
- product preparation requirements and effect of variation on the process

- main methods used in fine filtration
- filtration equipment and instrumentation components, purpose and operation
- significance and method of monitoring the process
- common causes of variation and corrective action required
- routine shutdown and cleaning preparation requirements
- health and safety hazards and controls relating to filtration operations
- workplace procedures relating to filtration operations and responsibility for:
  - reporting problems
  - waste handling requirements
  - environmental issues and controls
  - recording information.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - a wine operations workplace or an environment that accurately represents workplace conditions
- resources, equipment and materials:
  - personal protective equipment for filtration operations
  - filtration equipment and membranes, filters and related materials required for operations
  - product for filtration
  - system for recording and reporting information
- specifications:
  - workplace procedures for filtration operations.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## FBPCEL3007 Operate clarification by separation (centrifugation) process

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0

### Application

This unit of competency describes the skills and knowledge required to prepare for and operate the clarification by separation (centrifugation) process.

The unit applies to individuals who work in cellar operations and who take responsibility for their own work using discretion and judgement in the selection and use of available resources.

All work must be carried out to comply with workplace procedures, according to state/territory health and safety, and food safety regulations, legislation and standards that apply to the workplace.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

### Pre-requisite Unit

Nil

### Unit Sector

Cellar Operations (CEL)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare the clarification by separation (centrifugation) process	1.1 Identify and confirm production requirements 1.2 Confirm availability of required materials and services to meet production requirements

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
for operation	1.3 Confirm environmental guidelines and identify potential health and safety in the workplace hazards and controls according to workplace procedures 1.4 Select, fit and use personal protective equipment required for production 1.5 Prepare materials to meet production requirements 1.6 Check equipment to confirm readiness for use according to workplace procedures 1.7 Set the process to meet production requirements
2. Operate and monitor the clarification by separation (centrifugation) process	2.1 Start up the centrifugation process safely according to workplace procedures 2.2 Monitor production process to confirm clarified product meets specifications 2.3 Identify and address non-conformance product, process and equipment according to workplace procedures
3. Shut down the clarification by separation (centrifugation) process	3.1 Identify and implement appropriate shutdown procedures 3.2 Dismantle equipment safely and prepare for cleaning 3.3 Collect, treat and dispose of or recycle waste generated by both the centrifugation process and cleaning procedures 3.4 Record workplace information according to workplace procedures

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"> <li>Interpret production and process information from a variety of workplace documents</li> </ul>
Writing	<ul style="list-style-type: none"> <li>Record data and present information in required format</li> </ul>
Numeracy	<ul style="list-style-type: none"> <li>Calculate numerical information relating to measurements, quantities and operational specifications</li> </ul>



Skill	Description
	<ul style="list-style-type: none"> <li>Interpret symbols and numbers during monitoring of process</li> </ul>
Navigate the world of work	<ul style="list-style-type: none"> <li>Apply workplace procedures and legislative responsibilities to own role</li> </ul>
Interact with others	<ul style="list-style-type: none"> <li>Use required communication mode to report operational information to relevant personnel</li> </ul>
Get the work done	<ul style="list-style-type: none"> <li>Plan, sequence and implement tasks required to achieve production requirements</li> <li>Respond to predictable routine problems, faults and out of specification issues and implements standard or logical solutions</li> </ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPCEL3007 Operate clarification by separation (centrifugation) process	FDFCEL2006A Operate clarification by separation (centrifugation) process	<p>Updated to meet Standards for Training Packages</p> <p>Minor changes to Elements and Performance Criteria for clarity</p> <p>Prerequisites removed</p> <p>Unit code updated to AQF3 to reflect complexity of competency</p>	Equivalent unit

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## Assessment Requirements for FBPCEL3007 Operate clarification by separation (centrifugation) process

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0

### Performance Evidence

An individual demonstrating competency must satisfy all of the elements and performance criteria in this unit.

There must be evidence that the individual has operated at least one separation process, including:

- accessing workplace information to identify clarification requirements
- selecting, fitting and using appropriate personal protective equipment
- checking supply and status of materials before commencing separation (centrifugation) operation
- preparing and confirming status of equipment and services before commencing separation (centrifugation) process
- setting up and starting the separation (centrifugation) process
- monitoring the separation (centrifugation) process
- taking corrective action in response to non-conformance results
- shutting down the process after separation (centrifugation) operations are completed
- conducting work according to environmental and workplace health and safety requirements.

### Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- purpose of the clarification by separation (centrifugation) and the links between clarification by separation and other processes used in wine operations
- basic operating principles of separation (centrifugation) equipment
- stages and changes which occur during clarification by separation (centrifugation)
- materials used in the separation (centrifugation) process

- main separation (centrifugation) techniques and how these techniques can affect the characteristics of the wine
- methods used to monitor the process
- common causes of non-conformance results for product, process and equipment and corrective action required including:
  - issues that can be rectified
  - issues that must be reported
- responsibilities for health and safety in the workplace including:
  - health and safety hazards associated with the centrifugation process
  - methods for controlling risks associated with work health and safety hazards, including confined space entry
- responsibilities for identifying and controlling environmental issues
- workplace procedures and responsibility for:
  - reporting problems
  - shutting down the process
  - cleaning
  - handling waste
  - recording required information.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - a wine operations workplace or an environment that accurately represents workplace conditions
- resources, equipment and materials:
  - personal protective equipment for clarification by separation (centrifugation) operations
  - equipment and materials for clarification by separation (centrifugation) process
  - system for recording and reporting information
- specifications:
  - workplace procedures for clarification by separation (centrifugation) operations.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# FBPCEL3008 Operate the rotary vacuum filtration process

## Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

## Application

This unit of competency describes the skills and knowledge required to prepare and operate the rotary vacuum filtration process to filter juice product or wine.

The unit applies to individuals who work in winemaking operations and take responsibility for their own work using discretion and judgement in the selection and use of available resources.

All work must be carried out to comply with workplace procedures, according to state/territory health and safety, and food safety regulations, legislation and standards that apply to the workplace.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

## Pre-requisite Unit

Nil

## Unit Sector

Cellar Operations (CEL)

## Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare the rotary vacuum filtration process for operation	1.1 Identify and confirm production requirements 1.2 Confirm availability and prepare product and materials to meet filtration requirements 1.3 Confirm environmental guidelines and identify potential health

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	<p>and safety in the workplace hazards and controls in accordance with workplace procedures</p> <p>1.4 Select, fit and use personal protective equipment according to job requirements</p> <p>1.5 Confirm availability and prepare product and materials are available and ready for operation</p> <p>1.6 Check equipment to confirm readiness for use according to workplace procedures</p> <p>1.7 Set the process to meet filtration requirements and job requirements</p>
2. Operate and monitor the rotary vacuum filtration process	<p>2.1 Start up the rotary vacuum filtration process according to workplace procedures</p> <p>2.2 Monitor rotary vacuum filtration process to confirm the filtration meets specification</p> <p>2.3 Identify and address non-conformance product, process and equipment performance</p>
3. Shut down the rotary vacuum filtration process	<p>3.1 Identify and implement appropriate shutdown procedures</p> <p>3.2 Dismantle equipment safely and prepare for cleaning</p> <p>3.3 Collect, treat and dispose of or recycle waste generated by both the rotary vacuum filtration process and cleaning procedures</p> <p>3.4 Record workplace information according to workplace procedures</p>

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"> <li>Comprehend instructions in workplace documents</li> </ul>
Writing	<ul style="list-style-type: none"> <li>Complete workplace documents in required format</li> </ul>
Numeracy	<ul style="list-style-type: none"> <li>Perform calculations relating to measurements, quantities and operational specifications</li> </ul>

Skill	Description
	<ul style="list-style-type: none"> <li>Interpret symbols and numbers during monitoring of process</li> </ul>
Navigate the world of work	<ul style="list-style-type: none"> <li>Apply workplace procedures and legislative responsibilities to own role</li> </ul>
Interact with others	<ul style="list-style-type: none"> <li>Use required communication mode to report operational information to relevant personnel</li> </ul>
Get the work done	<ul style="list-style-type: none"> <li>Plan, sequence and implement tasks according to set routines and procedures</li> <li>Problem solve issues as they arise</li> </ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPCEL3008 Operate the rotary vacuum filtration process	FDFCEL2014A Operate the rotary vacuum filtration process	<p>Updated to meet Standards for Training Packages</p> <p>Minor changes to Elements and Performance Criteria for clarity</p> <p>Prerequisites removed</p> <p>Unit code updated to AQF3 to reflect complexity of competency</p>	Equivalent unit

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## Assessment Requirements for FBPCEL3008 Operate the rotary vacuum filtration process

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

### Performance Evidence

An individual demonstrating competency must satisfy all of the elements and performance criteria in this unit.

There must be evidence that the individual has demonstrated the following on at least one occasion:

- accessing workplace information to identify filtration requirements
- selecting, fitting and using personal protective equipment
- checking supply and status of materials before commencing filtration process
- preparing and confirming status of equipment before commencing rotary vacuum filtration process including checking the screen or cloth condition and receiveal vessels
- setting up and starting up the rotary vacuum filtration process
- monitoring rotary vacuum filtration process
- taking corrective action in response to non-conformance results
- shutting down the process after filtration operations are completed
- conducting work according to environmental and health and safety requirements.

### Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- purpose and principles of rotary vacuum filtration and links between rotary vacuum filtration and other process in cellar operations
- stages and changes which occur during rotary vacuum filtration and the effect of process stages on the end product
- use of filter media:
  - diatomite
  - perlite
  - cellulose

- polyethylene
- methods used to monitor the filtration process and common causes of non-conformance and corrective action required
- routine shutdown preparation requirements
- health and safety hazards and controls in the workplace
- workplace procedures and responsibility for:
  - reporting problems
  - environmental issues and controls
  - waste handling requirements
  - recording requirements.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - a wine operations workplace or an environment that accurately represents workplace conditions
- resources, equipment and materials:
  - personal protective equipment for rotary vacuum filtration operations
  - equipment and materials for rotary vacuum filtration process
  - products for rotary vacuum filtration
  - system for recording and reporting information
- specifications:
  - workplace procedures for rotary vacuum filtration operations.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>



## FBPCEL3009 Operate the crossflow filtration process

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0

### Application

This unit of competency describes the skills and knowledge required to operate crossflow filtration within wine cellar operations.

The unit applies to individuals who take responsibility for their own work using discretion and judgement in the selection and use of available resources.

All work must be carried out to comply with workplace procedures, according to state/territory health and safety, and food safety regulations, legislation and standards that apply to the workplace.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

### Pre-requisite Unit

Nil

### Unit Sector

Cellar Operations (CEL)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare for crossflow filtration operations	1.1 Identify job requirements 1.2 Confirm availability of required materials and services to meet production requirements 1.3 Confirm environmental guidelines and identify potential health

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	<p>and safety in the workplace hazards and controls according to workplace procedures</p> <p>1.4 Select, fit and use personal protective equipment relevant to the job requirements</p> <p>1.5 Prepare materials to meet production requirements</p> <p>1.6 Check equipment to confirm readiness for use according to workplace procedures</p> <p>1.7 Set the crossflow filtration process to meet production requirements</p>
2. Operate and monitor the crossflow filtration	<p>2.1 Start up the crossflow filtration process according to workplace procedures</p> <p>2.2 Monitor process confirm crossflow filtration meets specifications</p> <p>2.3 Identify and address non-conformance of product, process and equipment according to workplace procedures</p>
3. Shut down the crossflow operation	<p>3.1 Identify and implement appropriate shutdown procedures</p> <p>3.2 Dismantle equipment safely and prepare for cleaning</p> <p>3.3 Collect, treat and dispose of or recycle waste generated by both the crossflow filtration process and cleaning procedures</p> <p>3.4 Record information according to workplace procedures</p>

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"> <li>Comprehend instructions in workplace documents</li> </ul>
Writing	<ul style="list-style-type: none"> <li>Complete workplace documents in required format</li> </ul>
Numeracy	<ul style="list-style-type: none"> <li>Perform calculations relating to measurements, quantities and operational specifications</li> <li>Interpret symbols and numbers during monitoring of process</li> </ul>

Skill	Description
Navigate the world of work	<ul style="list-style-type: none"><li>• Apply workplace procedures and legislative responsibilities to own role</li></ul>
Interact with others	<ul style="list-style-type: none"><li>• Use required communication mode to report operational information to relevant personnel</li></ul>
Get the work done	<ul style="list-style-type: none"><li>• Plan, sequence and implement tasks according to set routines and procedures</li><li>• Problem solve issues as they arise</li></ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPCEL3009 Operate the crossflow filtration process	Not applicable	New unit to meet industry requirements	No equivalent unit

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## Assessment Requirements for FBPCEL3009 Operate the crossflow filtration process

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0

### Performance Evidence

An individual demonstrating competency must satisfy all of the elements and performance criteria in this unit.

There must be evidence that the individual has demonstrated at least one crossflow filtration process including:

- accessing workplace information to identify crossflow filtration processing requirements
- selecting and fitting appropriate personal protective equipment
- checking supply and status of materials before commencing crossflow filtration process
- preparing and confirming status of equipment and services before commencing crossflow filtration process
- setting up and starting the crossflow filtration process
- monitoring the crossflow process, including pressures
- taking corrective action in response to non-conformance results
- shutting down the process after crossflow filtration operations are completed
- conducting work according to environmental and workplace health and safety requirements.

### Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- purpose of the crossflow filtration process and the links between filtration and other processes used in wine operations
- basic operating principles of crossflow filtration equipment
- types of membranes used in filtration processes and their application in wine making
- differences between crossflow filtration and other types of filtration processes used in wine operations

- main filtration techniques and how these techniques can affect the characteristics of the wine
- main considerations for the crossflow filtration process:
  - flow rate calculation
  - pressure monitoring, including differential and transmembrane
  - backflushing
  - alternating product flow
  - process flow disruptions
  - final concentration, including removal of sediments
  - clean-in-place
- common causes of non-conformance results for product, process and equipment and corrective action required including:
  - issues that can be rectified
  - issues that must be reported
- responsibilities for health and safety in the workplace including:
  - health and safety hazards associated with the crossflow filtration process
  - methods for controlling risks associated with work health and safety hazards
- responsibilities for identifying and controlling environmental issues
- workplace procedures and responsibility for:
  - reporting problems
  - shutting down the process
  - cleaning
  - handling waste
  - recording information.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - a wine operations workplace or an environment that accurately represents workplace conditions
- resources, equipment and materials:
  - personal protective equipment for crossflow filtration operations
  - equipment and materials required for crossflow filtration process
  - system for recording and reporting information
- specifications:
  - workplace procedures for crossflow filtration process.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## FBPCEL3010 Operate the decanter process

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0

### Application

This unit of competency describes the skills and knowledge required to operate and monitor the decanter process in wine cellar operations.

The unit applies to individuals who take responsibility for their own work using discretion and judgement in the selection and use of available resources.

All work must be carried out to comply with workplace procedures, according to state/territory health and safety, and food safety regulations, legislation and standards that apply to the workplace.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

### Pre-requisite Unit

Nil

### Unit Sector

Cellar Operations (CEL)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare the decanter process for operation	1.1 Identify and confirm production requirements 1.2 Confirm availability and prepare product to meet decanter requirements 1.3 Confirm environmental guidelines and identify potential health

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	<p>and safety hazards and controls according to workplace procedures</p> <p>1.4 Select and fit personal protective clothing and equipment required for production</p> <p>1.5 Check equipment to confirm readiness for use according to workplace procedures</p> <p>1.6 Set the process to meet decanter requirements</p>
2. Operate and monitor the decanter process	<p>2.1 Start up the decanter process according to workplace procedures</p> <p>2.2 Monitor decanting process to confirm performance is maintained within specification</p> <p>2.3 Identify and address non-conformance of product, process and equipment according to workplace procedures</p>
3. Shut down the decanter process	<p>3.1 Identify and implement appropriate shutdown procedures</p> <p>3.2 Dismantle equipment safely and prepare for cleaning</p> <p>3.3 Collect, treat and dispose of or recycle waste generated by both the process and cleaning procedures</p> <p>3.4 Record workplace information according to workplace requirements</p>

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"> <li>Interpret information from a variety of workplace documents</li> </ul>
Writing	<ul style="list-style-type: none"> <li>Produce workplace documents in required format</li> </ul>
Numeracy	<ul style="list-style-type: none"> <li>Perform calculations relating to measurements, quantities and operational specifications</li> <li>Interpret symbols and numbers during monitoring of process</li> </ul>
Navigate the world of work	<ul style="list-style-type: none"> <li>Apply workplace procedures and legislative responsibilities to own role</li> </ul>



Skill	Description
Interact with others	<ul style="list-style-type: none"><li>• Use required communication mode to report operational information to relevant personnel</li></ul>
Get the work done	<ul style="list-style-type: none"><li>• Plan and organise tasks required to achieve job requirements</li><li>• Problem solve as issues arise</li></ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPCEL3010 Operate the decanter process	Not applicable	New unit to meet industry requirements	No equivalent unit

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# Assessment Requirements for FBPCEL3010 Operate the decanter process

## Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0

## Performance Evidence

An individual demonstrating competency must satisfy all of the elements and performance criteria in this unit.

There must be evidence that the individual has demonstrated the following at least once:

- accessing workplace information to identify decanter requirements
- selecting, fitting and using personal protective equipment (PPE)
- confirming supply of necessary product and services
- confirming equipment status and condition
- setting up and starting up the decanter process
- monitoring the process and equipment operation to identify non-conformance results
- taking corrective action in response to non-conformance results
- following equipment shutdown procedures
- preparing equipment for cleaning including draining and dismantling equipment, and removing waste either manually or by rinsing, in preparation for cleaning and sanitation
- conducting work according to environmental and health and safety requirements.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- purpose and principles of decanter operation
- links between decanter and related processes
- stages and changes which occur during decanter operation
- effect of process stages on end product
- quality characteristics and uses of decanter product
- product preparation requirements and effect of variation on the process
- main methods used in decanter process:
  - continuous processing
  - destemmer/crusher

- decanter bowl
- decanter pomace
- multiple applications
- decanter equipment and instrumentation components, purpose and operation
- significance and method of monitoring the process
- common causes of variation and corrective action required
- routine shutdown and cleaning preparation requirements
- health and safety hazards and controls
- procedures and responsibility for:
  - reporting problems
  - environmental issues and controls
  - waste handling requirements
  - recording requirements.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - a wine operations workplace or an environment that accurately represents workplace conditions
- resources, equipment and materials:
  - PPE for decanter processing
  - decanter equipment and materials required for process
  - system for recording and reporting information
- specifications:
  - workplace procedures for decanter process.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## FBPCEL3011 Operate the reverse osmosis process

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0

### Application

This unit of competency describes the skills and knowledge required to operate the reverse osmosis process in wine cellar operations.

The unit applies to individuals who take responsibility for their own work using discretion and judgement in the selection and use of available resources.

All work must be carried out to comply with workplace procedures, according to state/territory health and safety, and food safety regulations, legislation and standards that apply to the workplace.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

### Pre-requisite Unit

Nil

### Unit Sector

Cellar Operations (CEL)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare the reverse osmosis process for operation	1.1 Identify and confirm production requirements 1.2 Confirm availability and prepare product to meet reverse osmosis requirements 1.3 Confirm environmental guidelines and identify potential health

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	<p>and safety in the workplace hazards and controls in accordance with workplace procedures</p> <p>1.4 Select, fit and use personal protective equipment required for production</p> <p>1.5 Check equipment and confirm readiness for use according to workplace procedures</p> <p>1.6 Set the process to meet reverse osmosis requirements</p>
2. Operate and monitor the reverse osmosis process	<p>2.1 Start up the reverse osmosis process according to workplace procedures</p> <p>2.2 Monitor osmosis process to confirm performance is maintained within specification</p> <p>2.3 Identify and address non-conformance product, process and equipment performance according to workplace procedures</p>
3. Shut down the reverse osmosis process	<p>3.1 Identify and implement appropriate shutdown procedures</p> <p>3.2 Dismantle equipment safely and prepare for cleaning</p> <p>3.3 Collect, treat and dispose of or recycle waste generated by both the process and cleaning procedures</p> <p>3.4 Record workplace information according to workplace requirements</p>

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"> <li>Interpret information from a variety of workplace documents</li> </ul>
Writing	<ul style="list-style-type: none"> <li>Produce workplace documents in required format</li> </ul>
Numeracy	<ul style="list-style-type: none"> <li>Perform calculations relating to measurements, quantities and operational specifications</li> <li>Interpret symbols and numbers during monitoring of process</li> </ul>

Skill	Description
Navigate the world of work	<ul style="list-style-type: none"><li>• Comply with workplace procedures and legislative responsibilities relevant to own role</li></ul>
Interact with others	<ul style="list-style-type: none"><li>• Use required communication mode to report operational information to relevant personnel</li></ul>
Get the work done	<ul style="list-style-type: none"><li>• Plan, sequence and implement tasks according to set routines and procedures</li><li>• Respond to routine problems using workplace instructions and procedures</li></ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPCEL3011 Operate the reverse osmosis process	Not applicable	New unit to meet industry requirements	No equivalent unit

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# Assessment Requirements for FBPCEL3011 Operate the reverse osmosis process

## Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0

## Performance Evidence

An individual demonstrating competency must satisfy all of the elements and performance criteria in this unit.

There must be evidence that the individual has operated a reverse osmosis process at least once, demonstrating:

- accessing workplace information to identify reverse osmosis requirements
- selecting, fitting and using personal protective equipment
- confirming supply of necessary product and services
- confirming equipment status and condition
- setting up and starting up the reverse osmosis process
- monitoring the process and equipment operation to identify non-conformance results
- taking corrective action in response to non-conformance results
- following equipment shutdown procedures
- preparing equipment for cleaning including draining and dismantling equipment, and removing waste either manually or by rinsing, in preparation for cleaning and sanitation
- conducting work according to environmental and health and safety requirements.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- purpose and principles of reverse osmosis operation
- links between reverse osmosis and related processes
- stages and changes which occur during reverse osmosis operation
- effect of process stages on end product
- quality characteristics and uses of reverse osmosis product
- product preparation requirements and effect of variation on the process
- main methods used in reverse osmosis process, including:
  - sediment filter

- activated carbon
- reverse osmosis filter
- alcohol reduction
- re blending product
- reverse osmosis equipment and instrumentation components, purpose and operation
- significance and method of monitoring control points within the process
- common causes of variation and corrective action required
- routine shutdown and cleaning preparation requirements
- health and safety hazards and controls
- procedures and responsibility for:
  - reporting problems
  - environmental issues and controls
  - waste handling requirements
  - recording requirements.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - a wine operations workplace or an environment that accurately represents workplace conditions
- resources, equipment and materials:
  - personal protective equipment for reverse osmosis
  - reverse osmosis equipment and materials required for process
  - system for recording and reporting information
- specifications:
  - workplace procedures for reverse osmosis process.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>



## FBPCEL3012 Perform de-aromatising, de-alcoholising or de-sulphuring operations

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

### Application

This unit of competency describes the skills and knowledge required to prepare and operate de-aromatising, de-alcoholising or de-sulphuring processes in winemaking. The unit applies to individuals who work in cellar operations and take responsibility for their own work using discretion and judgement in the selection and use of available resources.

All work must be carried out to comply with workplace procedures, according to state/territory health and safety, and food safety regulations, legislation and standards that apply to the workplace.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

### Pre-requisite Unit

Nil

### Unit Sector

Cellar Operations (CEL)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare the de-aromatising, de-alcoholising or de-sulphuring process for	1.1 Identify and confirm production requirements 1.2 Confirm availability of required materials and services to meet production requirements

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
operation	1.3 Confirm environmental guidelines and identify potential health and safety in the workplace hazards and controls according to workplace procedures 1.4 Select, fit and use personal protective equipment required for production 1.5 Prepare materials to meet production requirements 1.6 Check equipment to confirm readiness for use according to workplace procedures 1.7 Set the process to meet production requirements
2. Operate and monitor the de-aromatising, de-alcoholising or de-sulphuring process	2.1 Start up the de-aromatising, de-alcoholising or de-sulphuring process safely according to workplace procedures 2.2 Monitor production process to confirm de-aromatised, de-alcoholised or de-sulphurised product meets specifications 2.3 Identify and address non-conformance of product, process and equipment according to workplace procedures
3. Shut down the de-aromatising, de-alcoholising or de-sulphuring process	3.1 Identify and implement appropriate shutdown procedures 3.2 Dismantle equipment safely and prepare for cleaning 3.3 Collect, treat and dispose of or recycle waste generated by both the de-aromatising, de-alcoholising or de-sulphuring process and cleaning procedures 3.4 Record workplace information according to workplace procedures

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"> <li>Interpret production and process information from a variety of workplace documents</li> </ul>
Writing	<ul style="list-style-type: none"> <li>Record data and present information in required format</li> </ul>
Numeracy	<ul style="list-style-type: none"> <li>Calculate numerical information relating to measurements,</li> </ul>

Skill	Description
	quantities and operational specifications <ul style="list-style-type: none"> <li>Interpret symbols and numbers during monitoring of process</li> </ul>
Navigate the world of work	<ul style="list-style-type: none"> <li>Apply workplace procedures and legislative responsibilities to own role</li> </ul>
Interact with others	<ul style="list-style-type: none"> <li>Use required communication mode to report operational information to relevant personnel</li> </ul>
Get the work done	<ul style="list-style-type: none"> <li>Plan, sequence and implement tasks required to achieve production requirements</li> <li>Respond to predictable routine problems, faults and out of specification issues and implements standard or logical solutions</li> </ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPCEL3012 Perform de-aromatising, de-alcoholising or de-sulphuring operations	FDFCEL3004A Perform de-aromatising, de-alcoholising or de-sulphuring operations	Updated to meet Standards for Training Packages  Minor changes to Elements and Performance Criteria for clarity  Prerequisites removed	Equivalent unit

## Links

Companion Volume Implementation Guides are found in VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# Assessment Requirements for FBPCEL3012 Perform de-aromatising, de-alcoholising or de-sulphuring operations

## Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

## Performance Evidence

An individual demonstrating competency must satisfy all of the elements and performance criteria in this unit.

There must be evidence that the individual has operated at least one of either a de-aromatising, de-alcoholising or de-sulphurising process including:

- accessing workplace information to identify production requirements
- selecting, fitting and using appropriate personal protective equipment
- checking supply and status of materials before commencing operation
- preparing and confirming status of equipment and services before commencing de-aromatising, de-alcoholising or de-sulphurising process
- setting up and starting the de-aromatising, de-alcoholising or de-sulphurising process
- monitoring the de-aromatising, de-alcoholising or de-sulphurising process
- taking corrective action in response to non-conformance results
- shutting down the process after de-aromatising, de-alcoholising or de-sulphurising operations are completed
- conducting work according to environmental and health and safety requirements.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- purpose of de-aromatising, de-alcoholising or de-sulphuring operations and the links between this and other processes used in wine operations
- basic operating principles de-aromatising, de-alcoholising or de-sulphuring equipment
- materials used in the de-aromatising, de-alcoholising or de-sulphuring process
- main de-aromatising, de-alcoholising or de-sulphuring techniques and how these techniques can affect the characteristics of the wine
- methods used to monitor the process

- common causes of non-conformance results for product, process and equipment and corrective action required including:
  - issues that can be rectified
  - issues that must be reported
- responsibilities for health and safety in the workplace including:
  - health and safety hazards associated with the de-aromatising, de-alcoholising or de-sulphuring process
  - methods for controlling risks associated with health and safety hazards, including confined space entry
- responsibilities for identifying and controlling environmental issues
- workplace procedures and responsibility for:
  - reporting problems
  - shutting down the process
  - cleaning
  - handling waste
  - recording required information.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - a wine operations workplace or an environment that accurately represents workplace conditions
- resources, equipment and materials:
  - personal protective equipment for de-aromatising, de-alcoholising or de-sulphuring operations
  - equipment and materials for de-aromatising, de-alcoholising or de-sulphuring process
  - system for recording and reporting information
- specifications:
  - workplace procedures for de-aromatising, de-alcoholising or de-sulphuring operations.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## FBPCEL3013 Perform rectification (continuous still) operations

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

### Application

This unit of competency describes the skills and knowledge required to operate a rectification process in a wine operations distillation environment.

The unit applies to individuals who work in cellar operations and take responsibility for their own work using discretion and judgement in the selection and use of available resources.

All work must be carried out to comply with workplace procedures, according to state/territory health and safety, and food safety regulations, legislation and standards that apply to the workplace.

Legislative requirements relating to distilling alcohol apply to this unit. Users are advised to check current requirements with the Australian Tax Office and state/territory liquor licencing and health agencies.

### Pre-requisite Unit

Nil

### Unit Sector

Cellar Operations (CEL)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare the rectification process for operation	1.1 Identify and confirm production requirements 1.2 Confirm availability of required materials and services to meet production requirements

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	1.3 Confirm environmental guidelines and identify potential health and safety in the workplace hazards and controls according to workplace procedures 1.4 Select, fit and use personal protective equipment required for production 1.5 Prepare materials to meet production requirements 1.6 Check equipment to confirm readiness for use according to workplace procedures 1.7 Set the process to meet production requirements
2. Operate and monitor the rectification process	2.1 Start up the rectification process safely according to workplace procedures 2.2 Monitor rectification process to confirm performance meets specifications 2.3 Identify and address non-conformance product, process and equipment according to workplace procedures
3. Shut down the rectification process	3.1 Identify appropriate shutdown procedures 3.2 Dismantle equipment safely and prepare for cleaning 3.3 Collect, treat and dispose of or recycle waste generated by both the rectification process and cleaning procedures 3.4 Record workplace information according to workplace procedures

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"> <li>Interpret production and process information from a variety of workplace documents</li> </ul>
Writing	<ul style="list-style-type: none"> <li>Record data and present information in required format</li> </ul>
Numeracy	<ul style="list-style-type: none"> <li>Calculate numerical information relating to measurements, quantities and operational specifications</li> </ul>

Skill	Description
	<ul style="list-style-type: none"> <li>Interpret symbols and numbers during monitoring of process</li> </ul>
Navigate the world of work	<ul style="list-style-type: none"> <li>Apply workplace procedures and legislative responsibilities to own role</li> </ul>
Interact with others	<ul style="list-style-type: none"> <li>Use required communication mode to report operational information to relevant personnel</li> </ul>
Get the work done	<ul style="list-style-type: none"> <li>Plan, sequence and implement tasks required to achieve production requirements</li> <li>Respond to predictable routine problems, faults and out of specification issues and implements standard or logical solutions</li> </ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPCEL3013 Perform rectification (continuous still) operations	FDFCEL3005A Perform rectification (continuous still) operations	<p>Updated to meet Standards for Training Packages</p> <p>Minor changes to Elements and Performance Criteria for clarity</p> <p>Prerequisites removed</p>	Equivalent unit

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>



## Assessment Requirements for FBPCEL3013 Perform rectification (continuous still) operations

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

### Performance Evidence

An individual demonstrating competency must satisfy all of the elements and performance criteria in this unit.

There must be evidence that the individual has performed at least one rectification (continuous still) operation including:

- accessing workplace information to identify distillation requirements
- selecting, fitting and using personal protective equipment
- checking supply and status of materials before commencing rectification process
- preparing and confirming status of equipment and services before commencing rectification process
- setting up and starting the rectification process
- monitoring the rectification process
- taking corrective action in response to non-conformance results
- shutting down the process after rectification operations are completed
- conducting work according to legislative, environmental and health and safety requirements.

### Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- purpose of the rectification process, and the links between rectification and other processes used in wine operations
- basic operating principles of continuous still equipment
- materials used in the rectification process
- main rectification techniques and how these techniques can affect the characteristics of the wine:
  - effect of process stages on distillate and by-products

- critical temperatures
- methods used to monitor the process
- common causes of non-conformance results for product, process and equipment and corrective action required including:
  - issues that can be rectified
  - issues that must be reported
- responsibilities for health and safety in the workplace including:
  - health and safety hazards associated with the rectification process
  - methods for controlling risks associated with health and safety hazards, including confined space entry
- responsibilities for identifying and controlling environmental issues
- workplace procedures and responsibility for:
  - reporting problems
  - shutting down the process
  - cleaning
  - handling waste
  - recording required information.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - a wine operations workplace or an environment that accurately represents workplace conditions
- resources, equipment and materials:
  - personal protective equipment for continuous still operations
  - equipment and materials for continuous still process
  - system for recording and reporting information
- specifications:
  - workplace procedures for continuous still operations.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## FBPCEL3014 Prepare and monitor wine cultures

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

### Application

This unit of competency describes the skills and knowledge required to prepare and monitor yeast and bacterial cultures used in wine production and to inoculate product according to set specifications and may involve work in confined spaces.

The unit applies to individuals who work in winemaking operations and take responsibility for their own work using discretion and judgement in the selection and use of available resources.

All work must be carried out to comply with workplace procedures, according to state/territory health and safety in the workplace regulations, legislation and standards that apply to the workplace.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication

### Pre-requisite Unit

Nil

### Unit Sector

Cellar Operations (CEL)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare for inoculation	1.1 Confirm job requirements 1.2 Identify health and safety in the workplace hazards and controls according to workplace procedures

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	1.3 Select and fit personal protective equipment according to job requirements 1.4 Identify and confirm propagation requirements 1.5 Prepare yeast and bacterial cultures for use according to workplace procedures 1.6 Confirm availability and prepare product, services and materials to meet specified propagation requirements
2. Prepare equipment for culture preparation	2.1 Confirm cleaning and sterilising equipment is ready for use 2.2 Select, clean and sterilise propagation equipment and transfer equipment according to workplace procedures
3. Maintain and monitor the propagation process	3.1 Conduct transfer operations to meet propagation requirements 3.2 Conduct the culture propagation process using safe work practices 3.3 Inoculate ferments following work instruction 3.4 Monitor control points to confirm performance is maintained within specification 3.5 Monitor equipment to confirm operating condition 3.6 Identify and address non-conformance of product, process and equipment
4. Complete propagation activities	4.1 Complete propagation process according to workplace procedures 4.2 Dismantle equipment safely and prepare for cleaning 4.3 Collect, treat and dispose of or recycle waste generated by both the process and cleaning procedures 4.4 Conduct work according to workplace environmental guidelines 4.5 Record workplace information according to workplace procedures and format

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"> <li>Comprehend instructions in workplace documents</li> </ul>
Writing	<ul style="list-style-type: none"> <li>Complete workplace documents in required format</li> </ul>
Numeracy	<ul style="list-style-type: none"> <li>Perform calculations relating to measurements, quantities and operational specifications</li> <li>Interpret symbols and numbers during monitoring of process</li> </ul>
Navigate the world of work	<ul style="list-style-type: none"> <li>Apply workplace procedures and legislative responsibilities to own role</li> </ul>
Interact with others	<ul style="list-style-type: none"> <li>Use required communication mode to report operational information to relevant personnel</li> </ul>
Get the work done	<ul style="list-style-type: none"> <li>Plan, sequence and implement tasks according to set routines and procedures</li> <li>Problem solve as issues arise</li> </ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPCEL3014 Prepare and monitor wine cultures	FDFCEL2007A Prepare and monitor wine cultures	<p>Updated to meet Standards for Training Packages</p> <p>Minor changes to Elements and Performance Criteria for clarity</p> <p>Prerequisites removed</p> <p>Unit code updated to AQF3 to reflect complexity of competency</p>	Equivalent unit

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# Assessment Requirements for FBPCEL3014 Prepare and monitor wine cultures

## Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

## Performance Evidence

An individual demonstrating competency must satisfy all of the elements and performance criteria in this unit.

There must be evidence that the individual has demonstrated the following on at least two separate occasions:

- accessing workplace information to identify culture propagation requirements
- selecting and fitting personal protective equipment (PPE)
- confirming supply of necessary product, materials and services
- checking and confirming readiness of equipment before operation
- checking and preparing product and any additions, including checking of quality of wine yeast and bacterial cultures before use
- starting inoculation process according to instructions
- monitoring inoculation process control points for performance against specifications
- taking appropriate corrective action for out-of-specification process and equipment performance
- preparing equipment for cleaning including draining and dismantling equipment, in preparation for sanitation
- conducting work according to legislative, environmental and health and safety requirements.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- purpose and principles of propagating wine yeast and bacterial cultures
- relationship of propagation to alcoholic and malolactic fermentation
- stages and changes which occur during culture propagation and the effect of process stages on the end product

- quality characteristics and uses of wine yeast and bacterial cultures
- product and materials preparation requirements and effect of variation on the process
- main methods used in culturing yeast and bacteria for wine production
- basic features of fermentation reaction for yeast and bacterial cultures
- techniques that may be used to manipulate the propagation process and wine characteristics:
  - temperature
  - yeast variety or strain
  - Baumé scale / hydrometer
  - additions
  - pH
  - oxygen
- equipment and instrumentation components, purpose and operation
- significance and method of monitoring control points within the process
- common causes of variation and corrective action required
- routine shutdown and cleaning preparation requirements
- health and safety hazards and controls in the workplace
- workplace procedures and responsibility for:
  - reporting problems
  - environmental issues and controls
  - waste handling requirements
  - recording requirements.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - a wine workplace or an environment that accurately represents workplace conditions
- resources, equipment and materials:
  - PPE for wine culture operations
  - equipment and materials for wine culture process
  - yeast and/or bacterial cultures and products and materials required for wine culture process
  - system for recording and reporting information
- specifications:
  - work instructions and workplace procedures for wine culture operations.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.



## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## FBPCEL3015 Perform first distillation (pot still brandy) operations

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

### Application

This unit of competency describes the skills and knowledge required to operate a pot still for the first distillation of the input wine product.

The unit applies to individuals who work in cellar operations and take responsibility for their own work using discretion and judgement in the selection and use of available resources.

All work must be carried out to comply with workplace procedures according to state/territory health and safety, and food safety regulations, legislation and standards that apply to the workplace.

Legislative requirements relating to distilling alcohol apply to this unit. Users are advised to check current requirements with the Australian Tax Office and state/territory liquor licensing and health agencies.

### Pre-requisite Unit

Nil

### Unit Sector

Cellar Operations (CEL)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare the first distillation process	1.1 Identify and confirm production requirements 1.2 Confirm availability of required materials and services to meet

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	<p>production requirements</p> <p>1.3 Confirm environmental guidelines and identify potential health and safety hazards and controls according to workplace procedures</p> <p>1.4 Select and fit personal protective equipment relevant to the job role</p> <p>1.5 Prepare product and materials for operation, ensuring the distillate or low wine meets pre-set specifications</p> <p>1.6 Check equipment to confirm readiness for use according to workplace procedures</p> <p>1.7 Set the process to meet production requirements</p>
2. Operate and monitor the first distillation process	<p>2.1 Start up the first distillation process safely according to workplace procedures</p> <p>2.2 Monitor distillation process to confirm performance meets specifications</p> <p>2.3 Sample and test the low wine product to ensure it meets specification</p> <p>2.4 Identify and address non-conformance product, process and equipment according to workplace procedures</p>
3. Shut down the distillation process	<p>3.1 Identify and implement appropriate shutdown procedures</p> <p>3.2 Dismantle equipment safely and prepare for cleaning</p> <p>3.3 Collect, treat and dispose of or recycle waste generated by both the distillation process and cleaning procedures</p> <p>3.4 Record workplace information according to workplace requirements</p>

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"> <li>Interpret production and process information from a variety of workplace documents</li> </ul>

Skill	Description
Writing	<ul style="list-style-type: none"> <li>Record data and present information in required format</li> </ul>
Numeracy	<ul style="list-style-type: none"> <li>Calculate numerical information relating to measurements, quantities and operational specifications</li> <li>Interpret symbols and numbers during monitoring of process</li> </ul>
Navigate the world of work	<ul style="list-style-type: none"> <li>Apply workplace procedures and legislative responsibilities to own role</li> </ul>
Interact with others	<ul style="list-style-type: none"> <li>Use required communication mode to report operational information to relevant personnel</li> </ul>
Get the work done	<ul style="list-style-type: none"> <li>Plan, sequence and implement tasks required to achieve production requirements</li> <li>Respond to predictable routine problems, faults and out of specification issues and implements standard or logical solutions</li> </ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPCEL3015 Perform first distillation (pot still brandy) operations	FDFCEL2009A Perform first distillation (pot still brandy) operations	<p>Updated to meet Standards for Training Packages</p> <p>Code change</p> <p>Minor changes to Elements and Performance Criteria for clarity</p> <p>Prerequisites removed</p> <p>Unit code updated to AQF3 to reflect complexity of competency</p>	Equivalent unit

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## Assessment Requirements for FBPCEL3015 Perform first distillation (pot still brandy) operations

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

### Performance Evidence

An individual demonstrating competency must satisfy all of the elements and performance criteria in this unit.

There must be evidence that the individual has demonstrated the following at least once:

- accessing and interpreting workplace information to identify first distillation requirements
- selecting, fitting and using personal protective equipment (PPE)
- confirming supply of necessary product, materials and services
- checking temperature and alcoholic strength
- preparing product and materials for first distillation (pot still brandy) operations
- confirming equipment status and condition
- setting up and starting up the first distillation process
- monitoring the process and equipment operation to identify non-conformance results
- taking corrective action in response to non-conformance results
- taking samples and conducting tests
- following equipment shut down procedures
- preparing equipment for cleaning including draining and dismantling equipment, and removing waste either manually or by rinsing, in preparation for cleaning and sanitation
- conducting work safely and following health and safety procedures
- work within the requirements of Australian Taxation Office (ATO) regulations.

### Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- purpose and principles of batch distillation, including definition of the following terms:
  - pot still
  - charge

- first distillation
- low wine
- feints
- volatile wine components
- types and operation of distillation systems for brandy production, including pot stills and continuous stills, and the critical differences between them:
  - structure and operation
  - effect on characteristics of end product, including flavour, aromas, alcohol content, complexity and smoothness
- links to related processes:
  - yeasts and fermentation techniques used to make distillation wines
  - storage and handling of low wine
  - distillation of low wine to brandy
- stages and changes which occur during first distillation, including changes in alcoholic strength and speed of distillation
- quality characteristics (specifications) for low wine product
- product and materials preparation requirements and effect of variation on the process
- distillation equipment and instrumentation components, purpose and operation
- sampling and testing procedures
- significance and method of monitoring the process
- common causes of variation and corrective action required
- routine shutdown and cleaning preparation requirements
- health and safety hazards and controls in the workplace, including:
  - hazardous properties of ethanol
  - emergency flooding procedures
  - emergency evacuation procedures
  - safe handling of spirits procedures
- procedures and responsibility for:
  - reporting problems
  - waste handling requirements
  - environmental issues and controls
  - recording requirements.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - a wine operations workplace or an environment that accurately represents workplace conditions
- resources, equipment and materials:
  - PPE for first distillation (pot still brandy) operations

- distillation equipment and materials required for operations
- product for distillation
- system for recording and reporting information
- specifications:
  - ATO requirements relating to own role and area of responsibility
  - workplace procedures for first distillation (pot still brandy) operations.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>



## FBPCEL3016 Perform second distillation (pot still brandy) operations

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0

### Application

This unit of competency describes the skills and knowledge required to operate a pot still for the second distillation.

The unit applies to individuals who work in cellar operations and take responsibility for their own work using discretion and judgement in the selection and use of available resources.

All work must be carried out to comply with workplace procedures, according to state/territory health and safety, and food safety regulations, legislation and standards that apply to the workplace.

Legislative requirements relating to distilling alcohol apply to this unit. Users are advised to check current requirements with the Australian Tax Office and state/territory liquor licensing and health agencies.

### Pre-requisite Unit

Nil

### Unit Sector

Cellar Operations (CEL)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare the second distillation process for	1.1 Identify and confirm production requirements 1.2 Confirm availability of required materials and services to meet

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
operation	production requirements 1.3 Confirm environmental guidelines and identify potential health and safety hazards and controls according to workplace procedures 1.4 Select and fit personal protective equipment required for production 1.5 Prepare materials to meet production requirements 1.6 Check equipment to confirm readiness for use according to workplace procedures 1.7 Set the process to meet production requirements
2. Operate and monitor the second distillation process	2.1 Start up the distillation process safely according to workplace procedures 2.2 Monitor production process to confirm distillation process meets specifications 2.3 Identify and address non-conformances in product, process and equipment according to workplace procedures
3. Shut down the second distillation process	3.1 Identify and implement appropriate shutdown procedures 3.2 Dismantle equipment safely and prepare for cleaning 3.3 Collect, treat and dispose of or recycle waste generated by both the pressing process and cleaning procedures 3.4 Record workplace information according to workplace procedures

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"> <li>Interpret production and process information from a variety of workplace documents</li> </ul>
Writing	<ul style="list-style-type: none"> <li>Record data and present information in required format</li> </ul>
Numeracy	<ul style="list-style-type: none"> <li>Calculate numerical information relating to measurements, quantities and operational specifications</li> </ul>

Skill	Description
	<ul style="list-style-type: none"> <li>Interpret symbols and numbers during monitoring of process</li> </ul>
Navigate the world of work	<ul style="list-style-type: none"> <li>Apply workplace procedures and legislative responsibilities to own role</li> </ul>
Interact with others	<ul style="list-style-type: none"> <li>Use required communication mode to report operational information to relevant personnel</li> </ul>
Get the work done	<ul style="list-style-type: none"> <li>Plan, sequence and implement tasks required to achieve production requirements</li> <li>Respond to predictable routine problems, faults and out of specification issues and implements standard or logical solutions</li> </ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPCEL3016 Perform second distillation (pot still brandy) operations	FDFCEL3001A Perform second distillation (pot still brandy) operations	<p>Updated to meet Standards for Training Packages</p> <p>Minor changes to Elements and Performance Criteria for clarity</p> <p>Prerequisites removed</p>	Equivalent unit

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## Assessment Requirements for FBPCEL3016 Perform second distillation (pot still brandy) operations

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0

### Performance Evidence

An individual demonstrating competency must satisfy all of the elements and performance criteria in this unit.

There must be evidence that the individual has performed at least one second distillation (pot still brandy) operation including:

- accessing workplace information to identify distillation requirements
- selecting and fitting appropriate personal protective equipment (PPE)
- checking supply and status of materials before commencing pressing operation
- preparing and confirming status of equipment and services before commencing second distillation operations
- setting up and starting up the process, including any tests or procedures required by regulation
- monitoring the process
- taking corrective action in response to non-conformance results
- shutting down the process after pressing operations are completed
- conducting work according to legislative, environmental and health and safety requirements.

### Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- purpose of second distillation operations and the links between second distillation and other processes used in wine operations
- alcoholic strength of distillation product and final product
- legislation, regulation and workplace licence requirements related to fortified spirits for:
  - Australian Taxation Office (ATO)
  - border control

- customs and excise
- quality characteristics and uses of a range of distillation products, including:
  - fortifying spirit
  - commercial and premium brandy
- methods used to monitor the process
- common causes of non-conformance results for product, process and equipment and corrective action required including:
  - issues that can be rectified
  - issues that must be reported
- responsibilities for health and safety in the workplace including:
  - health and safety hazards associated with the pressing process
  - methods for controlling risks associated with health and safety hazards
- responsibilities for identifying and controlling environmental issues
- workplace procedures and responsibility for:
  - reporting problems
  - shutting down the process
  - cleaning
  - handling waste
  - recording required information.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - a workplace or an environment that accurately represents workplace conditions
- resources, equipment and materials:
  - PPE for second distillation operations
  - pot still and distillation equipment and materials required for production
  - documentation or technology for recording and reporting information
- specifications:
  - ATO requirements relating to own role and area of responsibility
  - work instructions and workplace procedures for second distillation operations.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## FBPCEL3017 Perform single column lees stripping (continuous still brandy) operations

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

### Application

This unit of competency describes the skills and knowledge required to perform lees stripping in winemaking.

The unit applies to individuals who work in cellar operations and take responsibility for their own work using discretion and judgement in the selection and use of available resources.

All work must be carried out to comply with workplace procedures, according to state/territory health and safety, and food safety regulations, legislation and standards that apply to the workplace.

Legislative requirements relating to distilling alcohol apply to this unit. Users are advised to check current requirements with the Australian Tax Office and state / territory liquor licensing and health agencies.

### Pre-requisite Unit

Nil

### Unit Sector

Cellar Operations (CEL)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare the lees stripping process for	1.1 Identify and confirm production requirements 1.2 Confirm availability of required materials and services to meet

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
operation	production requirements 1.3 Confirm environmental guidelines and identify potential health and safety hazards and controls according to workplace procedures 1.4 Select, fit and use personal protective equipment required for production 1.5 Prepare materials to meet production requirements 1.6 Check equipment to confirm readiness for use according to workplace procedures 1.7 Set the process to meet production requirements
2. Operate and monitor the lees stripping process	2.1 Start up the stripping process safely according to workplace procedures 2.2 Monitor operation to confirm equipment meets specifications 2.3 Identify and address non-conformance product, process and equipment according to workplace procedures
3. Shut down the lees stripping process	3.1 Identify and implement appropriate shutdown procedures 3.2 Dismantle equipment safely and prepare for cleaning 3.3 Collect, treat and dispose of or recycle waste generated by both the lees stripping process and cleaning procedures 3.4 Record workplace information according to workplace procedures

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"> <li>Interpret production and process information from a variety of workplace documents</li> </ul>
Writing	<ul style="list-style-type: none"> <li>Record data and present information in required format</li> </ul>
Numeracy	<ul style="list-style-type: none"> <li>Calculate numerical information relating to measurements, quantities and operational specifications</li> <li>Interpret symbols and numbers during monitoring of process</li> </ul>

Skill	Description
Navigate the world of work	<ul style="list-style-type: none"> <li>Apply workplace procedures and legislative responsibilities to own role</li> </ul>
Interact with others	<ul style="list-style-type: none"> <li>Use required communication mode to report operational information to relevant personnel</li> </ul>
Get the work done	<ul style="list-style-type: none"> <li>Plan, sequence and implement tasks required to achieve production requirements</li> <li>Respond to predictable routine problems, faults and out of specification issues and implements standard or logical solutions</li> </ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPCEL3017 Perform single column lees stripping (continuous still brandy) operations	FDFCEL2004A Perform single column lees stripping (continuous still brandy) operations	<p>Updated to meet Standards for Training Packages</p> <p>Minor changes to Elements and Performance Criteria for clarity</p> <p>Prerequisites removed</p> <p>Unit code updated to AQF3 to reflect complexity of competency</p>	Equivalent unit

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>



## Assessment Requirements for FBPCEL3017 Perform single column lees stripping (continuous still brandy) operations

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

### Performance Evidence

An individual demonstrating competency must satisfy all of the elements and performance criteria in this unit.

There must be evidence that the individual has performed at least one single column lees stripping (continuous still brandy) operation:

- accessing workplace information to identify distillation requirements
- selecting and fitting appropriate personal protective equipment
- checking supply and status of materials before commencing lees stripping operation
- preparing and confirming status of equipment and services before commencing lees stripping process
- setting up and starting the lees stripping process
- monitoring the lees stripping process
- taking corrective action in response to non-conformance results
- shutting down the process after lees stripping operations are completed
- conducting work according to legislative, environmental and health and safety requirements.

### Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- purpose of distillation process and the links between single column lees stripping and other processes used in wine operations
- basic operating principles of single column lees stripping equipment
- materials used in the distillation process
- main single column lees stripping techniques and how these techniques can affect the characteristics of the wine:
  - remove alcohol from fermented grape products prior to rectification

- apply the first stage of alcohol recovery for brandy production
- methods used to monitor the process
- common causes of non-conformance results for product, process and equipment and corrective action required including:
  - issues that can be rectified
  - issues that must be reported
- responsibilities for health and safety in the workplace including:
  - health and safety hazards associated with the lees stripping process
  - methods for controlling risks associated with health and safety hazards, including confined space entry
- responsibilities for identifying and controlling environmental issues
- workplace procedures and responsibility for:
  - reporting problems
  - shutting down the process
  - cleaning
  - handling waste
  - recording required information.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - a wine operations workplace or an environment that accurately represents workplace conditions
- resources, equipment and materials:
  - personal protective equipment for single column lees stripping (continuous still brandy) operations
  - equipment and materials for lees stripping operations
  - system for recording and reporting information
- specifications:
  - workplace procedures and legislative requirements for single column lees stripping (continuous still brandy) operations.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## FBPCEL3018 Perform dual column distillation (continuous still brandy) operations

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

### Application

This unit of competency describes the skills and knowledge required to produce brandy using dual column distillation equipment in winemaking.

The unit applies to individuals who work in cellar operations and take responsibility for their own work using discretion and judgement in the selection and use of available resources.

All work must be carried out to comply with workplace procedures, according to state/territory health and safety, and food safety regulations, legislation and standards that apply to the workplace.

Legislative requirements relating to distilling alcohol apply to this unit. Users are advised to check current requirements with the Australian Tax Office and state / territory liquor licensing and health agencies.

### Pre-requisite Unit

Nil

### Unit Sector

Cellar Operations (CEL)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare the dual column distillation	1.1 Identify and confirm production requirements 1.2 Confirm availability of required materials and services to meet

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
process for operation	production requirements 1.3 Confirm legislative and environmental guidelines and identify potential health and safety hazards and controls according to workplace procedures 1.4 Select, fit and use personal protective equipment required for production 1.5 Prepare materials to meet production requirements 1.6 Check equipment to confirm readiness for use according to workplace procedures 1.7 Set the process to meet production requirements
2. Operate and monitor the dual column distillation process	2.1 Start up the dual column distillation process safely according to workplace procedures 2.2 Monitor production process to confirm distillate meets specifications 2.3 Identify and address non-conformance of product, process and equipment according to workplace procedures
3. Shut down the distillation process	3.1 Identify and implement appropriate shutdown procedures 3.2 Dismantle equipment safely and prepare for cleaning 3.3 Collect, treat and dispose of or recycle waste generated by both the dual column distillation process and cleaning procedures 3.4 Record workplace information according to workplace procedures

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"> <li>Interpret production and process information from a variety of workplace documents</li> </ul>
Writing	<ul style="list-style-type: none"> <li>Record data and present information in required format</li> </ul>

Skill	Description
Numeracy	<ul style="list-style-type: none"> <li>Calculate numerical information relating to measurements, quantities and operational specifications</li> <li>Interpret symbols and numbers during monitoring of process</li> </ul>
Navigate the world of work	<ul style="list-style-type: none"> <li>Apply workplace procedures and legislative responsibilities to own role</li> </ul>
Interact with others	<ul style="list-style-type: none"> <li>Use required communication mode to report operational information to relevant personnel</li> </ul>
Get the work done	<ul style="list-style-type: none"> <li>Plan, sequence and implement tasks required to achieve production requirements</li> <li>Respond to predictable routine problems, faults and out of specification issues and implements standard or logical solutions</li> </ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPCEL3018 Perform dual column distillation (continuous still brandy) operations	FDFCEL2008A Perform dual column distillation (continuous still brandy) operations	<p>Updated to meet Standards for Training Packages</p> <p>Minor changes to elements and performance criteria for clarity</p> <p>Prerequisites removed</p> <p>Unit code updated to AQF3 to reflect complexity of competency</p>	Equivalent unit

## Links

Companion Volume Implementation Guides are found in VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>



## Assessment Requirements for FBPCEL3018 Perform dual column distillation (continuous still brandy) operations

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

### Performance Evidence

An individual demonstrating competency must satisfy all of the elements and performance criteria in this unit.

There must be evidence that the individual has operated at least one dual column distillation process, including:

- accessing workplace information to identify dual column distillation requirements
- selecting, fitting and using appropriate personal protective equipment
- checking supply and status of materials before commencing dual column distillation operation
- preparing and confirming status of equipment and services before commencing dual column distillation process
- setting up and starting the dual column distillation process
- monitoring the dual column distillation process
- taking corrective action in response to non-conformance results
- shutting down the process after dual column distillation operations are completed
- conducting work according to Australian Taxation Office (ATO), environmental and health and safety requirements.

### Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- purpose of the dual column distillation process and the links between distillation and other processes used in wine operations
- types of distillation systems used for brandy production, including:
  - pot stills
  - continuous stills, and the critical differences between them

- main distillation techniques and how these techniques can affect the characteristics of the wine:
  - flavour, aromas
  - alcohol content
  - complexity and smoothness
- methods used to monitor the process
- common causes of non-conformance results for product, process and equipment and corrective action required including:
  - issues that can be rectified
  - issues that must be reported
- responsibilities for health and safety in the workplace including:
  - health and safety hazards associated with the dual column distillation process
  - methods for controlling risks associated with health and safety hazards, including confined space entry
- responsibilities for identifying and controlling environmental issues
- workplace procedures and responsibility for:
  - reporting problems
  - shutting down the process
  - cleaning
  - handling waste
  - recording required information.
- role and requirements of legislation in distillation process.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - a workplace or an environment that accurately represents workplace conditions
- resources, equipment and materials:
  - personal protective equipment for dual column distillation (continuous still brandy) operations
  - dual column distillation equipment and materials required for operations
  - documentation or technology for recording and reporting information
- specifications:
  - work instructions and workplace procedures for dual column distillation (continuous still brandy) operations
  - ATO requirements relating to own role and area of responsibility.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.



## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## FBPCHE3001 Conduct cheese making operations

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 1.0.

### Application

This unit of competency describes the skills and knowledge required to carry out cheese making in a bulk packaging operations using an integrated industrial process under the direction of the cheese manufacturing manager.

This unit applies to individuals working as advanced operators in industrial cheese enterprises who take responsibility for their own work. It does not include milk preparation processes or cheese curing, portioning or retail packaging processes.

All work must be carried out to comply with workplace procedures, in accordance with State/Territory work health and safety, and food safety regulations, legislation and standards that apply to the workplace.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

### Pre-requisite Unit

Nil

### Unit Sector

Cheese (CHE)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare to work	1.1 Organise the work tasks to be completed 1.2 Identify workplace health and safety hazards, assess risks and

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	implement control measures 1.3 Identify food safety and quality non-compliance issues and report to supervisor 1.4 Select and use appropriate personal protective equipment
2. Monitor milk supply and quality	2.1 Ensure the availability of milk supply for batch according to product specifications 2.2 Check the sample data on milk for composition, homogeneity, somatic cell count and disk assay according to specification 2.3 Maintain milk at temperature required for inoculation with the culture according to recipe and specifications
3. Prepare cheese making equipment and add ingredients	3.1 Ensure ingredients are available to meet product requirements 3.2 Measure ingredients to meet recipe requirements 3.3 Handle ingredients safely and according to procedures to maintain purity and viability 3.4 Ensure equipment is ready for use according to operating procedures and safety requirements 3.5 Set and operate cheese making equipment to meet specified requirements 3.6 Load ingredients into the plant at the required stage 3.7 Check the final mix against specifications
4. Carry out process control and make adjustments according to operating procedures	4.1 Implement equipment start-up and shutdown according to safety requirements and operating procedures 4.2 Identify and report equipment faults 4.3 Monitor cheese making processes taking required samples according to workplace procedures 4.4 Carry out routine tests and record results according to workplace procedures 4.5 Check cheese for food safety and quality requirements 4.6 Identify, rectify and report out of specification cheese 4.7 Package cheese for curing and distribution with correct batch number attached 4.8 Clean equipment to meet production and hygiene requirements after each batch

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
5. Record and review cheese making process	5.1 Monitor cheese yields and compare to standards 5.2 Review environmental practices and safety standards used in the process 5.3 Maintain workplace records according to workplace procedures

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"> <li>Reads and interprets recipes, operating procedures, specifications, and other documentation from a variety of sources and consolidates information to determine production actions and activity</li> </ul>
Writing	<ul style="list-style-type: none"> <li>Accurately records and completes organisational documentation using clear language, correct spelling and terminology when reporting and maintaining production records</li> </ul>
Numeracy	<ul style="list-style-type: none"> <li>Interprets and manipulates numerical information for weights and measures relating to cheese recipes</li> <li>Performs mathematical calculations for sample tests and interprets results to determine action</li> </ul>
Oral communication	<ul style="list-style-type: none"> <li>Clearly explains detailed information using language, tone and pace appropriate to audience when reporting to supervisor</li> </ul>
Navigate the world of work	<ul style="list-style-type: none"> <li>Takes full responsibility for following policies, procedures and standards</li> <li>Identifies and acts on issues that contravene relevant policies, procedures and legal requirements</li> </ul>
Interact with others	<ul style="list-style-type: none"> <li>Uses a range of strategies to establish a sense of connection and build rapport with co-workers</li> </ul>
Get the work done	<ul style="list-style-type: none"> <li>Takes responsibility for planning, sequencing and prioritising tasks and own workload for efficiency and effective outcomes</li> <li>Makes routine decisions and implements standard procedures for routine tasks, using formal decision making processes for more complex and non-routine situations</li> </ul>

Skill	Description
	<ul style="list-style-type: none"><li>Contributes to continuous improvement of current work practices related to environmental practices and safety standards.</li></ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPCHE3001 Conduct cheese making operations	FDFCH3001A Coordinate cheese making operations	Updated to meet Standards for Training Packages  Minor changes to Performance Criteria for clarity	Equivalent unit

## Links

Companion Volumes, including Implementation Guides, are available at VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# Assessment Requirements for FBPCHE3001 Conduct cheese making operations

## Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 1.0.

## Performance Evidence

An individual demonstrating competency in this unit must satisfy all of the elements and performance criteria of this unit.

There must be evidence that the individual has completed all parts of the cheese making process to produce at least one cheese product, including:

- checking, mixing and adding ingredients for cheese making according to recipe and production requirements
- operating, monitoring and adjusting cheese making equipment to meet production requirements and in accordance with safety procedures
- sampling and testing cheese during development and adjusting equipment, ingredients or timing according to procedures and recipe
- preparing and packaging cheese for curing and distribution
- applying food safety policies and procedures to work practices
- reviewing the cheese making process and maintaining records according to workplace procedures.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- purpose, basic principles and processes of cheese making including:
  - the main components of milk and cheese (both curds and whey)
  - milk characteristics and components important in cheese making
  - milk preparation for cheese making (fat and protein standardisation, and pasteurisation)
  - types of starters used and their role in the fermentation process
  - effect of milk characteristics on cheese processing performance
  - use of coagulating enzymes to initiate the syneresis process
  - use of adjunct cultures

- moisture control in cheese making
- organoleptic properties of cheese and their relationship to processes and ingredients in cheese making
- effects of pH and temperature on cheese processing performance and product quality
- types and impact of inhibitory substances in milk
- cheese making equipment and operations including:
  - equipment start-up, shutdown and emergency procedures
  - quality characteristics to be achieved by a cheese making process
  - operation and routine maintenance requirements of cheese making and packing plant and equipment
  - operational procedures for operating the cheese making process, including adding ingredients, testing, measuring and recording, and making limited adjustments to ingredient recipes or the operation of equipment according to procedures
  - work health and safety hazards and controls
- common causes of variation and corrective action required for each stage of the cheese making operation including:
  - microbial contaminants of cheese (lipolytic bacteria, yeasts, moulds, bacillus, listeria, E. coli, salmonella, coliforms and staphylococci) and their impact on cheese quality
  - impact of bacteriophage on the fermentation process
  - sampling and testing procedures for contaminant microbes
  - contamination risk of inoculants and contaminants
  - food safety risks associated with the process and related control measures
  - sampling and testing procedures for cheese quality
- packaging procedures
- product/batch changeover procedures
- line responsibility for reporting production and performance information
- cleaning and hygiene management of cheese making including:
  - food safety and quality assurance standards and procedures
  - hygiene, cleaning and sanitation procedures in line with best manufacturing practice
  - Food Standards Code
  - routine maintenance procedures
- environmental issues and controls relevant to the process, including waste collection and handling procedures related to the process.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - a workplace or an environment that accurately reflects performance in a real workplace setting
- resources, equipment and materials:
  - cheese making production process and related equipment

- equipment operating procedures including control points and process settings
- sampling and testing equipment and procedures
- recording systems to meet food safety and quality assurance requirements
- cheese making consumables
- personal protection equipment and material safety data sheets (MSDS)
- cleaning procedures, materials and equipment
- specifications:
  - workplace procedures, including safe work practices, food safety, quality, and environmental requirements
  - product specifications and recipes.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volumes, including Implementation Guides, are available at VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>



## FBPCHE3002 Carry out processes for a range of artisan cheeses

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 1.0.

### Application

This unit of competency describes the skills and knowledge required to carry out artisan cheese making processes.

This unit applies to individuals who work in small scale cheese production enterprises and use discretion and judgement in their work.

All work must be carried out to comply with workplace procedures, in accordance with State/Territory work health and safety, and food safety regulations, legislation and standards that apply to the workplace.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

### Pre-requisite Unit

Nil

### Unit Sector

Cheese (CHE)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare to work	1.1 Organise the work tasks to be completed 1.2 Identify workplace health and safety hazards, assess risks and implement control measures 1.3 Identify and address food safety and quality non-compliance issues

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	according to legislative requirements 1.4 Select and use appropriate personal protective equipment
2. Apply sanitation procedures	2.1 Ensure the storage area for starter cultures is maintained according to workplace hygiene practices 2.2 Keep all surfaces and equipment clean and sanitised according to workplace sanitation procedures 2.3 Ensure raw milk is kept separate from pasteurised milk operations 2.4 Record food safety related information according to workplace food safety standards
3. Implement procedures to prepare milk for cheese making	3.1 Carry out clarification procedures for raw milk, if required 3.2 Implement standardisation procedures for milk to be processed into cheese 3.3 Carry out pasteurisation procedures for milk, if required
4. Carry out procedures to inoculate milk and cut the curd	4.1 Add inoculants and adjuncts to milk and allow it to ripen to specification 4.2 Measure rennet accurately and dilute before adding to milk 4.3 Maintain temperature at specified level according to the production requirements 4.4 Test curd for readiness to cut according production testing procedures
5. Implement procedures to separate, cook and wash the curd	5.1 Carry out curd cutting according to production procedures 5.2 Test whey for pH or acidity, temperature and fat levels to ensure curd cutting efficiency 5.3 Ensure optimal syneresis according to cooking schedule and curd stirring requirements 5.4 Carry out draining and washing procedures to ensure curd is at required moisture, pH level and consistency
6. Carry out fermentation, salting and optional pressing treatments	6.1 Transfer curd to hoops to form the correct shape for the type of cheese 6.2 Maintain temperature profile required for the cheese type to complete fermentation 6.3 Add salt after draining according to cheese type

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	6.4 Apply salting treatments according to cheese type 6.5 Press dry salted cheese in hoops according to cheese type
7. Implement cheese curing and packaging procedures	7.1 Apply maturing requirements according to cheese type 7.2 Monitor the maturing environment according to the cheese type 7.3 Apply ripening agents to cheese according to requirements of cheese type 7.4 Carry out packaging and labelling procedures either before or after maturing according to cheese type and workplace requirements
8. Assess the organoleptic properties of cheese and relate to specifications	8.1 Check that flavour meets specifications for the cheese type 8.2 Examine the texture of cheese and compare to specifications 8.3 Examine cheese for evenness of colour and finish according to specifications 8.4 Identify possible causes of out of specification results and make changes to procedures to address quality issues for future cheese production
9. Meet workplace requirements for food safety, quality and environmental management	9.1 Keep records of cheese manufacture according to workplace procedures 9.2 Dispose of waste according to workplace environmental and waste management procedures 9.3 Review the environmental impacts of the cheese making operation and identify opportunities for improvement

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"> <li>Interprets cheese making procedures and specifications from a variety of sources</li> </ul>
Writing	<ul style="list-style-type: none"> <li>Completes organisational documentation in required format</li> </ul>

Skill	Description
Numeracy	<ul style="list-style-type: none"> <li>Interprets and manipulates numerical information for volumes, weights and measures of ingredients</li> <li>Performs mathematical calculations for sample tests and interprets results</li> </ul>
Navigate the world of work	<ul style="list-style-type: none"> <li>Follows workplace procedures and legislative requirements</li> <li>Identifies and implements changes needed to procedures</li> </ul>
Get the work done	<ul style="list-style-type: none"> <li>Plans and completes tasks in correct sequence for effective cheese making outcomes</li> <li>Makes decisions directly related to completion of cheese making tasks</li> </ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPCHE3002 Carry out processes for a range of artisan cheeses	FDFCH3002A Carry out processes for a range of artisan cheeses	<p>Updated to meet Standards for Training Packages</p> <p>Minor changes to performance criteria for clarity</p>	Equivalent unit

## Links

Companion Volumes, including Implementation Guides, are available at VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# Assessment Requirements for FBPCHE3002 Carry out processes for a range of artisan cheeses

## Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 1.0.

## Performance Evidence

An individual demonstrating competency must satisfy all of the elements and performance criteria in this unit.

There must be evidence that the individual has prepared at least two separate batches of different artisan cheese types and demonstrated the following points for each batch:

- followed required food safety, hygiene, health and safety, quality and environmental management procedures
- prepared milk for cheese making
- inoculated and ripened milk to produce coagulate according to cheese type
- prepared the curd by, cooking, cutting, draining, salting and pressing according to type of cheese
- treated the cheese for maturing according to cheese type
- packaged and labelled artisan cheeses according to product requirements
- maintained records according to workplace and legislative requirements.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of the purpose and basic principles of cheese making, including:

- main cheese types and their characteristics, and the common processes for making the different cheese types
- main components of milk and cheese (both curds and whey)
- milk characteristics and components important in cheese making
- milk preparation for cheese making including when standardisation and pasteurisation are required
- effect of milk quality on cheese processing performance
- types and impact of inhibitory substances in milk

- types of starters used and their role in the fermentation process
- moisture control in cheese making
- processes of coagulation and syneresis and their role in cheese making
- effects of acidity (either pH or titratable acidity) and temperature on cheese processing performance and product quality
- role of yeasts, moulds and adjunct cultures in cheese making
- temperature and humidity requirements for maturing
- ripening agents for different cheese types
- contamination/food safety risks associated with the process and related control measures including:
  - microbial contaminants of cheese (lipolytic bacteria, yeasts, moulds, bacillus, listeria, E. coli, salmonella, coliforms and staphylococci) and their impact on cheese quality
  - the impact of bacteriophage in fermentation and ripening
  - contamination risk of inoculants and other contaminants
- techniques used to monitor and sample during the cheese making process for quality control, including:
  - inspecting
  - measuring
  - testing
- common causes of variation and corrective action required for each cheese making process
- organoleptic properties and their relationship to processes and ingredients in cheese making
- work health and safety hazards and controls
- procedures for:
  - routine maintenance
  - product/batch changeover
  - hygiene, cleaning and sanitation in line with best manufacturing practice
  - food safety and quality assurance in line with the Food Standards Code
  - environmental issues and controls, including waste collection and handling procedures
- procedures and responsibility for recording, reporting production and performance information and records required, including:
  - measurements for timing of operations
  - temperature
  - milk and curd acidity
  - curd weight
  - hooped yield
  - maturing data.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - a workplace or an environment that accurately reflects performance in a real workplace setting
- resources, equipment and materials:
  - production process and related equipment for making artisan cheeses
  - sampling and testing equipment and procedures
- specifications:
  - manufacturers' advice and operating procedures for cheese making equipment
  - methods for collecting data and calculating yields, efficiencies and material variances appropriate to the type of cheese and the production environment.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volumes, including Implementation Guides, are available at VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# FBPCHE5001 Carry out sampling and interpret tests for cheese production

## Modification History

Release	Comments
Release 1	This version released with the FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

## Application

This unit of competency describes the skills and knowledge required to carry out sampling and basic testing, and interpreting the results for artisan cheese production.

This unit applies to individuals employed as production managers who take responsibility for their own work and for the quality of the work of others in an artisan cheese enterprise. They develop and implement procedures, prepare ingredients and maintain product safety and quality throughout production.

No occupational licensing or certification requirements apply to this unit at the time of publication. However, legislative and regulatory requirements for food processing exist, so local requirements must be checked. All work must comply with Australian food safety standards and relevant codes of practice.

## Pre-requisite Unit

Prerequisite unit of competency for this unit is:

- MSL973013 Perform basic tests

## Unit Sector

Cheese (CHE)

## Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Implement sampling procedures in cheese	1.1 Determine and document sampling points for physical, chemical and microbial properties



Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
making	1.2 Determine an appropriate sampling size 1.3 Select and sterilise sampling equipment 1.4 Document and implement the sampling plan
2. Monitor chemistry in cheese making	2.1 Record an acidity profile for each stage in the production process 2.2 Carry out tests at stages for indicators, including salt levels, pH, moisture levels and fat levels, according to workplace procedures 2.3 Analyse whey content for fat to gauge efficiency of curd cutting and yield potential 2.4 Establish and review safe work procedures for processes requiring handling of chemicals and involving chemical reactions in cheese making
3. Monitor microbiological changes through the cheese making process	3.1 Prepare samples for testing according to workplace procedures 3.2 Ensure that serial dilutions are carried out aseptically 3.3 Compare stained specimens to reference samples to identify bacterial composition 3.4 Perform tests on cultures to ensure they have adequate activity before inoculating the vat 3.5 Make observations and record data for yeasts and moulds, total coliforms and staphylococci 3.6 Carry out sampling and testing for inhibitory substances in milk 3.7 Sample whey for bacteriophage levels and interpret the results
4. Carry out testing and interpret results to make adjustments to cheese making processes	4.1 Use tactile and visual senses to detect physical and chemical changes during cheese making 4.2 Evaluate organoleptic properties of final cheese product using sensory testing 4.3 Record and interpret tests results for information on composition, properties and reactions 4.4 Document recommended specifications for physical, chemical and microbial properties 4.5 Evaluate yield efficiency by comparing to established process control parameters 4.6 Reference specifications against test data 4.7 Implement changes to cheese making process based on test results

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"><li>Read and interpret technical information to determine food properties and reactions</li></ul>
Numeracy	<ul style="list-style-type: none"><li>Interpret test results for yeasts and moulds, coliforms and staphylococci</li></ul>
Get the work done	<ul style="list-style-type: none"><li>Use the main features and functions of digital tools to complete computational analysis and recording of results</li></ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPCHE5001 Carry out sampling and interpret tests for cheese production	FDFCH4001A Carry out sampling and interpret tests for cheese production	Updated to meet Standards for Training Packages  Unit code updated to reflect AQF level  Minor changes to Performance Criteria for clarity	Equivalent unit

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# Assessment Requirements for FBPCHE5001 Carry out sampling and interpret tests for cheese production

## Modification History

Release	Comments
Release 1	This version released with the FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

## Performance Evidence

An individual demonstrating competency in this unit must satisfy all of the elements and performance criteria of this unit.

There must be evidence that the individual has carried out sampling and interpreting tests for cheese production, including:

- interpreting and applying three different sampling plans and procedures, including:
  - in relation to the process chart for a cheese product
  - hard cheeses using a cheese trier or sample shaft
  - liquid cheese homogenate for microbiological analysis
- measuring and altering pH
- interpreting test results for yeasts and moulds, coliforms and staphylococci
- determining and applying methods for the control of growth of microorganisms
- identifying and reviewing safety hazards and control methods required when handling chemicals and working with processes that involve chemical reactions.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- use of technical terms used to communicate information on properties of food and materials commonly used in the food industry
- physical characteristics or phenomena that occur through cheese processing:
  - chemistry (acidity, calcium phosphate and salt levels)
  - microbiological counts
  - handle and feel of the product
  - total solids (or moisture)
  - heat and temperature

- taste, smell and appearance of the final cheese product
- the processes where characteristics and phenomena can be observed
- processes for the making of different types of cheese
- the processing stages designed to affect the structure of these compounds (e.g. the use of fermentation to coagulate the casein micelles for acid-coagulated cheeses, compared to the use of rennet for rennet-coagulated cheeses)
- common chemical reactions that occur, factors required to cause a reaction, and the effect of reactions for cheese making, including both spontaneous and controlled reactions, such as:
  - oxidation
  - enzymic
  - Maillard
  - acid-based reactions
  - other reactions relevant to a given cheese type and production process
- physical changes that occur to ingredients and product through cheese making
- reactions and properties of carbohydrates, proteins and fats through the cheese making process
- behaviour of each type of matter and its relationship to the production process
- changes in acidity through the cheese making process and its influence on spoilage, moisture and mineral content, texture and flavour
- temperature control and its impact throughout a cheese making process
- acidity profile (either pH or titratable acidity) ranges for the different types of cheeses
- the significance of fermentation for the control of spoilage and pathogens in cheese, and its influence on moisture levels, mineral content, texture and flavour
- the basic molecular structures of carbohydrates, proteins and fats
- the role of enzymes in generating biological reactions (e.g. the use of rennet as a coagulating agent)
- coagulation time and setting time for rennet
- factors that influence syneresis and its importance in cheese making
- types of microbial cells and their components and functions
- the main types of microorganisms and their activity in cheese making, both those that enhance the process and those that impact negatively on cheese characteristics
- types of pathogenic bacteria that can be present in milk and cheese products
- sampling requirements for cheese making
- pH, moisture and salt gradients in brine salted cheese (need for homogeneity in sampling)
- buffering in milk and the role of casein and phosphate levels
- basic molecular structures of carbohydrates, proteins and fats
- disinfection and sterilisation as applied to practical aspects of microbiological diversity and growth
- microorganisms of significance in the production and spoilage of cheese
- raw milk quality tests
- testing methods and interpretation of results for salmonella, staphylococcus, listeria and E. coli in raw milk cheese

- testing methods and interpretation for bacteriophage in whey
- interpreting measurements at stages in a cheese making process covering:
  - salt to moisture ratio (S/M)
  - moisture in the non-fat substance (MNFS)
  - fat in the dry matter (FDM)
- chemical and physical methods available for controlling microbial growth
- health and safety hazards and control methods, and food safety standards relevant to the workplace
- sources of technical information.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - skills must be demonstrated in a workplace setting or an environment that accurately represents a real workplace
- resources, equipment and materials:
  - production process and related equipment for cheese production
  - sampling and testing equipment
  - a range of cheeses at different stages of production for sampling
  - test results for a range of different cheeses or different stages of production
- specifications:
  - manufacturers' advice and product specifications.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## FBPCHE5002 Produce acid-coagulated soft cheese

### Modification History

Release	Comments
Release 1	This version released with the FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

### Application

This unit of competency describes the skills and knowledge required to produce acid-coagulated soft cheeses to a commercial standard.

This unit applies to individuals employed as managers with responsibility for overseeing and developing operational procedures complying with workplace health and safety, food safety, recordkeeping and quality assurance requirements for the soft cheese making process.

No occupational licensing or certification requirements apply to this unit at the time of publication. However, legislative and regulatory requirements for food processing exist, so local requirements must be checked. All work must comply with Australian food safety standards and relevant codes of practice.

### Pre-requisite Unit

Nil

### Unit Sector

Cheese (CHE)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Maintain sanitation in acid-coagulated soft cheese making	1.1 Sanitise or pre-ripen a container of starter culture under aseptic conditions before tipping the contents into the vat to reduce the risk of infection or contamination  1.2 Ensure all surfaces, except curing boards, meet cleanliness and sanitisation requirements

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	1.3 Manage stringent hygiene and quarantine procedures 1.4 Manage multi-phase cleaning systems to ensure sanitised surfaces and equipment 1.5 Record food safety related information according to workplace procedures
2. Implement procedures to prepare milk for acid-coagulated soft cheese making	2.1 Sample raw milk and measure and analyse composition and counts 2.2 Ensure clarification and standardisation procedures for raw milk are carried out 2.3 Ensure pasteurisation procedures for milk are performed 2.4 Maintain raw milk area separation from pasteurised milk operations
3. Inoculate the milk to promote coagulation	3.1 Add lactic culture to the milk and mix evenly according to cheese type and recipe 3.2 Add coagulating enzymes to the milk according to recipe 3.3 Maintain temperature throughout the tank or vat according to recipe 3.4 Maintain a log of pH and temperature to control ripening and yield
4. Develop procedures to process curds	4.1 Manage curd breaking or cutting according to recipe and workplace procedures 4.2 Measure and record whey fat content to assess curd breaking or cutting efficiency according to recipe and cheese type 4.3 Plan the processing schedule to ensure optimal syneresis 4.4 Develop and implement draining procedures to ensure curd is at required moisture, pH level and consistency
5. Manage packaging procedures for acid-coagulated soft cheeses	5.1 Manage ripening agents to acid-coagulated soft cheeses if required 5.2 Optimise curing by planning for and adjusting the key composition ratios of acid-coagulated soft cheeses 5.3 Use surface treatments according to cheese type and recipe 5.4 Manage packaging as appropriate for cheese type 5.5 Label the product with complete and accurate information as specified by legislation
6. Monitor and adjust	6.1 Establish the process objectives of acid-coagulated soft cheese

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
process control to produce cheese with consistent taste and quality	<p>making</p> <p>6.2 Control the amount of moisture in acid-coagulated soft cheese by regulating syneresis</p> <p>6.3 Adjust calcium phosphate levels to influence basic cheese structure if required</p> <p>6.4 Control texture of the cheese by regulating pH, ripening agents, salt, moisture and fat</p> <p>6.5 Control cheese flavour through choice of ingredients, such as milks, cultures, coagulating agents and salt, and pH levels</p> <p>6.6 Optimise yield by establishing process control parameters</p>
7. Carry out sensory analysis and grading of soft cheeses	<p>7.1 Assess cheeses for evenness of texture, colour, finish and flavour</p> <p>7.2 Analyse organoleptic properties of acid-coagulated soft cheese to identify possible changes to process control</p>
8. Meet workplace requirements for food safety, quality and environmental management	<p>8.1 Record food safety related information</p> <p>8.2 Maintain records of cheese manufacture</p> <p>8.3 Develop and implement work health and safety and environmental protection procedures through a risk management approach</p> <p>8.4 Dispose of waste and review environmental impacts of the cheese making operation</p>

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"> <li>Interpret recipes and specifications from a variety of sources to consolidate information for cheese production</li> </ul>
Numeracy	<ul style="list-style-type: none"> <li>Accurately weigh and measure ingredients for cheese making</li> <li>Sample cheese to analyse pH, fat, moisture and salts</li> <li>Calculate cheese yields</li> </ul>
Navigate the world of	<ul style="list-style-type: none"> <li>Follow policies, procedures and legislative requirements for</li> </ul>



Skill	Description
work	cheese making process

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPCHE5002 Produce acid-coagulated soft cheese	FDFCH4002A Produce acid-coagulated soft cheese	Updated to meet Standards for Training Packages  Unit code updated to reflect AQF level  Changes to Performance Criteria to clarify the intent of the unit	Equivalent unit

## Links

Companion Volume Implementation Guides are found in VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## Assessment Requirements for FBPCHE5002 Produce acid-coagulated soft cheese

### Modification History

Release	Comments
Release 1	This version released with the FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

### Performance Evidence

An individual demonstrating competency in this unit must satisfy all of the elements and performance criteria of this unit.

There must be evidence that the individual has safely and effectively overseen the production of at least two different types of acid-coagulated soft cheese, including:

- measuring and mixing acid coagulants and additives
- inoculating milk and controlling ripening in the vat
- promoting syneresis to the required firmness and composition of curd
- separating whey from curd and press, where applicable, and salt curd
- monitoring storage and ripening (where applicable) conditions for acid-coagulated soft cheese
- adding ripening agents (lipases) and surface treatments to acid-coagulated soft cheeses
- maintaining records for cheese making
- maintaining hygiene and sanitation procedures in line with best manufacturing practice
- using multi-phase cleaning systems
- maintaining the viability and integrity of coagulating agents
- developing operating procedures for the cheese making process.

### Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- the main cheese types and the common processes for making different types of cheeses
- the main components of milk and cheese (both curds and whey)
- types and impact of inhibitory substances in milk, including bacteriophage
- purpose and basic principles of cheese making
- specifications of product at each stage of cheese making
- milk characteristics and components important in cheese making

- milk preparation for cheese making (standardisation, pasteurisation and homogenisation, if required)
- types of starters and adjuncts used and their role in the fermentation process
- effect of milk characteristics on cheese processing performance
- moisture control in cheese making
- processes of coagulation and syneresis and their role in cheese making
- curd size and its impact on moisture
- effects of pH and temperature on cheese processing performance and product quality
- microbial contaminants of cheese (lipolytic bacteria, yeasts, moulds, bacillus, listeria, Escherichia coli, salmonella, coliforms and staphylococci) and their impact on cheese quality
- contamination risk of inoculants and contaminants
- yeasts and moulds and other microorganisms of significance in cheese making
- temperature and humidity of curing
- ripening agents for different cheese types
- techniques used to monitor the cheese making process, such as inspecting, measuring and testing, as required by the process
- common causes of variation and corrective action required for each cheese making process
- organoleptic properties and their relationship to processes and ingredients in cheese making
- sampling and testing procedures for microbes
- sampling procedures for cheese making
- food safety and quality assurance standards and procedures
- cleaning and sanitation procedures in line with Australian Standards for cleaning in the dairy industry
- product/batch changeover procedures
- work health and safety hazards and controls
- procedures for recording production and performance information
- environmental issues and controls relevant to the process, including waste collection and handling procedures
- Food Standards Code
- state/territory, Commonwealth and industry requirements relevant to food processing.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - skills must be demonstrated in a workplace setting or an environment that accurately represents a real food processing workplace
- resources, equipment and materials:
  - cheese making ingredients and production process equipment
  - sampling and testing equipment and procedures

- specifications:
  - manufacturers' advice and product specifications.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## FBPCHE5003 Produce a range of rennet-coagulated cheeses

### Modification History

Release	Comments
Release 1	This version released with the FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

### Application

This unit of competency describes the skills and knowledge required to produce a range of rennet-coagulated cheeses to a commercial standard.

The unit applies to individuals employed as production managers with responsibility for overseeing operational procedures that comply with workplace health and safety, food safety, recordkeeping and quality assurance requirements for the rennet-coagulated cheese making process.

No occupational licensing or certification requirements apply to this unit at the time of publication. However, legislative and regulatory requirements for food processing exist, so local requirements must be checked. All work must comply with Australian food safety standards and relevant codes of practice.

### Pre-requisite Unit

Nil

### Unit Sector

Cheese (CHE)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Manage sanitation in artisan cheese making	1.1 Sanitise or pre-ripen a container of starter culture under aseptic conditions before tipping the contents into the vat to reduce the risk of infection or contamination 1.2 Ensure all surfaces are clean and sanitised except for curing boards

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	<p>1.3 Supervise stringent personal hygiene and quarantine procedures as part of best manufacturing practice</p> <p>1.4 Apply multi-phase cleaning systems to ensure sanitised surfaces and equipment</p> <p>1.5 Review food safety related information, including milk counts and cheese bacterial counts</p>
2. Implement procedures to prepare milk for artisan cheese making	<p>2.1 Measure and analyse composition and counts in raw milk samples</p> <p>2.2 Implement standard procedures for preparing raw milk</p> <p>2.3 Carry out milk pasteurisation procedures</p> <p>2.4 Maintain raw milk in an area separate from pasteurised milk operations</p>
3. Mix ingredients in the vat for rennet-coagulated cheeses	<p>3.1 Add colour to the milk to change the colour of the cheese according to cheese type and recipe</p> <p>3.2 Add mould spores for mould-ripened cheeses according to cheese type and recipe</p> <p>3.3 Add adjunct cultures to influence the texture and flavour of the ripened cheese according to cheese type and recipe</p> <p>3.4 Add enzymes to alter the flavour profile of the ripened cheese according to cheese type and recipe</p> <p>3.5 Acidify the milk with organic or inorganic acids before renneting according to cheese type and recipe</p> <p>3.6 Use acid to partly acidify the milk prior to adding culture to control the calcium phosphate level in the curd during cheese making according to cheese type and recipe</p> <p>3.7 Add cultures and rennet to milk and hold at temperature according to recipe</p> <p>3.8 Maintain a log of pH and temperature to monitor yield</p>
4. Cut and handle the curd for rennet-coagulated cheeses	<p>4.1 Supervise curd cutting to achieve optimal yield and the required moisture level in the cheese</p> <p>4.2 Monitor agitation and temperature of the curd and whey</p> <p>4.3 Heat curd and whey as required and check for uneven curd or overheating according to recipe</p> <p>4.4 Plan the heating schedule to ensure optimal syneresis</p> <p>4.5 Remove part of the whey and replace with water to wash lactose</p>

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	<p>and lactic acid from the curd according to recipe</p> <p>4.6 Mat the curd under the whey before it is removed to ensure proper eye development for large and small eye cheeses, according to recipe</p> <p>4.7 Remove all or part of the whey from the curds by draining out the vat</p>
5. Implement salting, curing and packaging procedures	<p>5.1 Implement procedures to prepare the curd for salting</p> <p>5.2 Apply salting treatments to ensure salt profile effects are minimised in the finished product</p> <p>5.3 Place dry salted stirred or milled curd particles into moulds for pressing</p> <p>5.4 Implement and monitor ripening procedures</p> <p>5.5 Apply packaging appropriate for cheese type</p>
6. Monitor and adjust process controls to produce cheese with consistent taste and quality	<p>6.1 Identify the process objectives of rennet-coagulated cheese making</p> <p>6.2 Monitor processing to control moisture in cheeses</p> <p>6.3 Control the rate and the amount of acid development</p> <p>6.4 Control calcium phosphate levels to influence basic cheese structure</p> <p>6.5 Control texture of the cheese by regulating pH, ripening agents, salt, moisture and fat</p> <p>6.6 Control cheese flavour and pH levels by adding ingredients, such as milks, cultures, coagulating agents and salt</p> <p>6.7 Control processing parameters to achieve optimal yield</p> <p>6.8 Age rennet-coagulated cheeses to develop optimal flavour and texture</p>
7. Carry out sensory analysis and grading of artisan rennet-coagulated cheeses	<p>7.1 Assess cheeses for evenness of texture, colour, finish and flavour</p> <p>7.2 Grade cheeses according to texture, colour, finish and flavour</p> <p>7.3 Analyse organoleptic properties of rennet-coagulated cheeses to identify possible changes to process controls</p>
8. Meet workplace requirements for food safety, quality and environmental management	<p>8.1 Record food safety related information</p> <p>8.2 Maintain records of cheese manufacture</p> <p>8.3 Implement work health and safety and environmental protection procedures using a risk management approach</p>

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	8.4 Dispose of waste and review environmental impacts for the cheese making operation

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"> <li>Interpret recipes and specifications from a variety of sources to consolidate information for cheese production</li> </ul>
Numeracy	<ul style="list-style-type: none"> <li>Weigh and measure ingredients for cheese making</li> <li>Sample cheese to analyse pH, moisture and salts</li> <li>Calculate cheese yields</li> </ul>
Navigate the world of work	<ul style="list-style-type: none"> <li>Follow policies, procedures and legislative requirements for cheese making process</li> </ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPCHE5003 Produce a range of rennet-coagulated cheeses	FDFCH4003A Produce a range of rennet-coagulated cheeses	<p>Updated to meet Standards for Training Packages</p> <p>Unit code updated to reflect AQF level</p> <p>Changes to Performance Criteria to clarify the intent of the unit</p>	Equivalent unit



## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## Assessment Requirements for FBPCHE5003 Produce a range of rennet-coagulated cheeses

### Modification History

Release	Comments
Release 1	This version released with the FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

### Performance Evidence

An individual demonstrating competency in this unit must satisfy all of the elements and performance criteria of this unit.

There must be evidence that the individual has safely and effectively overseen the production of at least two different rennet-coagulated cheeses, including:

- sampling fresh milk and analysing results
- preparing milk for cheese making
- carrying out standardisation and pasteurisation procedures
- adjusting milk to renneting temperature and monitoring temperature
- adding optional additives to influence flavour, colour and texture during ripening
- adding starter for acidification by lactic acid or acid for direct or part-acidified milk for cheese making
- adding rennet to promote coagulation
- testing readiness of curd for cutting
- using stainless steel wire or nylon line knives to cut the curd into small particles
- carrying out agitation and optional cooking procedure
- carrying out cheese washing procedures, appropriate to type of cheese
- carrying out drainage operations
- carrying out further curd treatment, depending on the cheese type
- carrying out salting or brining process
- managing process control for moisture, pH, calcium phosphate levels, microbiology, texture and flavour in rennet-coagulated cheese making
- carrying out sampling for chemical and microbiological testing of cheese
- managing ripening process for rind cheeses, mould-ripened cheeses and bacterial surface ripened cheeses for optimum quality
- assessing rennet-coagulated cheeses for organoleptic qualities
- conducting tests for pH, moisture and salt levels in cheese
- maintaining records for cheese making

- developing operating procedures for the cheese making process.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- the common processes for making different types of rennet-coagulated cheeses, including:
  - pasta filata
  - eye cheese
  - cheddar
- the main components of milk and cheese (both curds and whey)
- types and impact of inhibitory substances in milk, including bacteriophage
- specifications of product at each stage of rennet-coagulated cheese making
- milk preparation for cheese making (standardisation and pasteurisation)
- types of starters used and their role in the fermentation process
- types of adjunct cultures and their role in the flavour and texture characteristics of the ripened cheese
- use of additives to the milk for modifying the flavour, texture and colour of the ripened cheese
- use of bacterial cultures and coagulating enzymes
- processes of coagulation and syneresis and their role in rennet-coagulated cheese making
- critical control points in the manufacture of each cheese type
- principles of brine salting and maintenance of brine salting systems for brine salted cheeses
- principles of dry salting for dry salted cheeses
- effects of pH and temperature on cheese processing performance and product quality
- lactic acid bacteria and their role in cheese making
- microbial contaminants of cheese (lipolytic bacteria, yeasts, moulds, bacillus, listeria, Escherichia coli, salmonella, coliforms and staphylococci) and their impact on cheese quality
- sampling and testing procedures
- yeasts and moulds and other microorganisms of significance in cheese making
- contamination/food safety risks associated with the process, and related control measures
- techniques used to monitor the cheese making process, such as inspecting, measuring and testing
- common causes of variation and corrective action required for each cheese making process
- organoleptic properties and their relationship to process control and ingredients in cheese making
- contamination risk of inoculants and contaminants
- food safety and quality assurance standards and procedures
- yield efficiency
- aseptic conditions and techniques for cheese making

- cleaning and sanitation procedures in line with Australian Standards for cleaning in the dairy industry
- routine maintenance procedures for cheese making equipment
- product/batch changeover procedures
- work health and safety hazards and controls
- procedures for recording production and performance information
- environmental issues and controls relevant to the process, including waste collection and handling procedures
- Food Standards Code
- state/territory, Commonwealth and industry requirements relevant to food processing.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - skills must be demonstrated in a workplace setting or an environment that accurately represents a real workplace
- resources, equipment and materials:
  - ingredients, production process and related equipment for rennet-coagulated cheese
  - sampling and testing equipment and procedures
  - food safety related information, including milk counts and cheese bacterial counts for milk used
- specifications:
  - manufacturers' advice and product specifications.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volume Implementation Guides are found in VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## FBPCHE5004 Produce acid and heat coagulated cheese

### Modification History

Release	Comments
Release 1	This version released with the FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

### Application

This unit of competency describes the skills and knowledge required to produce a range of acid and heat coagulated cheeses to a commercial standard.

This unit applies to individuals employed as managers with responsibility for overseeing and developing operational procedures complying with workplace health and safety, food safety, recordkeeping and quality assurance requirements for the acid and heat coagulated cheese making process.

No occupational licensing or certification requirements apply to this unit at the time of publication. However, legislative and regulatory requirements for food processing exist, so local requirements must be checked. All work must comply with Australian food safety standards and relevant codes of practice.

### Pre-requisite Unit

Nil

### Unit Sector

Cheese (CHE)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Maintain sanitation in making acid and heat coagulated cheese	1.1 Ensure all surfaces are clean and sanitised except for curing boards 1.2 Supervise stringent hygiene and quarantine procedures 1.3 Apply multi-phase cleaning systems to ensure sanitised surfaces

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	and equipment 1.4 Record food safety related information, including milk counts and cheese bacterial counts
2. Implement procedures to prepare whey, milk/whey blends or cream for artisan acid and heat coagulated cheese making	2.1 Measure and analyse composition and counts in raw milk samples 2.2 Implement standard procedures for preparing raw milk 2.3 Ensure the whey is heated to prevent further acidification according to recipe 2.4 Maintain raw milk in an area separate from pasteurised milk operations
3. Promote coagulation of both curds and whey	3.1 Raise the temperature of dairy liquid to temperature specified in recipe 3.2 Acidify the hot liquid to coagulate both casein and whey proteins according to recipe 3.3 Hold the curd in the curd and whey mixture after coagulation 3.4 Maintain a log of pH and temperature to monitor yield 3.5 Carry out draining
4. Manage cooking and packaging procedures for acid and heat coagulated cheeses	4.1 Plan the cooking schedule to ensure optimal coagulation of proteins 4.2 Implement draining procedures to ensure cheese is at required consistency 4.3 Apply salting treatments to ensure salt profile effects are minimised in the finished product 4.4 Cool cheeses before packing according to cooking and packaging procedures 4.5 Maintain aseptic conditions during cooling to minimise contamination with microbial contaminants 4.6 Apply packaging appropriate for acid and heat coagulated cooked cheeses 4.7 Label the product with complete and accurate information as specified by legislation
5. Monitor and adjust process control to produce cheese with consistent taste and	5.1 Establish the process objectives of acid and heat coagulated cooked cheese making 5.2 Control the texture of the cheese by regulating pH and fat

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
quality	5.3 Control cheese flavour through choice of ingredients, such as whey, milk, cream, acidulant and salt 5.4 Establish process control parameters to optimise yield
6. Carry out sensory analysis and grading of acid and heat coagulated cheeses	6.1 Assess cheeses for evenness of texture, colour, finish and flavour 6.2 Grade cheeses according to texture, colour, finish and flavour 6.3 Analyse organoleptic properties of acid and heat coagulated cooked cheese to identify possible changes to process controls
7. Meet workplace requirements for food safety, quality and environmental management	7.1 Record food safety related information 7.2 Maintain records of cheese manufacture 7.3 Implement workplace health and safety and environmental protection procedures through a risk management approach 7.4 Implement food safety standards 7.5 Dispose of waste and review environmental impacts of the cheese making operation

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"> <li>Interpret recipes and specifications from a variety of sources to consolidate information for cheese production</li> </ul>
Numeracy	<ul style="list-style-type: none"> <li>Weigh and measure ingredients for cheese making</li> <li>Test cheese to analyse pH, moisture and salts</li> <li>Accurately weigh and measure ingredients for cheese making</li> </ul>
Navigate the world of work	<ul style="list-style-type: none"> <li>Follow policies, procedures and legislative requirements for cheese making process</li> </ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPCHE5004 Produce acid and heat coagulated cheese	FDFCH4004A Produce acid - heat coagulated cheese	Updated to meet Standards for Training Packages  Unit code updated to reflect AQF level  Minor changes to Performance Criteria to clarify the intent  Minor change to title	Equivalent unit

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>



## Assessment Requirements for FBPCHE5004 Produce acid and heat coagulated cheese

### Modification History

Release	Comments
Release 1	This version released with the FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

### Performance Evidence

An individual demonstrating competency in this unit must satisfy all of the elements and performance criteria of this unit.

There must be evidence that the individual has effectively overseen the production of two different types of acid and heat coagulated cheese, including:

- acidifying a heated milk mixture to promote coagulation
- carrying out drainage operations
- carrying out the cooking process
- recovering curd in the cheese
- monitoring storage and ripening (where applicable) conditions for acid and heat coagulated cheese
- conducting tests for pH, moisture, fat and salt levels in cheese
- maintaining records for cheese making
- developing operating procedures for cheese making.

### Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- the main components of milk, whey and cream for making acid and heat coagulated cheese
- specifications of product at each stage of cheese making
- standardisation of dairy liquids for acid and heat coagulated cheese
- types of acid used for coagulation
- microbial contaminants of cheese (lipolytic bacteria, yeasts, moulds, bacillus, listeria, Escherichia coli, salmonella, coliforms and staphylococci) and their impact on cheese quality
- sampling and testing procedures for microbes

- yeasts and moulds and other microorganisms of significance in cheese making
- contamination and food safety risks associated with the process, and related control measures
- techniques used to monitor the cheese making process, such as inspecting, measuring and testing, as required by the process
- common causes of variation and corrective action required for each cheese making process
- organoleptic properties and their relationship to processes and ingredients in cheese making
- sampling procedures
- aseptic conditions and techniques for cheese making
- contamination risk of inoculants and contaminants
- food safety and quality assurance standards and procedures
- cleaning and sanitation procedures and Australian Standards
- routine maintenance procedures
- product/batch changeover procedures
- work health and safety hazards and controls
- hygiene procedures, including washing and decontamination
- procedures for recording production and performance information
- environmental issues and controls relevant to the process, including waste collection and handling procedures related to the process
- Food Standards Code
- state/territory, Commonwealth and industry requirements relevant to food processing.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - skills must be demonstrated in a workplace setting or an environment that accurately represents a real workplace
- resources, equipment and materials:
  - ingredients, production process and related equipment for acid and heat coagulated cheese
  - sampling and testing equipment and procedures
- specifications:
  - manufacturers' advice and product specifications.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>



## FBPCON2001 Examine raw ingredients used in confectionery

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 1.0.

### Application

This unit of competency describes the skills and knowledge required to recognise the key characteristics of raw materials used in confectionery products to support production specifications.

This unit applies to individuals who work as production workers responsible for the operation and monitoring of confectionery equipment and processes under general supervision and exercise limited autonomy.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

### Pre-requisite Unit

Nil

### Unit Sector

Confectionary (CON)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Recognise raw ingredients used in confectionery production	1.1 Identify key confectionery groups and their features 1.2 Recognise commonly used raw ingredients and their origins 1.3 Identify types of carbohydrates used in confectionery 1.4 Identify types of sweeteners used in confectionery

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	1.5 Discriminate between grades and properties of sugar 1.6 Identify types of starches and glucose syrups 1.7 Identify types of fats used in confectionery
2. Examine the effects of raw materials in confectionery production	2.1 Compare effects of using different types of commonly used raw ingredients in confectionery 2.2 Compare effects of using different types of carbohydrates and fats in confectionery 2.3 Compare effects of using different types of sugars in confectionery 2.4 Examine effects of using types of starches and glucose syrups in confectionery 2.5 Examine effects of temperature and water on raw ingredients 2.6 Examine effects of production processes on raw ingredients
3. Recognise processing requirements for raw materials	3.1 Interpret specifications for production 3.2 Predict implications for processing of raw materials 3.3 Identify common problems associated with raw materials 3.4 Determine actions required to address common problems 3.5 Identify storage and handling requirements for raw ingredients 3.6 Identify processing requirements in accordance with work procedures

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"> <li>Interpret information from a variety of sources relevant to confectionary production</li> </ul>
Get the work done	<ul style="list-style-type: none"> <li>Respond to highly obvious routine problems using step by step instruction and procedures or a trial and error process for comparing and examining different confectionary raw materials</li> </ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPCON2001 Examine raw ingredients used in confectionery.	FDFCON2001A Examine raw ingredients used in confectionery.	Updated to meet Standards for Training Packages  Changes to Elements and Performance Criteria for clarity	Equivalent unit

## Links

Companion Volumes, including Implementation Guides, are available at VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## Assessment Requirements for FBPCON2001 Examine raw ingredients used in confectionery

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 1.0.

### Performance Evidence

An individual demonstrating competency in this unit must satisfy all of the elements and performance criteria of this unit. There must be evidence that the individual has performed each of the following on at least one occasion:

- identified the key confectionery groups and the main raw materials used
- compared the effects of different raw materials in confectionery
- recognised the effects of temperature and water on raw materials
- recognised the effects of the production process on raw materials
- identified common problems with raw materials in the production process and determined required action
- accessed and interpreted workplace information on raw materials.

### Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- origins of raw materials used in confectionery, including:
  - characteristics of raw materials
  - effects and uses of raw materials
  - storage and handling requirements for raw materials
- confectionery product types
- common problems associated with raw and action required
- types of carbohydrates and uses in confectionery
- types of sweeteners and uses in confectionery
- types of starches and glucose syrups and uses in confectionery.

### Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - a workplace or an environment that accurately represents workplace conditions
- resources, equipment and materials:
  - ingredients used in the preparation of high/low boil product as required
- specifications:
  - work procedures, including advice on safe work practices, food safety, quality and environmental requirements
  - documentation and recording requirements and procedures.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volumes, including Implementation Guides, are available at VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>



## FBPCON2002 Operate a boiled confectionery process

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 1.0.

### Application

This unit of competency describes the skills and knowledge required to set up, operate, adjust and shut down a high boil and low boil confectionery process.

This unit applies to individuals who work under general supervision as production workers and are responsible for the operation and monitoring of confectionery boiling equipment in a confectionery production environment.

All work must be carried out to comply with workplace procedures, in accordance with State/Territory work health and safety, and food safety regulations, legislation and standards that apply to the workplace.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

### Pre-requisite Unit

Nil

### Unit Sector

Confectionery (CON)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare the high and low boil equipment and process for operation	1.1 Confirm materials are available according to workplace procedure 1.2 Identify safety requirements and wear appropriate personal protective equipment ensuring correct fit

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	<p>1.3 Select and combine ingredients for syrup in the sequence specified by batch or recipe instructions</p> <p>1.4 Identify and confirm cleaning and maintenance requirements and status of high and low boil process equipment</p> <p>1.5 Enter processing and operating parameters according to equipment operating instructions</p> <p>1.6 Check and adjust equipment performance according to operating parameters</p> <p>1.7 Carry out pre-start checks according to operating procedures</p>
2. Operate and monitor the high and low boil process	<p>2.1 Deliver ingredients and additives in the required quantities and sequence to meet recipe specifications</p> <p>2.2 Start and operate the process safely according to operating instructions and safety procedures</p> <p>2.3 Monitor equipment to identify variation in operating conditions</p> <p>2.4 Identify variation in equipment operation and report maintenance requirements according to workplace procedures</p> <p>2.5 Heat, cook and cool product according to specification</p> <p>2.6 Identify, rectify or report out-of-specification product or process outcomes according to workplace procedures</p> <p>2.7 Maintain the work area according to workplace procedures</p> <p>2.8 Maintain workplace records according to workplace procedures</p>
3. Shut down the high and low boil process	<p>3.1 Identify the appropriate shutdown procedure according to operating instructions</p> <p>3.2 Shut down the process safely according to shutdown procedures</p> <p>3.3 Identify and report maintenance requirements according to workplace procedures</p>

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"> <li>Interprets and comprehends information contained in recipes, equipment operational instructions and workplace procedures</li> </ul>
Writing	<ul style="list-style-type: none"> <li>Enters operational data into production equipment accurately</li> </ul>
Numeracy	<ul style="list-style-type: none"> <li>Locates, recognises and applies basic calculations for numerical information found in recipes and production equipment</li> </ul>
Navigate the world of work	<ul style="list-style-type: none"> <li>Follows clear instructions within defined level of responsibility</li> <li>Recognises organisational expectations and follows explicit protocols and procedures, seeking clarification when required</li> </ul>
Interact with others	<ul style="list-style-type: none"> <li>Follows instructions and procedures regarding what and how to communicate when reporting on confectionary production issues</li> </ul>
Get the work done	<ul style="list-style-type: none"> <li>Follows clearly defined instructions and sequencing, and monitors own progress seeking assistance when necessary</li> <li>Makes low-impact decisions around immediate clearly defined production tasks</li> </ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPCON2002 Operate a boiled confectionery process	FDFCON2002A Operate a boiled confectionery process	<p>Updated to meet Standards for Training Packages</p> <p>Minor changes to Performance Criteria for clarity</p>	Equivalent unit

## Links

Companion Volumes, including Implementation Guides, are available at VETNet: - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## Assessment Requirements for FBPCON2002 Operate a boiled confectionery process

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 1.0.

### Performance Evidence

An individual demonstrating competency in this unit must satisfy all of the elements and performance criteria of this unit. There must be evidence that the individual has operated at least one high and low boiled confectionery process, including:

- checking the availability of materials
- selecting, fitting and using personal protective equipment
- conducting pre-start checks on machinery
- starting, operating, monitoring and adjusting process equipment to achieve required quality outcomes
- taking corrective action in response to typical faults and inconsistencies
- completing workplace records
- shutting down equipment.

Throughout the process, individuals must:

- apply food safety procedures to work practices
- follow work health and safety and equipment operating procedures.

### Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- purpose and basic principles of the high/low boil process relating to the range of products to be produced, including:
  - ingredients used and their purpose
  - syrup making (super saturated solutions)
  - relationship between temperature and moisture content
  - the effect of vacuum on processing
  - reactions including crystallisation

- process stages
- maturation and further processing requirements
- basic operating principles of equipment, including main equipment components, status and purpose of guards, the effect of vacuum on the cooking process and further processing, equipment operating capacities and applications, and the purpose and location of sensors and related feedback instrumentation
- services required and action to take if services are not available
- the flow of the high/low boil process and the effect of outputs on downstream processes
- quality requirements of materials used in low and high boil manufacture and effect of variation on process performance and outputs
- quality characteristics required of process outputs
- methods used to further process high and low boils, including basic forming or extruding and stamping, cooling, pulling and aerating as required by product range
- operating requirements and parameters and corrective action required where operation is outside specified operating parameters
- typical equipment faults and related causes, including signs and symptoms of faulty equipment and early warning signs of potential problems
- methods used to monitor the high/low boil process, including inspecting, measuring and testing as required by the process
- inspection or test points (control points) in the process and the related procedures and recording requirements
- contamination and food safety risks associated with the high and low boil process and related control measures
- common causes of variation and corrective action required
- work health and safety hazards and controls
- requirements of different shutdowns as appropriate to the high and low boil process and workplace production requirements, including emergency and routine shutdowns and procedures to follow in the event of a power outage
- isolation, lock out and tag out procedures and responsibilities
- product and process changeover procedures and responsibilities
- procedures and responsibility for reporting production and performance information
- environmental issues and controls relevant to the high and low boil process, including waste and rework collection and handling procedures related to the process
- basic operating principles of process control, where relevant, including the relationship between control panels and systems and the physical equipment
- cleaning and sanitation procedures, where relevant.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - a workplace or an environment that accurately represents workplace conditions
- resources, equipment and materials:
  - personal protective clothing and equipment

- process and related equipment and services, including mixing equipment, cookers and coolers
- ingredients used in the preparation of high/low boil product
- sampling schedules and test procedures and equipment
- cleaning materials, equipment and procedures
- specifications:
  - work procedures, including advice on safe work practices, food safety, quality and environmental requirements
  - information on equipment capacity and operating parameters
  - recipe/batch instructions
  - specifications, control points and processing parameters
  - documentation and recording requirements and procedures.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volumes, including Implementation Guides, are available at VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## FBPCON2003 Operate a chocolate conching process

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 1.0.

### Application

This unit of competency describes the skills and knowledge required to set up, operate, adjust and shut down a chocolate conching process.

This unit applies to individuals who work under general supervision as production workers and are responsible for the operation and monitoring of chocolate conching process equipment in a confectionery production environment.

All work must be carried out to comply with workplace procedures, in accordance with State/Territory work health and safety, and food safety regulations, legislation and standards that apply to the workplace.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

### Pre-requisite Unit

Nil

### Unit Sector

Confectionery (CON)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare the conching equipment and process for operation	1.1 Confirm refined mass is available according to workplace procedures 1.2 Identify and confirm cleaning and maintenance requirements

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	<p>according to workplace requirements</p> <p>1.3 Identify safety requirements and wear appropriate personal protective equipment ensuring correct fit</p> <p>1.4 Fit and adjust machine components and related attachments</p> <p>1.5 Enter processing or operating parameters according to equipment operating instructions</p> <p>1.6 Check and adjust equipment performance according to operating parameters</p> <p>1.7 Carry out pre-start checks according to operating procedures</p>
2. Operate and monitor the conching process	<p>2.1 Start and operate the conching process safely according to operating instructions and safety procedures</p> <p>2.2 Monitor equipment to identify variation in operating conditions</p> <p>2.3 Identify variation in equipment operation and report maintenance requirements according to workplace procedures</p> <p>2.4 Confirm that specifications are met at each stage according to recipe</p> <p>2.5 Identify, rectify or report out-of-specification product or process outcomes according to workplace procedures</p> <p>2.6 Maintain the work area according to workplace procedures</p> <p>2.7 Maintain workplace records according to workplace procedures</p>
3. Shut down the conching process	<p>3.1 Identify the appropriate shutdown procedure according to operating instructions</p> <p>3.2 Shut down the process safely according to shutdown procedures</p> <p>3.3 Identify and report maintenance requirements according to workplace procedures</p>

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
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Skill	Description
Reading	<ul style="list-style-type: none"> <li>Interprets and comprehends information contained in recipes, equipment operational instructions and workplace procedures</li> </ul>
Writing	<ul style="list-style-type: none"> <li>Enters operational data into production equipment accurately</li> </ul>
Numeracy	<ul style="list-style-type: none"> <li>Locates, recognises and applies basic calculations for numerical information found in recipes and production equipment</li> </ul>
Navigate the world of work	<ul style="list-style-type: none"> <li>Follows clear instructions within defined level of responsibility</li> <li>Recognises organisational expectations and follows explicit protocols and procedures, seeking clarification when required</li> </ul>
Interact with others	<ul style="list-style-type: none"> <li>Follows instructions and procedures regarding what and how to communicate when reporting on confectionary production issues</li> </ul>
Get the work done	<ul style="list-style-type: none"> <li>Follows clearly defined instructions and sequencing, and monitors own progress for confectionary production and seeks assistance when necessary</li> <li>Makes low-impact decisions around immediate clearly defined production tasks</li> </ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPCON2003 Operate a chocolate conching process	FDFCON2003A Operate a chocolate conching process	Updated to meet Standards for Training Packages  Minor changes to Performance Criteria for clarity	Equivalent unit

## Links

Companion Volumes, including Implementation Guides, are available at VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## Assessment Requirements for FBPCON2003 Operate a chocolate conching process

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 1.0.

### Performance Evidence

An individual demonstrating competency in this unit must satisfy all of the elements and performance criteria of this unit. There must be evidence that the individual has operated at least one chocolate conching process, including:

- checking the availability of materials
- selecting, fitting and using relevant personal protective equipment
- conducting pre-start checks on machinery
- starting, operating, monitoring and adjusting process equipment to achieve required quality outcomes
- taking corrective action in response to typical faults and inconsistencies
- completing workplace records
- shutting down equipment.

Throughout the process, individuals must:

- apply food safety procedures to work practices
- follow work health and safety and equipment operating procedures.

### Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- purpose and basic principles of conching chocolate, including:
  - processing stages in chocolate making and the role of conching
  - ingredients used in chocolate and those added during conching, including ingredients in different types of chocolate as appropriate to production requirements and an understanding of the quality requirements and role of each main ingredient
  - changes that occur in ingredients during conching
  - significance of viscosity and methods of adjustment

- basic operating principles of equipment, including main equipment components, status and purpose of guards, equipment operating capacities and applications, and the purpose and location of sensors and related feedback instrumentation
- services required and action to take if services are not available
- the flow of the conching process and the effect of outputs on downstream processes
- quality requirements of mass and ingredients used, and effect of variation on process performance and outputs
- quality characteristics required of the conching stage
- operating requirements and parameters and corrective action required where operation is outside specified operating parameters
- typical equipment faults and related causes, including signs and symptoms of faulty equipment and early warning signs of potential problems
- methods used to monitor the conching process, including an understanding of viscosity testing procedures and other inspections and tests as required
- inspection or test points (control points) in the process and the related procedures and recording requirements
- contamination/food safety risks and related control measures
- common causes of variation and corrective action required
- work health and safety hazards and controls
- requirements of different shutdowns as appropriate to the conching process and workplace production requirements, including emergency and routine shutdowns and procedures to follow in the event of a power outage
- isolation, lock out and tag out procedures and responsibilities
- product and process changeover procedures and responsibilities
- procedures and responsibility for reporting production and performance information
- environmental issues and controls relevant to the conching process, including waste and rework collection and handling procedures related to the process
- basic operating principles of process control where relevant, including the relationship between control panels and systems and the physical equipment
- cleaning and sanitation procedures for chocolate conching equipment.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - a workplace or an environment that accurately represents workplace conditions
- resources, equipment and materials:
  - personal protective clothing and equipment
  - process and related equipment and services
  - ingredients used in the preparation of chocolate products
  - sampling schedules and test procedures and equipment
  - cleaning procedures, materials and equipment
- specifications:

- work procedures, including advice on safe work practices, food safety, quality and environmental requirements
- information on equipment capacity and operating parameters
- recipe/batch instructions
- specifications, control points and processing parameters
- documentation and recording requirements and procedures.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volumes, including Implementation Guides, are available at VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## FBPCON2004 Operate a chocolate depositing or moulding process

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 1.0.

### Application

This unit of competency describes the skills and knowledge required to set up, operate, adjust and shut down a depositing process that deposits chocolate into moulds or directly onto conveyors.

This unit applies to individuals who work under general supervision as production workers and are responsible for the operation and monitoring of chocolate depositing or moulding equipment in a confectionery production environment.

All work must be carried out to comply with workplace procedures, in accordance with State/Territory work health and safety, and food safety regulations, legislation and standards that apply to the workplace.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

### Pre-requisite Unit

Nil

### Unit Sector

Confectionery (CON)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare the depositing equipment and process	1.1 Confirm materials are available according to workplace procedure

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
for operation	1.2 Identify safety requirements and wear appropriate personal protective equipment ensuring correct fit 1.3 Condition equipment and ingredients according to recipe 1.4 Identify and confirm cleaning and maintenance requirements 1.5 Fit and adjust machine components and related attachments according to equipment operating instructions 1.6 Enter processing or operating parameters according to recipe and equipment operating instructions 1.7 Carry out pre-start checks according to operating procedures
2. Operate and monitor the depositing/moulding process	2.1 Start and operate the process safely according to operating instructions and safety procedures 2.2 Deposit chocolate to achieve required coverage 2.3 Monitor equipment to identify variation in operating conditions 2.4 Identify variation in equipment operation and report maintenance requirements according to workplace procedures 2.5 Confirm that specifications are met at each stage with recipe 2.6 Identify, rectify or report out-of-specification product or process outcomes according to workplace procedures 2.7 Maintain the work area according to workplace procedures 2.8 Maintain workplace records according to workplace procedures
3. Shut down the depositing/moulding process	3.1 Identify the appropriate shutdown procedure according to operating instructions 3.2 Shut down the process safely according to shutdown procedures 3.3 Identify and report maintenance requirements according to workplace procedures

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
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Skill	Description
Reading	<ul style="list-style-type: none"> <li>Interprets and comprehends information contained in chocolate depositing or moulding equipment operational instructions and workplace procedures</li> </ul>
Writing	<ul style="list-style-type: none"> <li>Enters operational data into production equipment accurately</li> </ul>
Numeracy	<ul style="list-style-type: none"> <li>Locates and applies basic calculations for numerical information found in recipes and production equipment</li> </ul>
Navigate the world of work	<ul style="list-style-type: none"> <li>Follows clear instructions within defined level of responsibility</li> <li>Recognises organisational expectations and follows explicit protocols and procedures, seeking clarification when required</li> </ul>
Interact with others	<ul style="list-style-type: none"> <li>Follows instructions and procedures regarding what and how to communicate when reporting on chocolate depositing or moulding production issues</li> </ul>
Get the work done	<ul style="list-style-type: none"> <li>Follows clearly defined instructions and sequencing, and monitors own progress for chocolate depositing or moulding production and seeks assistance when necessary</li> <li>Makes low-impact decisions around immediate clearly defined production tasks</li> </ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPCON2004 Operate a chocolate depositing or moulding process	FDFCON2004A Operate a chocolate depositing or moulding process	<p>Updated to meet Standards for Training Packages</p> <p>Minor changes to Performance Criteria for clarity</p>	Equivalent unit

## Links

Companion Volumes, including Implementation Guides, are available at VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## Assessment Requirements for FBPCON2004 Operate a chocolate depositing or moulding process

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 1.0.

### Performance Evidence

An individual demonstrating competency in this unit must satisfy all of the elements and performance criteria of this unit. There must be evidence that the individual has operated at least one chocolate depositing or moulding process, including:

- checking the availability of materials
- selecting, fitting and using appropriate personal protective equipment
- conducting pre-start checks on machinery
- starting, operating, monitoring and adjusting process equipment to achieve required quality outcomes
- taking corrective action in response to typical faults and inconsistencies
- completing workplace records
- shutting down equipment.

Throughout the process, individuals must:

- apply food safety procedures to work practices
- follow work health and safety procedures.

### Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- purpose and basic principles of the chocolate depositing process, including ingredients used, handling and conditioning requirements and process stages
- basic operating principles of equipment, including main equipment components, status and purpose of guards, equipment operating capacities and applications, and the purpose and location of sensors and related feedback instrumentation
- services required and action to take if services are not available
- the flow of the chocolate depositing process and the effect of outputs on downstream processes



- quality characteristics and types of chocolate used for depositing
- quality requirements of centres as appropriate to product and the effect of variation on process outputs
- quality characteristics to be achieved by the deposited product
- operating requirements and parameters and corrective action required where operation is outside specified operating parameters
- typical equipment faults and related causes, including signs and symptoms of faulty equipment and early warning signs of potential problems
- methods used to monitor the chocolate depositing process, including inspecting, measuring and testing as required by the process
- inspection or test points (control points) in the process and the related procedures and recording requirements
- contamination/food safety risks associated with the chocolate depositing process and related control measures
- common causes of variation and corrective action required
- work health and safety hazards and controls
- requirements of different shutdowns as appropriate to the chocolate depositing process and workplace production requirements, including emergency and routine shutdowns and procedures to follow in the event of a power outage
- isolation, lock out and tag out procedures and responsibilities
- procedures and responsibility for reporting production and performance information
- environmental issues and controls relevant to the chocolate depositing process, including waste and rework collection and handling procedures related to the process
- basic operating principles of process control, including the relationship between control panels and systems and the physical equipment
- cleaning and sanitation procedures for chocolate depositing or moulding equipment.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - a workplace or an environment that accurately represents workplace conditions
- resources, equipment and materials:
  - personal protective clothing and equipment
  - process and related equipment and services
  - ingredients used in the preparation of chocolate depositing or moulding product as required
  - sampling schedules and test procedures and equipment
  - cleaning materials, equipment and procedures
- specifications:
  - work procedures, including advice on safe work practices, food safety, quality and environmental requirements
  - information on equipment capacity and operating parameters

- recipe/batch instructions for chocolate depositing or moulding
- specifications, control points and processing parameters
- documentation and recording requirements and procedures.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volumes, including Implementation Guides, are available at VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## FBPCON2005 Operate a confectionery depositing process

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 1.0.

### Application

This unit of competency describes the skills and knowledge required to set up, operate, adjust and shut down a depositing process to deposit into solid or flexible moulds. This is sometimes known as starchless moulding.

This unit applies to individuals who work under general supervision as production workers and are responsible for the operation and monitoring of confectionery depositing equipment in a confectionery production environment.

All work must be carried out to comply with workplace procedures, in accordance with State/Territory work health and safety, and food safety regulations, legislation and standards that apply to the workplace.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

### Pre-requisite Unit

Nil

### Unit Sector

Confectionery (CON)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare the depositing equipment and process for operation	1.1 Confirm materials are available according to workplace procedure 1.2 Identify and confirm cleaning and maintenance requirements

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	<p>1.3 Identify safety requirements and wear appropriate personal protective equipment ensuring correct fit</p> <p>1.4 Fit and adjust machine components and related attachments according to equipment operating instructions</p> <p>1.5 Enter processing or operating parameters according to equipment operating instructions and confectionary specifications</p> <p>1.6 Check and adjust equipment performance according to operating parameters</p> <p>1.7 Carry out pre-start checks according to operating procedures</p> <p>1.8 Transfer syrup to depositing equipment according to operating procedures</p>
2. Operate and monitor the depositing process	<p>2.1 Start and operate the depositing process safely according to operating instructions and safety procedures</p> <p>2.2 Monitor equipment to identify variation in operating conditions</p> <p>2.3 Identify variation in equipment operation and report maintenance requirements according to workplace procedures</p> <p>2.4 Confirm that specifications are met at each stage according to recipe</p> <p>2.5 Identify, rectify or report out-of-specification product or process outcomes according to workplace procedures</p> <p>2.6 Maintain the work area according to workplace procedures</p> <p>2.7 Maintain workplace records according to workplace procedures</p>
3. Shut down the depositing process	<p>3.1 Identify the appropriate shutdown procedure according to operating instructions</p> <p>3.2 Shut down the process safely according to shutdown procedures</p> <p>3.3 Identify and report maintenance requirements according to workplace procedures</p>

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"> <li>Interprets and comprehends information contained in recipes, equipment operational instructions and workplace procedures</li> </ul>
Writing	<ul style="list-style-type: none"> <li>Enters operational data into confectionery depositing production equipment accurately</li> </ul>
Numeracy	<ul style="list-style-type: none"> <li>Locates, recognises and applies basic calculations for numerical information found in recipes and production equipment</li> </ul>
Navigate the world of work	<ul style="list-style-type: none"> <li>Follows clear instructions within defined level of responsibility</li> <li>Recognises organisational expectations and follows explicit protocols and procedures, seeking clarification when required</li> </ul>
Interact with others	<ul style="list-style-type: none"> <li>Follows instructions and procedures regarding what and how to communicate when reporting on confectionery depositing issues</li> </ul>
Get the work done	<ul style="list-style-type: none"> <li>Follows clearly defined instructions and sequencing, and monitors own progress for confectionery depositing and seeks assistance when necessary</li> <li>Makes low-impact decisions around immediate clearly defined production tasks</li> </ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPCON2005 Operate a confectionery depositing process	FDFCON2005A Operate a confectionery depositing process	Updated to meet Standards for Training Packages  Minor changes to Performance Criteria for clarity	Equivalent unit

## Links

Companion Volumes, including Implementation Guides, are available at VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## Assessment Requirements for FBPCON2005 Operate a confectionery depositing process

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 1.0.

### Performance Evidence

An individual demonstrating competency in this unit must satisfy all of the elements and performance criteria of this unit. There must be evidence that the individual has operated at least one confectionery depositing process, including:

- checking the availability of materials
- selecting, fitting and using appropriate personal protective equipment
- conducting pre-start checks on machinery
- starting, operating, monitoring and adjusting process equipment to achieve required quality outcomes
- taking corrective action in response to typical faults and inconsistencies
- completing workplace records
- shutting down equipment safely.

Throughout the process, individuals must:

- apply food safety procedures to work practices
- follow work health and safety and equipment operating procedures.

### Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- purpose and basic principles of the depositing process, including product preparation and conditioning requirements and product depositing
- basic operating principles of equipment, including main equipment components, status and purpose of guards, equipment operating capacities and applications, and the purpose and location of sensors and related feedback instrumentation
- services required and action to take if services are not available
- the flow of the depositing process and the effect of outputs on downstream processes

- quality requirements of materials for depositing and effect of variation on depositing process performance and outputs
- quality characteristics required of process outputs
- operating requirements and parameters and corrective action required where operation is outside specified operating parameters
- typical equipment faults and related causes, including signs and symptoms of faulty equipment and early warning signs of potential problems
- methods used to monitor the depositing process, including inspecting, measuring and testing as required by the process
- inspection or test points (control points) in the process and the related procedures and recording requirements
- contamination and food safety risks associated with the depositing process and related control measures
- common causes of variation and corrective action required
- work health and safety hazards and controls
- requirements of different shutdowns as appropriate to the depositing process and workplace production requirements, including emergency and routine shutdowns and procedures to follow in the event of a power outage
- isolation, lock out and tag out procedures and responsibilities
- procedures and responsibility for reporting production and performance information
- environmental issues and controls relevant to the depositing process, including waste and rework collection and handling procedures related to the process
- basic operating principles of process control including the relationship between control panels and systems and the physical equipment
- cleaning and sanitation procedures for confectionery depositing equipment.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - a workplace or an environment that accurately represents workplace conditions
- resources, equipment and materials:
  - personal protective clothing and equipment
  - process and related equipment and services
  - ingredients used in the preparation of high/low boil product as required
  - sampling schedules and test procedures and equipment
  - cleaning materials, equipment and procedures
- specifications:
  - work procedures, including advice on safe work practices, food safety, quality and environmental requirements
  - information on equipment capacity and operating parameters
  - recipe/batch instructions for confectionery depositing
  - specifications, control points and processing parameters

- confectionery depositing process and related equipment and services
- documentation and recording requirements and procedures.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volumes, including Implementation Guides, are available at VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>



## FBPCON2006 Operate a granulation and compression process

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 1.0.

### Application

This unit of competency describes the skills and knowledge required to set up, operate, adjust and shut down a granulation and compression process.

This unit applies to individuals who work under general supervision as production workers and are responsible for the operation and monitoring of granulation and compression equipment in a confectionery production environment.

All work must be carried out to comply with workplace procedures, in accordance with State/Territory work health and safety, and food safety regulations, legislation and standards that apply to the workplace.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

### Pre-requisite Unit

Nil

### Unit Sector

Confectionery (CON)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare the granulation equipment and process for operation	1.1 Confirm materials are available according to workplace procedure 1.2 Identify and confirm cleaning and maintenance requirements 1.3 Identify safety requirements and wear appropriate personal

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	<p>protective equipment ensuring correct fit</p> <p>1.4 Set the granulation process to production specifications according to equipment operating instructions</p> <p>1.5 Check and adjust equipment performance according to operating parameters</p> <p>1.6 Carry out pre-start checks according to operating procedures</p>
2. Prepare the compression process for operation	<p>2.1 Confirm granulation materials are available according to workplace procedure</p> <p>2.2 Set the compression process to production specifications</p> <p>2.3 Check and adjust equipment performance according to operating parameters</p> <p>2.4 Carry out pre-start checks according to operating procedures</p>
3. Operate and monitor the granulation and compression process	<p>3.1 Start and operate the process safely according to operating instructions and safety procedures</p> <p>3.2 Combine ingredients in specified sequence according to recipe and procedures</p> <p>3.3 Confirm granules of the required particle size are produced according to product specifications</p> <p>3.4 Ensure the compression process produces compressed product to specification</p> <p>3.5 Monitor equipment to identify variation in operating conditions</p> <p>3.6 Identify variation in equipment operation and report maintenance requirements according to workplace procedures</p> <p>3.7 Identify, rectify or report out-of-specification product or process outcomes according to workplace procedures</p> <p>3.8 Maintain the work area according to workplace procedures</p> <p>3.9 Maintain workplace records according to workplace procedures</p>
4. Shut down the compression process	<p>4.1 Identify the appropriate shutdown procedure according to operating instructions</p> <p>4.2 Shut down the process safely according to shutdown procedures</p> <p>4.3 Identify and report maintenance requirements according to workplace procedures</p>

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"> <li>Interprets and comprehends information contained in granulation and compression recipes, equipment operational instructions and workplace procedures</li> </ul>
Writing	<ul style="list-style-type: none"> <li>Enters operational data into granulation and compression production equipment accurately</li> </ul>
Numeracy	<ul style="list-style-type: none"> <li>Locates, recognises and applies basic calculations for numerical information found in granulation and compression recipes and production equipment</li> </ul>
Navigate the world of work	<ul style="list-style-type: none"> <li>Follows clear instructions within defined level of responsibility</li> <li>Recognises organisational expectations and follows explicit protocols and procedures, seeking clarification when required</li> </ul>
Interact with others	<ul style="list-style-type: none"> <li>Follows instructions and procedures regarding what and how to communicate when reporting on granulation and compression production issues</li> </ul>
Get the work done	<ul style="list-style-type: none"> <li>Follows clearly defined instructions and sequencing, and monitors own progress for granulation and compression production and seeks assistance when necessary</li> <li>Makes low-impact decisions around immediate clearly defined production tasks</li> </ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPCON2006 Operate a granulation and compression process	FDFCON2006A Operate a granulation and compression process	Updated to meet Standards for Training Packages  Minor changes to Performance Criteria for clarity	Equivalent unit

## Links

Companion Volumes, including Implementation Guides, are available at VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## Assessment Requirements for FBPCON2006 Operate a granulation and compression process

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 1.0.

### Performance Evidence

An individual demonstrating competency in this unit must satisfy all of the elements and performance criteria of this unit. There must be evidence that the individual has operated at least one granulation and compression process, including:

- checking the availability of materials
- selecting, fitting and using appropriate personal protective equipment
- conducting pre-start checks on machinery
- starting, operating, monitoring and adjusting process equipment to achieve required quality outcomes
- taking corrective action in response to typical faults and inconsistencies
- completing workplace records
- shutting down equipment.

Throughout the process, individuals must:

- apply food safety procedures to work practices
- follow work health and safety and equipment operating procedures.

### Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- purpose and basic principles of the granulation and compression process
- basic operating principles of equipment, including main equipment components, status and purpose of guards, equipment operating capacities and applications, and the purpose and location of sensors and related feedback instrumentation
- services required and action to take if services are not available
- the flow of the granulation and compression process and the effect of outputs on downstream processes

- quality requirements of ingredients for granulating and effect of variation on the granulation process
- quality requirements of granulated mass and effect of variation on compression process
- operating requirements of both granulation and compression, related parameters and corrective action required where operation is outside specified operating parameters
- typical equipment faults and related causes, including signs and symptoms of faulty equipment and early warning signs of potential problems
- methods used to monitor the granulation and compression process, including inspecting, measuring and testing as required by the process
- inspection or test points (control points) in the process and the related procedures and recording requirements
- contamination/food safety risks associated with the granulation and compression process and related control measures
- common causes of variation and corrective action required
- work health and safety hazards and controls
- requirements of different shutdowns as appropriate to the granulation and compression process and workplace production requirements, including emergency and routine shutdowns and procedures to follow in the event of a power outage
- isolation, lock out and tag out procedures and responsibilities
- procedures and responsibility for reporting production and performance information
- environmental issues and controls relevant to the granulation and compression process, including waste/rework collection and handling procedures related to the process
- basic operating principles of process control including the relationship between control panels and systems and the physical equipment
- cleaning and sanitation procedures for the granulation and compression process.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - a workplace or an environment that accurately represents workplace conditions
- resources, equipment and materials:
  - personal protective clothing and equipment
  - process and related equipment and services
  - ingredients used in the preparation of granulation and compression confectionary products as required
  - sampling schedules and test procedures and equipment
  - cleaning materials, equipment and procedures
- specifications:
  - granulation and compression work procedures, including advice on safe work practices, food safety, quality and environmental requirements
  - information on granulation and compression equipment capacity and operating parameters

- recipe/batch instructions
- specifications, control points and processing parameters
- documentation and recording requirements and procedures.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volumes, including Implementation Guides, are available at VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## FBPCON2007 Operate a panning process

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 1.0.

### Application

This unit of competency describes the skills and knowledge required to set up, operate, adjust and shut down a panning process to coat tablets and/or centres.

This unit applies to individuals who work under general supervision as production workers and are responsible for the operation and monitoring of panning equipment in a confectionery production environment.

All work must be carried out to comply with workplace procedures, in accordance with State/Territory work health and safety, and food safety regulations, legislation and standards that apply to the workplace.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

### Pre-requisite Unit

Nil

### Unit Sector

Confectionery (CON)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare the panning equipment and process for operation	1.1 Confirm materials are available according to workplace procedure 1.2 Identify safety requirements and wear appropriate personal protective equipment ensuring correct fit



Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	1.3 Select and prepare centres and coating according to batch or recipe instructions 1.4 Identify and confirm cleaning and maintenance requirements 1.5 Prepare the panning process to meet safety and production requirements 1.6 Check and adjust equipment performance according to operating parameters 1.7 Carry out pre-start checks according to operating procedures
2. Operate and monitor the panning process	2.1 Start and operate the process safely according to operating instructions and safety procedures 2.2 Monitor equipment to identify variation in operating conditions 2.3 Identify variation in equipment operation and report maintenance requirements according to workplace procedures 2.4 Confirm that specifications are met at each stage according to workplace procedures 2.5 Identify, rectify or report out-of-specification product or process outcomes according to workplace procedures 2.6 Maintain the work area according to workplace procedures 2.7 Maintain workplace records according to workplace procedures
3. Shut down the panning process	3.1 Identify the appropriate shutdown procedure according to operating instructions 3.2 Shut down the process safely according to shutdown procedures 3.3 Identify and report maintenance requirements according to workplace procedures

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"> <li>Interprets and comprehends information contained in recipes,</li> </ul>

Skill	Description
	equipment operational instructions and workplace procedures
Writing	<ul style="list-style-type: none"> <li>Enters operational data into panning production equipment accurately</li> </ul>
Numeracy	<ul style="list-style-type: none"> <li>Locates, recognises and applies basic calculations for numerical information found in recipes and panning production equipment</li> </ul>
Navigate the world of work	<ul style="list-style-type: none"> <li>Follows clear instructions within defined level of responsibility</li> <li>Recognises organisational expectations and follows explicit protocols and procedures, seeking clarification when required</li> </ul>
Interact with others	<ul style="list-style-type: none"> <li>Follows instructions and procedures regarding what and how to communicate when reporting on panning process issues</li> </ul>
Get the work done	<ul style="list-style-type: none"> <li>Follows clearly defined instructions and sequencing, and monitors own progress for panning process and seeks assistance when necessary</li> <li>Makes low-impact decisions around immediate clearly defined production tasks</li> </ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPCON2007 Operate a panning process	FDFCON2007A Operate a panning process	<p>Updated to meet Standards for Training Packages</p> <p>Minor changes to Performance Criteria for clarity</p>	Equivalent unit

## Links

Companion Volumes, including Implementation Guides, are available at VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# Assessment Requirements for FBPCON2007 Operate a panning process

## Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 1.0.

## Performance Evidence

An individual demonstrating competency in this unit must satisfy all of the elements and performance criteria of this unit. There must be evidence that the individual has operated at least one panning process, including:

- checking the availability of materials
- selecting, fitting and using appropriate personal protective equipment
- conducting pre-start checks on machinery
- starting, operating, monitoring and adjusting panning process equipment to achieve required quality outcomes
- taking corrective action in response to typical faults and inconsistencies
- completing workplace records
- shutting down equipment.

Throughout the process, individuals must:

- apply food safety procedures to work practices
- follow work health and safety procedures.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- purpose and basic principles of the panning process, including centre preparation and conditioning procedures and requirements, coating preparation and the stages in the panning process
- basic operating principles of equipment, including main equipment components, status and purpose of guards, equipment operating capacities and applications, and the purpose and location of sensors and related feedback instrumentation
- services required and action to take if services are not available
- the flow of the panning process and the effect of outputs on downstream processes

- conditioning requirements for centres and coatings
- quality characteristics of centres and coatings for use in the panning process and the effect of variation on panning process performance and outputs
- quality characteristics to be achieved by the process
- operating requirements and parameters and corrective action required where operation is outside specified operating parameters
- typical equipment faults and related causes, including signs and symptoms of faulty equipment and early warning signs of potential problems
- methods used to monitor the panning process, including inspecting, measuring and testing as required by the process
- inspection or test points (control points) in the process and the related procedures and recording requirements
- food safety/contamination risks associated with the process and related control measures
- common causes of variation and corrective action required
- work health and safety hazards and controls
- requirements of different shutdowns as appropriate to the panning process and workplace production requirements, including emergency and routine shutdowns and procedures to follow in the event of a power outage
- isolation, lock out and tag out procedures and responsibilities
- procedures and responsibility for reporting production and performance information
- environmental issues and controls relevant to the panning process, including waste and rework collection and handling procedures related to the process
- basic operating principles of process control including the relationship between control panels and systems and the physical equipment
- cleaning and sanitation procedures relevant to the panning process.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - a workplace or an environment that accurately represents workplace conditions
- resources, equipment and materials:
  - personal protective clothing and equipment
  - process and related equipment and services
  - ingredients used in the panning process
  - sampling schedules and test procedures and equipment
  - cleaning materials, equipment and procedures
- specifications:
  - granulation and compression work procedures, including advice on safe work practices, food safety, quality and environmental requirements
  - information on panning equipment capacity and operating parameters
  - recipe/batch instructions
  - specifications, control points and processing parameters

- documentation and recording requirements and procedures.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volumes, including Implementation Guides, are available at VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## FBPCON2008 Operate a chocolate refining process

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 1.0.

### Application

This unit of competency describes the skills and knowledge required to set up, operate, adjust and shut down a chocolate mixing and refining process.

This unit applies to individuals who work under general supervision as production workers and are responsible for the operation and monitoring of mixing and refining equipment used in the manufacture of chocolate.

All work must be carried out to comply with workplace procedures, in accordance with State/Territory work health and safety, and food safety regulations, legislation and standards that apply to the workplace.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

### Pre-requisite Unit

Nil

### Unit Sector

Confectionery (CON)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare to mix ingredients	1.1 Confirm materials are available according to workplace procedure 1.2 Identify safety requirements and wear appropriate personal protective equipment ensuring correct fit

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	<p>1.3 Enter processing or operating parameters according to equipment operating instructions</p> <p>1.4 Conduct pre-start checks according to operating parameters</p>
2. Mix ingredients ready for refining process	<p>2.1 Deliver ingredients and additives to the mixer in the required quantities and sequence to meet recipe specifications</p> <p>2.2 Start and operate the mixing process safely according to operating instructions and safety procedures</p> <p>2.3 Monitor equipment to identify variation in operating conditions</p> <p>2.4 Identify variation in equipment operation and report maintenance requirements according to workplace procedures</p> <p>2.5 Confirm that specifications are met at each stage according to workplace procedures</p> <p>2.6 Identify, rectify or report out-of-specification product or process outcomes according to workplace procedures</p>
3. Prepare the refining equipment and process for operation	<p>3.1 Confirm materials are available according to workplace procedures</p> <p>3.2 Identify and confirm cleaning and maintenance requirements</p> <p>3.3 Fit and adjust machine components and related attachments according to equipment operating instructions</p> <p>3.4 Enter processing or operating parameters according to equipment operating instructions</p> <p>3.5 Check and adjust equipment performance according to operating parameters</p> <p>3.6 Carry out pre-start checks according to operating procedures</p>
4. Operate and monitor the refining process	<p>4.1 Start and operate the refining process safely according to operating instructions and safety procedures</p> <p>4.2 Monitor equipment to identify variation in operating conditions</p> <p>4.3 Identify variation in equipment operation and report maintenance requirements according to workplace procedures</p> <p>4.4 Confirm that specifications are met at each stage</p> <p>4.5 Identify, rectify or report out-of-specification product or process outcomes according to workplace procedures</p> <p>4.6 Maintain the work area according to workplace procedures</p>

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	4.7 Maintain workplace records according to workplace procedures
5. Shut down the refining process	5.1 Identify the appropriate shutdown procedure according to operating instructions 5.2 Shut down the process safely according to shutdown procedures 5.3 Identify and report maintenance requirements according to workplace procedures

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"> <li>Interprets and comprehends information contained in chocolate refining recipes, equipment operational instructions and workplace procedures</li> </ul>
Writing	<ul style="list-style-type: none"> <li>Enters operational data into chocolate refining production equipment accurately</li> </ul>
Numeracy	<ul style="list-style-type: none"> <li>Locates, recognises and applies basic calculations for numerical information found in recipes and production equipment</li> </ul>
Navigate the world of work	<ul style="list-style-type: none"> <li>Follows clear instructions within defined level of responsibility</li> <li>Recognises organisational expectations and follows explicit protocols and procedures, seeking clarification when required</li> </ul>
Interact with others	<ul style="list-style-type: none"> <li>Follows instructions and procedures regarding what and how to communicate when reporting on chocolate refining issues</li> </ul>
Get the work done	<ul style="list-style-type: none"> <li>Follows clearly defined instructions and sequencing, and monitors own progress for chocolate production and seeks assistance when necessary</li> <li>Makes low-impact decisions around immediate clearly defined production tasks</li> </ul>



## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPCON2008 Operate a chocolate refining process	FDFCON2008A Operate a chocolate refining process	Updated to meet Standards for Training Packages  Minor changes to Performance Criteria for clarity	Equivalent unit

## Links

Companion Volumes, including Implementation Guides, are available at VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## Assessment Requirements for FBPCON2008 Operate a chocolate refining process

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 1.0.

### Performance Evidence

An individual demonstrating competency in this unit must satisfy all of the elements and performance criteria of this unit. There must be evidence that the individual has operated at least one chocolate refining process, including:

- checking the availability of materials
- selecting, fitting and using appropriate personal protective equipment
- conducting pre-start checks on machinery
- starting, operating, monitoring and adjusting process equipment to achieve required quality outcomes
- taking corrective action in response to typical faults and inconsistencies
- completing workplace records
- shutting down equipment.

Throughout the process, individuals must:

- apply food safety procedures to work practices
- follow work health and safety procedures.

### Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- purpose and basic principles of mixing and refining chocolate, including:
  - processing stages in chocolate making and the role of mixing, refining and pre-refining as appropriate
  - ingredients used in chocolate and those introduced during refining, including ingredients in different types of chocolate as appropriate to production requirements and an understanding of the quality requirements and role of each main ingredient
  - changes that occur in ingredients during mixing and refining
  - significance of particle size for product characteristics

- basic operating principles of equipment, including main equipment components, status and purpose of guards, equipment operating capacities and applications, and the purpose and location of sensors and related feedback instrumentation
- services required and action to take if services are not available
- the flow of the mixing and refining process and the effect of outputs on downstream processes
- quality requirements of ingredients used and effect of variation on process performance and outputs
- quality characteristics required of the refined mass
- operating requirements and parameters and corrective action required where operation is outside specified operating parameters
- typical equipment faults and related causes, including signs and symptoms of faulty equipment and early warning signs of potential problems
- methods used to monitor the mixing and refining process, including inspecting, measuring and testing as required by the process
- inspection or test points (control points) in the process and the related procedures and recording requirements
- contamination and food safety risks and related control measures
- common causes of variation and corrective action required
- work health and safety hazards and controls
- requirements of different shutdowns as appropriate to the mixing and refining process and workplace production requirements, including emergency and routine shutdowns and procedures to follow in the event of a power outage
- isolation, lock out and tag out procedures and responsibilities
- procedures and responsibility for reporting production and performance information
- environmental issues and controls relevant to the mixing and refining process, including waste and rework collection and handling procedures related to the process
- basic operating principles of process control including the relationship between control panels and systems and the physical equipment
- cleaning and sanitation procedures for chocolate refining equipment.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - a workplace or an environment that accurately represents workplace conditions
- resources, equipment and materials:
  - personal protective clothing and equipment
  - chocolate refining process and related equipment and services
  - ingredients used in the preparation of chocolate products
  - sampling schedules and test procedures and equipment
  - cleaning materials, equipment and procedures
- specifications:

- work procedures, including advice on safe work practices, food safety, quality and environmental requirements
- information on chocolate refining equipment capacity and operating parameters
- recipe/batch instructions
- specifications, control points and processing parameters
- documentation and recording requirements and procedures.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volumes, including Implementation Guides, are available at VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## FBPCON2009 Operate a starch moulding process

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 1.0.

### Application

This unit of competency describes the skills and knowledge required to set up, operate, adjust and shut down sugar moulded products using a starch moulding process.

This unit applies to individuals who work under general supervision as production workers and are responsible for the operation and monitoring of starch moulding equipment and processes in a confectionery production environment.

All work must be carried out to comply with workplace procedures, in accordance with State/Territory work health and safety, and food safety regulations, legislation and standards that apply to the workplace.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

### Pre-requisite Unit

Nil

### Unit Sector

Confectionery (CON)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare the starch moulding equipment and process for operation	1.1 Confirm materials are available according to workplace procedure 1.2 Condition starch for moulding according to production specifications

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	1.3 Identify and confirm cleaning and maintenance requirements 1.4 Identify safety requirements and wear appropriate personal protective equipment and ensure correct fit 1.5 Prepare starch mould to meet production requirements 1.6 Enter processing or operating parameters according to equipment operating instructions 1.7 Transfer ingredients or mix to moulding equipment 1.8 Check and adjust equipment performance according to operating parameters 1.9 Carry out pre-start checks according to operating procedures
2. Operate and monitor the starch moulding and removal process	2.1 Start and operate the process safely according to operating instructions and safety procedures 2.2 Monitor equipment to identify variation in operating conditions 2.3 Identify variation in equipment operation and report maintenance requirements according to workplace procedures 2.4 Confirm that specifications are met at each stage 2.5 Identify, rectify or report out-of-specification product or process outcomes according to workplace procedures 2.6 Maintain the work area according to workplace procedures 2.7 Maintain workplace records according to workplace procedures
3. Shut down the starch moulding process	3.1 Identify the appropriate shutdown procedure according to operating instructions 3.2 Shut down the process safely according to shutdown procedures 3.3 Identify and report maintenance requirements according to workplace procedures

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
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Skill	Description
Reading	<ul style="list-style-type: none"> <li>Interprets and comprehends information contained in starch moulding recipes, equipment operational instructions and workplace procedures</li> </ul>
Writing	<ul style="list-style-type: none"> <li>Enters operational data into starch moulding production equipment accurately</li> </ul>
Numeracy	<ul style="list-style-type: none"> <li>Locates, recognises and applies basic calculations for numerical information found in starch moulding equipment</li> </ul>
Navigate the world of work	<ul style="list-style-type: none"> <li>Follows clear instructions within defined level of responsibility</li> <li>Recognises organisational expectations and follows explicit protocols and procedures, seeking clarification when required</li> </ul>
Interact with others	<ul style="list-style-type: none"> <li>Follows instructions and procedures regarding what and how to communicate when reporting on starch moulding production issues</li> </ul>
Get the work done	<ul style="list-style-type: none"> <li>Follows clearly defined instructions and sequencing, and monitors own progress for starch moulding production and seeks assistance when necessary</li> <li>Makes low-impact decisions around immediate clearly defined production tasks</li> </ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPCON2009 Operate a starch moulding process	FDFCON2009A Operate a starch moulding process	Updated to meet Standards for Training Packages  Minor changes to Performance Criteria for clarity	Equivalent unit

## Links

Companion Volumes, including Implementation Guides, are available at VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# Assessment Requirements for FBPCON2009 Operate a starch moulding process

## Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 1.0.

## Performance Evidence

An individual demonstrating competency in this unit must satisfy all of the elements and performance criteria of this unit. There must be evidence that the individual has operated at least one starch moulding process, including:

- checking the availability of materials
- selecting, fitting and using appropriate personal protective equipment
- conducting pre-start checks on machinery
- starting, operating, monitoring and adjusting process equipment to achieve required quality outcomes
- taking corrective action in response to typical faults and inconsistencies
- completing workplace records
- shutting down equipment.

Throughout the process, individuals must:

- apply food safety procedures to work practices
- follow work health and safety procedures.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- purpose and basic principles of the starch moulding process, including an understanding of each stage:
  - starch mould preparation
  - product preparation and conditioning
  - product depositing
  - starch use and recovery cycle



- basic operating principles of equipment, including main equipment components, status and purpose of guards, equipment operating capacities and applications, and the purpose and location of sensors and related feedback instrumentation
- services required and action to take if services are not available
- the flow of the starch moulding and depositing process and the effect of outputs on downstream processes
- quality requirements of starch moulds and materials for depositing and effect of variation on starch moulding process performance and outputs, including the moisture absorption characteristics of starch and impact on the process
- quality characteristics required of process outputs
- operating requirements and parameters and corrective action required where operation is outside specified operating parameters
- typical equipment faults and related causes, including signs and symptoms of faulty equipment and early warning signs of potential problems
- methods used to monitor the starch moulding process, including inspecting, measuring and testing as required by the process
- inspection or test points (control points) in the process and the related procedures and recording requirements
- contamination and food safety risks associated with the starch moulding process and related control measures
- common causes of variation and corrective action required
- work health and safety hazards and controls
- requirements of different shutdowns as appropriate to the starch moulding process and workplace production requirements, including emergency and routine shutdowns and procedures to follow in the event of a power outage
- isolation, lock out and tag out procedures and responsibilities
- procedures and responsibility for reporting production and performance information
- environmental issues and controls relevant to the starch moulding process, including waste and rework collection and handling procedures related to the process
- basic operating principles of process control including the relationship between control panels and systems and the physical equipment
- cleaning and sanitation procedures for starch moulding equipment.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - a workplace or an environment that accurately represents workplace conditions
- resources, equipment and materials:
  - personal protective clothing and equipment
  - starch moulding process and related equipment and services
  - ingredients used in the preparation of starch moulding process
  - sampling schedules and test procedures and equipment

- cleaning materials, equipment and procedures
- specifications:
  - work procedures, including advice on safe work practices, food safety, quality and environmental requirements
  - information on starch moulding equipment capacity and operating parameters
  - recipe/batch instructions
  - specifications, control points and processing parameters
  - documentation and recording requirements and procedures.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volumes, including Implementation Guides, are available at VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## FBPDPR2001 Operate a butter churning process

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 1.0.

### Application

This unit of competency describes the skills and knowledge required to set up, operate, adjust and shut down a butter churning process to produce sweet cream butter product to specification.

This unit applies to individuals who apply basic operating principles to the operation and monitoring of butter churning equipment and processes in a dairy product production environment.

All work must be carried out to comply with workplace procedures, in accordance with State/Territory food safety, and work health and safety codes, regulations and legislation that apply to the workplace.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

### Pre-requisite Unit

Nil

### Unit Sector

Dairy processing (DPR)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare the butter churning equipment and process for operation	1.1 Confirm materials and personal protective equipment are available for operating requirements 1.2 Identify and confirm cleaning and maintenance requirements

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	<p>according to food safety requirements</p> <p>1.3 Fit personal protective equipment and adjust machine components and attachments needed for operating requirements</p> <p>1.4 Enter parameters required to meet safety and operating requirements</p> <p>1.5 Check and adjust equipment performance as required</p> <p>1.6 Conduct pre-start checks according to workplace procedures</p>
2. Operate and monitor the butter churning process	<p>2.1 Start up the butter churning process according to workplace procedures</p> <p>2.2 Monitor equipment to identify variation in operating conditions</p> <p>2.3 Identify variation in equipment operation and report maintenance requirements</p> <p>2.4 Confirm that specifications are met at each stage</p> <p>2.5 Identify, rectify or report out-of-specification product or process outcomes</p> <p>2.6 Maintain the work area according to workplace guidelines</p> <p>2.7 Enter information in workplace records in required format</p>
3. Shut down the butter churning process	<p>3.1 Identify the appropriate shutdown procedure</p> <p>3.2 Shut down the process safely according to workplace procedures</p> <p>3.3 Identify and report maintenance requirements according to workplace procedures</p>

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"> <li>Read and interpret standard operating procedures for the butter churning process</li> </ul>
Writing	<ul style="list-style-type: none"> <li>Complete records according to workplace guidelines using paper-based and/or electronic media</li> </ul>

Skill	Description
Numeracy	<ul style="list-style-type: none"><li>• Monitor agitation speeds, flow rates, temperature and ingredient addition systems for the butter churning process against production specifications</li></ul>
Navigate the world of work	<ul style="list-style-type: none"><li>• Apply workplace procedures to own role and responsibilities</li><li>• Understand main tasks, responsibilities and boundaries of own role, including use of personal protective clothing and equipment, housekeeping standards and environmental requirements</li><li>• Maintain a clean and hazard-free work area</li><li>• Maintain hygiene standards</li></ul>
Interact with others	<ul style="list-style-type: none"><li>• Report operational and safety information to relevant personnel using required communication method</li></ul>
Get the work done	<ul style="list-style-type: none"><li>• Solve routine problems according to workplace guidelines and using experience of past solutions</li></ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPDPR2001 Operate a butter churning process	FDFDP2001A Operate a butter churning process	Updated to meet Standards for Training Packages	Equivalent unit

## Links

Companion Volumes, including Implementation Guides, are available at VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# Assessment Requirements for FBPDPR2001 Operate a butter churning process

## Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 1.0.

## Performance Evidence

An individual demonstrating competency must satisfy all the elements and performance criteria in this unit.

There must be evidence that the individual has completed all steps required to set up, operate and monitor, and complete at least one butter churning process, including:

- conducted pre-start checks on machinery used for churning butter
- started, operated, monitored and adjusted butter churning process equipment to achieve required quality outcomes
- taken corrective action in response to typical faults and inconsistencies
- completed workplace records in required format
- applied safe work practices and identified workplace health and safety hazards and controls
- safely shut down equipment
- applied food safety procedures to work practices
- followed work health and safety procedures.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- purpose and basic principles of the butter churning process, including product preservation and the types of additives and ingredients used in the process
- basic operating principles of equipment, including:
  - main equipment components
  - status and purpose of guards
  - equipment operating capacities and applications
  - the purpose and location of sensors and related feedback instrumentation

- the flow of the butter churning process and the effect of product output on downstream processes
- quality characteristics to be achieved by the butter churning process
- contamination and food safety risks associated with the process and related control measures
- the effect of raw material characteristics on the butter churning process
- operating requirements and parameters, and corrective action required where operation is outside specified operating parameters
- typical equipment faults and related causes, including:
  - signs and symptoms of faulty equipment
  - early warning signs of potential problems
- techniques used to monitor the butter churning process, including inspecting, measuring and testing, as required by the process
- inspection or test points (control points) in the process and the related procedures and recording requirements
- common causes of variation and corrective action required
- work health and safety hazards and controls
- requirements of different shutdowns as appropriate to the process and workplace production requirements, including:
  - emergency and routine shutdowns
  - procedures to follow in the event of a power outage
- isolation, lock out and tag out procedures and responsibilities
- procedures and responsibility for reporting production and performance information
- environmental issues and controls relevant to the process, including waste collection and handling procedures
- basic operating principles of process control, including the relationship between control panels and systems and the physical equipment
- routine maintenance procedures for butter churning equipment
- cleaning and sanitation procedures for butter churning equipment.

## Assessment Conditions

Assessment of this unit of competency must take place under the following conditions:

- physical conditions:
  - skills must be demonstrated in a workplace setting or an environment that accurately represents workplace conditions
- resources, equipment and materials:
  - personal protective clothing and equipment
  - butter churning process and related equipment and services
  - materials required for the butter churning process
  - cleaning materials equipment and procedures
- specifications:

- work procedures, including advice on safe work practices, food safety, quality and environmental requirements
- stock flow systems, production schedules and batch or recipe instructions
- information on equipment capacity and operating parameters
- specifications, control points and processing parameters
- sampling schedules and test procedures and equipment
- routine preventative maintenance schedule
- documentation and recording requirements and procedures
- relationships:
  - interactions with team members and supervisors or realistic scenarios or roleplays.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volumes, including Implementation Guides, are available at VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>



## FBPDPR2002 Operate a butter oil process

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 1.0.

### Application

This unit of competency describes the knowledge and skills required to set up, operate, monitor and shut down the components of a butter oil process. This process, also known as an anhydrous milk fat (AMF) process, is used for the preparation of butter oil from either cream or melted butter.

This unit applies to individuals who apply basic operating principles to the operation and monitoring of butter oil equipment and processes in a dairy product production environment. Operators must be capable of operating a butter oil process using either cream or melted butter.

All work must be carried out to comply with workplace procedures, in accordance with State/Territory work health and safety, and food safety regulations, legislation and standards that apply to the workplace.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

### Pre-requisite Unit

Nil

### Unit Sector

Dairy processing (DPR)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare the butter oil	1.1 Confirm materials and personal protective equipment are available

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
equipment and process for operation	for operating requirements 1.2 Identify and confirm cleaning and maintenance requirements and status of high and low boil process equipment 1.3 Fit personal protective equipment and adjust machine components and attachments needed for operating requirements 1.4 Enter parameters required to meet safety and operating requirements 1.5 Check and adjust equipment performance as required 1.6 Conduct pre-start checks according to workplace requirements
2. Monitor the butter oil process operation	2.1 Start up the butter oil process according to workplace procedures 2.2 Monitor equipment to identify variation in operating conditions 2.3 Identify variation in equipment operation and report maintenance requirements 2.4 Confirm that specifications are met at each stage 2.5 Identify, rectify or report out-of-specification product or process outcomes 2.6 Maintain the work area according to workplace guidelines, work health and safety, and food safety requirements 2.7 Enter information in workplace records in required format
3. Shut down the butter oil process	3.1 Identify the appropriate shutdown procedure 3.2 Shut down the process safely according to workplace procedures 3.3 Identify and report maintenance requirements according to workplace procedures

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"> <li>Interpret and understand standard operating procedures for the butter oil process</li> </ul>

Skill	Description
Writing	<ul style="list-style-type: none"> <li>Complete records according to workplace guidelines in required format</li> </ul>
Numeracy	<ul style="list-style-type: none"> <li>Monitor data for pressure, water flow and temperature</li> </ul>
Navigate the world of work	<ul style="list-style-type: none"> <li>Understand main tasks, responsibilities and boundaries of own role, including use of personal protective equipment, hygiene and housekeeping standards and environmental care requirements</li> </ul>
Interact with others	<ul style="list-style-type: none"> <li>Report operational and safety information using required communication method</li> </ul>
Get the work done	<ul style="list-style-type: none"> <li>Follow workplace guidelines to address routine problems</li> </ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPDPR2002 Operate a butter oil process	FDFDP2002A Operate a butter oil process	Updated to meet Standards for Training Packages Prerequisites removed	No equivalent unit

## Links

Companion Volumes, including Implementation Guides, are available at VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# Assessment Requirements for FBPDPR2002 Operate a butter oil process

## Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 1.0.

## Performance Evidence

An individual demonstrating competency must satisfy all the elements and performance criteria in this unit.

There must be evidence that the individual has set up, operated and monitored, and shut down at least one butter oil process using cream or melted butter, including:

- safely conducted pre-start checks on machinery used for the process
- safely started, operated, monitored and adjusted butter oil process equipment to achieve required quality outcomes
- taken corrective action in response to typical faults and inconsistencies
- completed workplace records in required format
- safely shut down equipment
- applied food safety procedures to work practices
- followed work health and safety procedures.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- purpose and basic principles of each stage in the process, including an understanding of the stages, process flow and phases produced
- basic operating principles of equipment, including:
  - the principles of centrifuges and principles of evaporation
  - main equipment components
  - status and purpose of guards
  - equipment operating capacities and applications
  - the purpose and location of sensors and related feedback instrumentation
- services required for a butter oil process and action to take if services are not available

- the effect of outputs on downstream processes
- quality characteristics (fat content) to be achieved by the process
- quality requirements of in-feed materials (cream or butter) and the effect of variation in material quality on process performance
- operating requirements and parameters, and corrective action required where operation is outside specified operating parameters
- typical equipment faults and related causes, including:
  - signs and symptoms of faulty equipment
  - early warning signs of potential problems
- methods used to monitor the production process, including inspecting, measuring and testing as required by the process
- inspection or test points (control points) in the process and the related procedures and recording requirements
- common causes of variation and corrective action required, including how earlier stages in the process could contribute to cloudy product
- contamination and food safety risks, and related control measures
- work health and safety hazards and controls
- isolation, lock out and tag out procedures and responsibilities
- requirements of different shutdowns as appropriate to the process and workplace production requirements, including:
  - emergency and routine shutdowns
  - procedures to follow in the event of a power outage
- procedures and responsibility for reporting production and performance information
- environmental issues and controls relevant to the process, including waste or rework collection and handling procedures related to the process
- cleaning and sanitation procedures for the butter oil process.

## Assessment Conditions

Assessment of this unit of competency must take place under the following conditions:

- physical conditions:
  - a workplace setting or an environment that accurately represents workplace conditions
- resources, equipment and materials:
  - personal protective clothing and equipment
  - butter oil and related equipment and services
  - cream or butter to be processed
  - cleaning materials equipment and procedures
  - recording system or documents
- specifications:
  - work procedures, including advice on safe work practices, food safety, quality and documentation requirements
  - information on equipment capacity and operating parameters

- production schedule and batch instructions
- sampling schedules and test procedures and equipment
- documentation and recording requirements and procedures

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volumes, including Implementation Guides, are available at VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## FBPDPR2003 Operate a curd production and cutting process

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 1.0.

### Application

This unit of competency describes the knowledge and skills required to set up, operate, adjust and shut down a curd production and cutting process in cheese making.

This unit applies to individuals who apply basic operating principles to the operation and monitoring of a curd production and cutting process, and associated equipment in a dairy production environment.

All work must be carried out to comply with workplace procedures, in accordance with State/Territory food safety, and work health and safety codes, regulations and legislation that apply to the workplace.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

### Pre-requisite Unit

Nil

### Unit Sector

Dairy processing (DPR)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare the curd production and cutting process for operation	1.1 Confirm materials and personal protective equipment are available 1.2 Identify and confirm cleaning and maintenance requirements according to food safety requirements

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	1.3 Fit personal protective equipment and adjust machine components and attachments needed for operating requirements 1.4 Enter parameters required to meet safety and operating requirements 1.5 Check and adjust equipment performance as required 1.6 Conduct pre-start checks according to workplace requirements
2. Operate and monitor the curd production and cutting process	2.1 Start up the curd production and cutting process according to workplace procedures 2.2 Monitor equipment to identify variation in operating conditions 2.3 Identify variation in equipment operation and report maintenance requirements 2.4 Confirm that specifications are met at each stage 2.5 Identify, rectify or report out-of-specification product or process outcomes 2.6 Maintain the work area according to workplace guidelines, work health and safety, and food safety requirements 2.7 Enter information in workplace records in required format
3. Shut down the curd production and cutting process	3.1 Identify the appropriate shutdown procedure 3.2 Shut down the process safely according to workplace procedures 3.3 Identify and report maintenance requirements according to workplace procedures

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"> <li>Read and interpret standard operating procedures for the curd production and cutting process</li> </ul>
Writing	<ul style="list-style-type: none"> <li>Complete records according to workplace guidelines using paper-based and/or electronic media</li> </ul>



Skill	Description
Numeracy	<ul style="list-style-type: none"><li>• Confirm process remains within specification for speed, flow rates time and temperature</li></ul>
Navigate the world of work	<ul style="list-style-type: none"><li>• Apply workplace procedures to own role and responsibilities</li><li>• Understand main tasks, responsibilities and boundaries of own role, including use of personal protective clothing and equipment, housekeeping standards and environmental care requirements</li><li>• Maintain a clean and hazard-free work area</li><li>• Maintain hygiene standards</li></ul>
Interact with others	<ul style="list-style-type: none"><li>• Report operational and safety information to relevant personnel using required communication method</li></ul>
Get the work done	<ul style="list-style-type: none"><li>• Solve routine problems according to workplace guidelines and using experience of past solutions</li></ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPDPR2003 Operate a curd production and cutting process	FDFDP2003A Operate a curd production and cutting process	Updated to meet Standards for Training Packages	Equivalent unit

## Links

Companion Volumes, including Implementation Guides, are available at VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## Assessment Requirements for FBPDPR2003 Operate a curd production and cutting process

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 1.0.

### Performance Evidence

An individual demonstrating competency must satisfy all the elements and performance criteria in this unit.

There must be evidence that, on at least one occasion, the individual has set up, operated and monitored, and shut down a curd production and cutting process, including:

- conducted pre-start checks on machinery used for curd production and cutting
- started, operated, monitored and adjusted the curd production and cutting process equipment to achieve required quality outcomes
- taken corrective action in response to typical faults and inconsistencies
- completed workplace records in required format
- applied safe work practices and identified work health and safety hazards and controls
- safely shut down equipment
- applied food safety procedures to work practices.

### Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- purpose and basic principles of the curd production and cutting process, including the methods used to coagulate milk for cheese making
- basic operating principles of equipment, including:
  - main equipment components
  - status and purpose of guards
  - equipment operating capacities and applications
  - the purpose and location of sensors and related feedback instrumentation
- the flow of the curd production and cutting process, and the effect of product output on downstream processes

- stages and changes that occur during curd production, including physical and chemical changes that occur during curd production and cutting
- quality characteristics required for curd production and cutting
- factors that affect curd firmness
- contamination and food safety risks associated with the process and related control measures
- the effect of raw material characteristics on curd production and cutting
- operating requirements and parameters, and corrective action required where operation is outside specified operating parameters
- typical equipment faults and related causes, including:
  - signs and symptoms of faulty equipment
  - early warning signs of potential problems
- techniques used to monitor the curd production and cutting process, including inspecting, measuring and testing as required by the process
- inspection or test points (control points) in the process and the related procedures and recording requirements
- common causes of variation and corrective action required
- work health and safety hazards and controls, including the limitations of protective clothing and equipment relevant to the work process
- requirements of different shutdowns as appropriate to the curd production and cutting process and workplace production requirements, including:
  - emergency and routine shutdowns
  - procedures to follow in the event of a power outage
- isolation, lock out and tag out procedures and responsibilities
- procedures and responsibility for reporting production and performance information
- environmental issues and controls relevant to the curd production and cutting process, including waste collection and handling procedures
- basic operating principles of process control, including the relationship between control panels and systems and the physical equipment
- routine maintenance procedures
- cleaning and sanitation procedures for the curd production and cutting process.

## Assessment Conditions

Assessment of this unit of competency must take place under the following conditions:

- physical conditions:
  - a workplace or an environment that accurately represents workplace conditions
- resources, equipment and materials:
  - personal protective clothing and equipment
  - curd production and cutting process and related equipment and services
  - materials required for a curd production and cutting process
  - cleaning materials equipment and procedures

- specifications:
  - work procedures, including advice on safe work practices, food safety, quality and environmental requirements
  - stock flow systems, production schedules and recipe instructions
  - information on equipment capacity and operating parameters
  - specifications, control points and processing parameters
  - sampling schedules and test procedures and equipment
  - documentation and recording requirements and procedures
  - routine preventative maintenance schedule
- relationships:
  - interactions with team members and supervisors or realistic scenarios or roleplays.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volumes, including Implementation Guides, are available at VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## FBPDPR2004 Operate a cooling and hardening process

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 1.0.

### Application

This unit of competency describes the knowledge and skills required to set up, operate, adjust and shut down a process to cool and harden dairy products to specification.

This unit applies to individuals who apply basic operating principles to the operation and monitoring of equipment and processes used to cool and harden dairy products in a dairy products production environment.

All work must be carried out to comply with workplace procedures, in accordance with State/Territory food safety, and work health and safety codes, regulations and legislation that apply to the workplace.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

### Pre-requisite Unit

Nil

### Unit Sector

Dairy processing (DPR)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare the cooling and hardening process for operation	1.1 Confirm materials and personal protective equipment are available for operating requirements 1.2 Identify and confirm cleaning and maintenance requirements

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	<p>according to food safety requirements</p> <p>1.3 Fit personal protective equipment and adjust machine components and attachments needed for operating requirements</p> <p>1.4 Enter parameters required to meet safety and operating requirements</p> <p>1.5 Check and adjust equipment performance as required</p> <p>1.6 Conduct pre-start checks according to workplace requirements</p>
2. Operate and monitor the cooling and hardening process	<p>2.1 Start up the cooling and hardening process according to workplace procedures</p> <p>2.2 Monitor equipment to identify variation in operating conditions</p> <p>2.3 Identify variation in equipment operation and report maintenance requirements</p> <p>2.4 Confirm that specifications are met at each stage</p> <p>2.5 Identify, rectify or report out-of-specification product or process outcomes</p> <p>2.6 Maintain the work area according to workplace guidelines, work health and safety and food safety requirements</p> <p>2.7 Enter information in workplace records in required format</p>
3. Shut down the cooling and hardening process	<p>3.1 Identify the appropriate shutdown procedure</p> <p>3.2 Shut down the process safely according to workplace procedures</p> <p>3.3 Identify and report maintenance requirements according to workplace procedures</p>

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"> <li>Read and interpret standard operating procedures for the cooling and hardening process</li> </ul>

Skill	Description
Writing	<ul style="list-style-type: none"> <li>Complete records according to workplace guidelines using paper-based and/or electronic media</li> </ul>
Numeracy	<ul style="list-style-type: none"> <li>Confirm process remains within specification for time, temperature, flow rates and pressure</li> <li>Interpret recording devices and gauges</li> </ul>
Navigate the world of work	<ul style="list-style-type: none"> <li>Apply workplace procedures to own role and responsibilities</li> <li>Understand main tasks, responsibilities and boundaries of own role, including use of personal protective clothing and equipment, housekeeping standards and environmental care requirements</li> <li>Maintain a clean and hazard-free work area</li> <li>Maintain hygiene standards</li> </ul>
Interact with others	<ul style="list-style-type: none"> <li>Report operational and safety information to relevant personnel using required communication method</li> </ul>
Get the work done	<ul style="list-style-type: none"> <li>Solve routine problems according to workplace guidelines and using experience of past solutions</li> </ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPDPR2004 Operate a cooling and hardening process	FDFDP2004A Operate a cooling and hardening process	Updated to meet Standards for Training Packages	Equivalent unit

## Links

Companion Volumes, including Implementation Guides, are available at VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## Assessment Requirements for FBP DPR2004 Operate a cooling and hardening process

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 1.0.

### Performance Evidence

An individual demonstrating competency must satisfy all the elements and performance criteria in this unit.

There must be evidence that, on at least one occasion, the individual has set up, operated and monitored, and shut down a cooling and hardening process, including:

- conducted pre-start checks on machinery used for cooling and hardening dairy products
- started, operated, monitored and adjusted the cooling and hardening process equipment to achieve required quality outcomes
- taken corrective action in response to typical faults and inconsistencies
- completed workplace records in required format
- applied safe work practices and identified work health and safety hazards and controls
- safely shut down equipment
- applied food safety procedures to work practices.

### Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- purpose and basic principles of the cooling and hardening process, including:
  - the principles of heat transfer
  - the difference between latent heat energy transfer and sensible heat energy transfer
- basic operating principles of equipment, including:
  - main equipment components
  - status and purpose of guards
  - equipment operating capacities and applications
  - the purpose and location of sensors and related feedback instrumentation



- the flow of the cooling and hardening process and the effect of product output on downstream processes
- stages and changes which occur during cooling and hardening
- quality characteristics to be achieved by cooling and hardening process
- effect of in-feed characteristics on cooling and hardening process performance
- operating requirements and parameters, and corrective action required where operation is outside specified operating parameters
- typical equipment faults and related causes, including:
  - signs and symptoms of faulty equipment
  - early warning signs of potential problems
- techniques used to monitor the cooling and hardening process, such as inspecting, measuring and testing as required by the process
- inspection or test points (control points) in the process, and the related procedures and recording requirements
- common causes of variation and corrective action required
- contamination and food safety risks associated with the process and related control measures
- work health and safety hazards and controls
- requirements of different shutdowns as appropriate to the process and workplace production requirements, including:
  - emergency and routine shutdowns
  - procedures to follow in the event of a power outage
- isolation, lock out and tag out procedures and responsibilities
- procedures and responsibility for reporting production and performance information
- environmental issues and controls relevant to the cooling and hardening process, including waste collection and handling procedures
- basic operating principles of process control, including the relationship between control panels and systems and the physical equipment
- routine maintenance procedures
- cleaning and sanitation procedures for cooling and hardening equipment.

## Assessment Conditions

Assessment of this unit of competency must take place under the following conditions:

- physical conditions:
  - a workplace or an environment that accurately represents workplace conditions
- resources, equipment and materials:
  - personal protective clothing and equipment
  - cooling and hardening process and related equipment and services
  - cleaning materials equipment and procedures
- specifications:

- work procedures, including advice on safe work practices, food safety, quality and environmental requirements
- stock flow systems, production schedules and batch or recipe instructions
- information on equipment capacity and operating parameters
- specifications, control points and processing parameters
- sampling schedules and test procedures and equipment
- documentation and recording requirements and procedures
- relationships:
  - interactions with team members and supervisors or realistic scenarios or roleplays.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volumes, including Implementation Guides, are available at VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# FBPDPR2005 Operate a cheese pressing and moulding process

## Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 1.0.

## Application

This unit of competency describes the knowledge and skills required to set up, operate, adjust and shut down a pressing and moulding process to produce cheese to specifications.

This unit applies to individuals who apply basic operating principles to the operation and monitoring of pressing and moulding equipment and processes in a cheese production environment.

All work must be carried out to comply with workplace procedures, in accordance with State/Territory food safety, and work health and safety codes, regulations and legislation that apply to the workplace.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

## Pre-requisite Unit

Nil

## Unit Sector

Dairy processing (DPR)

## Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare the pressing and moulding equipment and process for operation	1.1 Confirm materials and personal protective equipment are available for operating requirements 1.2 Identify and confirm cleaning and maintenance requirements

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	<p>according to food safety requirements</p> <p>1.3 Fit personal protective equipment and adjust machine components and attachments needed for operating requirements</p> <p>1.4 Enter parameters required to meet safety and operating requirement</p> <p>1.5 Check and adjust equipment performance as required</p> <p>1.6 Conduct pre-start checks according to workplace procedures</p>
2. Operate and monitor the pressing and moulding process	<p>2.1 Start up the pressing and moulding process according to workplace procedures</p> <p>2.2 Monitor equipment to identify variation in operating conditions</p> <p>2.3 Identify variation in equipment operation and report maintenance requirements</p> <p>2.4 Confirm that specifications are met at each stage</p> <p>2.5 Identify, rectify or report out-of-specification product or process outcomes</p> <p>2.6 Maintain the work area according to workplace guidelines, work health and safety and food safety requirements</p> <p>2.7 Enter information in workplace records in required format</p>
3. Shut down the pressing and moulding process	<p>3.1 Identify the appropriate shutdown procedure</p> <p>3.2 Shut down the process safely according to workplace procedures</p> <p>3.3 Identify and report maintenance requirements according to workplace procedures</p>

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"> <li>Read and interpret standard operating procedures for the cheese pressing and moulding process</li> </ul>

Skill	Description
Writing	<ul style="list-style-type: none"> <li>Complete records according to workplace guidelines using paper-based and/or electronic media</li> </ul>
Numeracy	<ul style="list-style-type: none"> <li>Confirm process remains within specification for equipment speeds, flow rates, time and temperature</li> </ul>
Navigate the world of work	<ul style="list-style-type: none"> <li>Apply workplace procedures to own role and responsibilities</li> <li>Understand main tasks, responsibilities and boundaries of own role, including use of personal protective clothing and equipment, housekeeping standards and environmental care requirements</li> <li>Maintain a clean and hazard-free work area</li> <li>Maintain hygiene standards</li> </ul>
Interact with others	<ul style="list-style-type: none"> <li>Report operational and safety information to relevant personnel using required communication method</li> </ul>
Get the work done	<ul style="list-style-type: none"> <li>Solve routine problems according to workplace guidelines and using experience of past solutions</li> </ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPDPR2005 Operate a cheese pressing and moulding process	FDFDP2005A Operate a cheese pressing and moulding process	Updated to meet Standards for Training Packages	Equivalent unit

## Links

Companion Volumes, including Implementation Guides, are available at VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# Assessment Requirements for FBPDPR2005 Operate a cheese pressing and moulding process

## Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 1.0.

## Performance Evidence

An individual demonstrating competency must satisfy all the elements and performance criteria in this unit.

There must be evidence that, on at least one occasion, the individual has set up, operated and monitored, and shut down a cheese pressing and moulding process, including:

- conducted pre-start checks on machinery used for pressing and moulding cheese
- started, operated, monitored and adjusted the cheese pressing and moulding process equipment to achieve required quality outcomes
- taken corrective action in response to typical faults and inconsistencies
- completed workplace records in required format
- applied safe work practices and identified work health and safety hazards and controls
- safely shut down equipment
- applied food safety procedures to work practices.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- purpose and basic principles of the pressing and moulding process
- basic operating principles of equipment, including:
  - main equipment components
  - equipment status and purpose of guards
  - operating capacities and applications
  - the purpose and location of sensors and related feedback instrumentation
- the flow of the pressing and moulding process, and the effect of product output on downstream processes
- quality characteristics to be achieved by the pressing and moulding process

- effect of raw material characteristics on pressing and moulding process performance
- contamination and food safety risks associated with the process and related control measures
- operating requirements and parameters, and corrective action required where operation is outside specified operating parameters
- typical equipment faults and related causes, including:
  - signs and symptoms of faulty equipment
  - early warning signs of potential problems
- techniques used to monitor the pressing and moulding process, including inspecting, measuring and testing as required by the process
- inspection or test points (control points) in the process and the related procedures and recording requirements
- common causes of variation and corrective action required
- work health and safety hazards and controls
- requirements of different shutdowns as appropriate to the process and workplace production requirements, including:
  - emergency and routine shutdowns
  - procedures to follow in the event of a power outage
- isolation, lock out and tag out procedures and responsibilities
- procedures and responsibility for reporting production and performance information
- environmental issues and controls relevant to the process, including waste collection and handling procedures
- basic operating principles of process control, including the relationship between control panels and systems and the physical equipment
- routine maintenance procedures for cheese pressing and moulding equipment
- cleaning and sanitation procedures for cheese pressing and moulding equipment.

## Assessment Conditions

Assessment of this unit of competency must take place under the following conditions:

- physical conditions:
  - a workplace or an environment that accurately represents workplace conditions
- resources, equipment and materials:
  - personal protective clothing and equipment
  - pressing and moulding process and related equipment and services
  - cleaning materials equipment and procedures
- specifications:
  - work procedures, including advice on safe work practices, food safety, quality and environmental requirements
  - stock flow systems, production schedules and batch or recipe instructions
  - information on equipment capacity and operating parameters
  - specifications, control points and processing parameters

- sampling schedules and test procedures and equipment
- routine preventative maintenance schedule
- documentation and recording requirements and procedures
- relationships:
  - interactions with team members and supervisors or realistic scenarios or roleplays.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

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<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>



## FBPDPR2006 Operate a fermentation process

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 1.0.

### Application

This unit of competency describes the knowledge and skills required to set up, operate, adjust and shut down a fermentation process typically used in the production of dairy products.

This unit applies to individuals who apply basic operating principles to the operation and monitoring of machines and equipment used for the fermentation of dairy products in a dairy production environment.

All work must be carried out to comply with workplace procedures, in accordance with State/Territory food safety, and work health and safety codes, regulations and legislation that apply to the workplace.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

### Pre-requisite Unit

Nil

### Unit Sector

Dairy processing (DPR)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare the fermentation equipment and process for operation	1.1 Confirm materials and personal protective equipment are available 1.2 Identify and confirm cleaning and maintenance requirements according to food safety requirements

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	1.3 Fit personal protective equipment and adjust machine components and attachments needed for operating requirements 1.4 Enter parameters required to meet safety and operating requirements 1.5 Check and adjust equipment performance as required 1.6 Conduct pre-start checks according to workplace procedures
2. Monitor the fermentation process operation	2.1 Start up the fermentation process according to workplace procedures 2.2 Monitor equipment to identify variation in operating conditions 2.3 Identify variation in equipment operation and report maintenance requirements 2.4 Confirm that specifications are met at each stage 2.5 Identify, rectify or report out-of-specification product or process outcomes 2.6 Maintain the work area according to workplace guidelines, work health and safety and food safety requirements 2.7 Enter information in workplace records in required format
3. Shut down the fermentation process	3.1 Identify the appropriate shutdown procedure 3.2 Shut down the process according to workplace procedures 3.3 Identify and report maintenance requirements

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"> <li>Read and interpret standard operating procedures for the fermentation process</li> </ul>
Writing	<ul style="list-style-type: none"> <li>Complete records according to workplace guidelines using paper-based and/or electronic media</li> </ul>

Skill	Description
Numeracy	<ul style="list-style-type: none"><li>• Confirm process remains within specifications for time and temperature, flow rates and fermenter speeds</li></ul>
Navigate the world of work	<ul style="list-style-type: none"><li>• Apply workplace procedures to own role and responsibilities</li><li>• Understand main tasks, responsibilities and boundaries of own role, including use of personal protective clothing and equipment, housekeeping standards and environmental care requirements</li><li>• Maintain a clean and hazard-free work area</li><li>• Maintain hygiene standards</li></ul>
Interact with others	<ul style="list-style-type: none"><li>• Report operational and safety information to relevant personnel using required communication method</li></ul>
Get the work done	<ul style="list-style-type: none"><li>• Solve routine problems according to workplace guidelines and using experience of past solutions</li></ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPDPR2006 Operate a fermentation process	FDFDP2006A Operate a fermentation process	Updated to meet Standards for Training Packages	Equivalent unit

## Links

Companion Volumes, including Implementation Guides, are available at VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## Assessment Requirements for FBPDPR2006 Operate a fermentation process

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 1.0.

### Performance Evidence

An individual demonstrating competency in this unit must satisfy all the elements and performance criteria of this unit.

There must be evidence that, on at least one occasion, the individual has set up, operated and monitored, and shut down a fermentation process, including:

- conducted pre-start checks on machinery used for fermentation of dairy products
- started, operated, monitored and adjusted fermentation process equipment to achieve required quality outcomes
- taken corrective action in response to typical faults and inconsistencies
- completed workplace records in required format
- applied safe work practices and identified work health and safety hazards and controls
- safely shut down equipment
- applied food safety procedures to work practices.

### Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- purpose and basic principles of the fermentation process, including the stages and reactions that occur during fermentation
- basic operating principles of equipment, including:
  - main equipment components
  - status and purpose of guards
  - equipment operating capacities and applications
  - the purpose and location of sensors and related feedback instrumentation
- services required and action to take if services are not available
- the flow of this process and the effect of outputs on downstream processes

- quality characteristics to be achieved by the fermentation process
- types of starters used and their role in the fermentation process
- quality requirements of materials and effect of variation on process performance
- operating requirements and parameters, and corrective action required where operation is outside specified operating parameters
- typical equipment faults and related causes, including:
  - signs and symptoms of faulty equipment
  - early warning signs of potential problems
- methods used to monitor the fermentation process, including inspecting, measuring and testing as required by the process
- inspection or test points (control points) in the process and the related procedures and recording requirements
- contamination and food safety risks associated with the process and related control measures
- common causes of variation and corrective action required
- work health and safety hazards and controls, including the limitations of protective clothing and equipment relevant to the work process
- requirements of different shutdowns as appropriate to the process and workplace production requirements, including:
  - emergency and routine shutdowns
  - procedures to follow in the event of a power outage
- isolation, lock out and tag out procedures and responsibilities
- procedures and responsibility for reporting production and performance information
- environmental issues and controls relevant to the process, including waste or rework collection and handling procedures
- basic operating principles of process control, including the relationship between control panels and systems and the physical equipment
- routine maintenance procedures for fermentation equipment
- cleaning procedures for fermentation equipment.

## Assessment Conditions

Assessment of this unit of competency must take place under the following conditions:

- physical conditions:
  - a workplace or an environment that accurately represents workplace conditions
- resources, equipment and materials:
  - personal protective clothing and equipment
  - fermentation and related equipment and services
  - materials to be fermented
  - cleaning materials equipment and procedures
- specifications:

- work procedures, including advice on safe work practices, food safety, quality and environmental requirements
- information on equipment capacity and operating parameters
- production schedules and batch instructions
- specifications, control points and processing parameters
- sampling schedules and test procedures and equipment
- documentation and recording requirements and procedures
- relationships:
  - interactions with team members and supervisors or realistic scenarios or roleplays.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volumes, including Implementation Guides, are available at VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## FBPEGG2001 Work on an egg grading floor

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package version 1.0.

### Application

This unit of competency describes the skills and knowledge required to determine basic egg characteristics and quality principles in egg production and packing.

This unit applies to individuals who work in egg grading and packing facilities in a poultry production environment in either an operations or quality role.

All work must be carried out to comply with workplace procedures, in accordance with State/Territory work health and safety, and food safety regulations, legislation and standards that apply to the workplace.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

### Pre-requisite Unit

Nil

### Unit Sector

Egg (EGG)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare for egg grading operation	1.1 Identify key work locations and egg grading and packaging equipment on egg grading floor 1.2 Identify grades of eggs packed by the workplace 1.3 Identify trays and packaging used for all orders and location of

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	<p>best before dates on trays and cartons</p> <p>1.4 Identify storage locations for packed orders prior to despatch</p> <p>1.5 Identify work health and safety procedures for egg grading, including use of personal protection equipment</p> <p>1.6 Identify workplace environmental guidelines for egg grading floor operations</p>
2. Recognise egg grades and common egg faults	<p>2.1 Identify different grades of fresh eggs</p> <p>2.2 Recognise gross, hairline, star cracks, black rot, dirt and other faults in eggs</p> <p>2.3 Identify defects though the candling process</p>
3. Operate on the egg grading floor	<p>3.1 Confirm method for egg cleaning</p> <p>3.2 Identify key risks to food safety on egg grading floor, including hazard analysis critical control points (HACCP) plan and egg grading floor critical control points</p> <p>3.3 Confirm steps and locations for detecting eggs with gross defects</p> <p>3.4 Identify quality system, including sampling program and tests conducted both on and off the grading floor</p> <p>3.5 Identify and confirm steps and requirements for the packaging process, including process for printing best before date</p> <p>3.6 Confirm temperature and humidity requirements for storing eggs</p>

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"> <li>Interprets standard operating procedures required for working on an egg grading floor</li> </ul>
Numeracy	<ul style="list-style-type: none"> <li>Identifies grades of eggs by weight and size</li> </ul>
Navigate the world of	<ul style="list-style-type: none"> <li>Applies workplace procedures to own role and responsibilities</li> <li>Understands main tasks, responsibilities and boundaries of own</li> </ul>



Skill	Description
work	role, including use of personal protective clothing and equipment, housekeeping standards and environmental care requirements <ul style="list-style-type: none"><li>• Maintains hygiene standards</li></ul>
Interact with others	<ul style="list-style-type: none"><li>• Discuss operational and safety information with relevant personnel using required communication method</li></ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPEGG2001 Work on an egg grading floor	FDFPO2009A Work in an egg grading floor	Updated to meet Standards for Training Packages	Equivalent unit

## Links

Companion Volumes, including Implementation Guides, are available at VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# Assessment Requirements for FBPEGG2001 Work on an egg grading floor

## Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package version 1.0.

## Performance Evidence

An individual demonstrating competency must satisfy all of the elements and performance criteria in this unit. There must be evidence that, on at least one occasion, the individual has:

- identified egg receiving, denester, backpack, pulping and storage equipment and workstations
- identified types and grades of eggs packed within the organisation
- recognised gross, hairline and star cracks, black rot, dirt and other faults in eggs
- identified defects in eggs using the candling process
- identified food safety risks on egg grading floor and critical control points
- identified order control system and trays and cartons used for orders
- identified temperature, humidity and other storage requirements for eggs
- applied food safety procedures to work practices
- followed work health and safety procedures.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- functions of key work areas, including washing equipment, weighing and automatic fault detection equipment, lanes, denesters, backpack side, quality room and cool rooms
- egg components and purpose, including shell, shell membranes, yolk, albumen and air cell
- common and difference between egg grades
- importance of early grading and packing eggs on freshness
- key egg faults, including types of cracks, faulty colouring, faulty shapes and blood and other inclusions, and the methods used to detect faults
- purpose and methods for egg cleaning
- temperature and humidity requirements for storing eggs and effects of variation from these requirements
- contamination and food safety risks, and related control measures

- environmental issues and controls relevant to the process, including waste or rework collection and handling procedures related to the process
- work health and safety procedures for egg grading, including the use of personal protection equipment
- workplace cleaning and sanitation procedures relevant to the egg grading process.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - an egg grading and packing workplace setting or an environment that accurately represents workplace conditions
- resources, equipment and materials:
  - personal protective clothing and equipment
  - egg washing, grading and packing equipment
  - eggs of different grades and condition including eggs demonstrating most common faults
- specifications:
  - work procedures, including advice on safe work practices, food safety, quality and environmental requirements
- relationships:
  - interactions with team members and supervisors.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volumes, including Implementation Guides, are available at VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# FBPEGG2002 Operate egg grading and packing floor equipment

## Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package version 1.0.

## Application

This unit of competency describes the skills and knowledge required to operate and monitor specialist egg washing, grading and packaging equipment.

This unit applies to individuals who apply basic operating principles to the operation and monitoring of equipment directly in contact with eggs including washing station, denester and backpack workstations.

All work must be carried out to comply with workplace procedures, in accordance with State/Territory work health and safety, and food safety regulations, legislation and standards that apply to the workplace.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

## Pre-requisite Unit

FBPEGG2001 Work on an egg grading floor

## Unit Sector

Egg (EGG)

## Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Operate and monitor egg receiving equipment	1.1 Check production schedules for egg type requirements 1.2 Wear appropriate personal protective equipment and ensure

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	<p>correct fit</p> <p>1.3 Conduct pre-start checks on egg receiving equipment according to operator instructions</p> <p>1.4 Place eggs requiring manual loading onto conveyor</p> <p>1.5 Check conveyor, finger sorter and other egg receiving equipment for jams and faults</p> <p>1.6 Check primary and secondary wash and rinse machines and dryers for correct operation</p> <p>1.7 Check passage of eggs through crack and leak detectors, and weighing stations to confirm that faulty eggs are being identified and dropped out</p> <p>1.8 Monitor sorting of eggs into different size lots for conformance to enterprise and job specification</p>
2. Operate and monitor denester side egg packing lanes	<p>2.1 Load printed packaging onto lane take off holders according to production instructions or orders</p> <p>2.2 Supply the correct number of size and grade of egg pallets and packs to each lane according to customer order</p> <p>2.3 Enter packing order requirements, including number of eggs per carton or tray, and number of cartons or trays per order type into each lane through key pad terminal</p> <p>2.4 Undertake mechanical setting of the lane machinery for different size trays where required</p> <p>2.5 Check setting of best before date printer</p> <p>2.6 Monitor lanes to ensure that lanes do not run out of egg trays</p>
3. Operate and monitor backpack side egg packing lanes	<p>3.1 Determine number of cartons per order from lane boards or other job instructions</p> <p>3.2 Monitor packing lanes to ensure trays are being packed into correct outer packaging, and rectify or report any out-of-specification outcomes according to workplace requirements</p> <p>3.3 Stack trays not requiring packing into outer containers</p> <p>3.4 Undertake quality checks of eggs throughout all stages of process for compliance with food safety standards and workplace requirements</p>
4. Process damaged and faulty eggs	<p>4.1 Collect and transport containers of faulty eggs from washers and damaged eggs from packing machines to liquid egg processing station</p>

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	<p>4.2 Sort eggs into edible and inedible waste product according to food safety standards and workplace requirements</p> <p>4.3 Weigh and record edible waste product within specified time intervals</p> <p>4.4 Feed faulty and damaged edible eggs to egg breaking or egg pulping machine</p> <p>4.5 Start egg pulping machine according to workplace procedures</p> <p>4.6 Monitor temperature of egg pulping machines and report any over-temperatures</p> <p>4.7 Monitor and adjust speed of pumps to suit pulping and container filling operations</p> <p>4.8 Weigh, record and dispose of inedible egg waste product according to workplace procedures</p>

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"> <li>Interpret standard operating procedures for operating egg grading and packing floor equipment</li> </ul>
Writing	<ul style="list-style-type: none"> <li>Complete records according to workplace guidelines</li> </ul>
Numeracy	<ul style="list-style-type: none"> <li>Monitor supply and flow of eggs through washing and packing equipment</li> </ul>
Navigate the world of work	<ul style="list-style-type: none"> <li>Apply workplace procedures to own role and responsibilities</li> <li>Understand main tasks, responsibilities and boundaries of own role, including use of personal protective clothing and equipment, housekeeping standards and environmental care requirements</li> <li>Maintain a clean and hazard free work area</li> <li>Maintain hygiene standards</li> </ul>
Interact with others	<ul style="list-style-type: none"> <li>Report operational information to relevant personnel using required communication method</li> </ul>

Skill	Description
Get the work done	<ul style="list-style-type: none"><li>Solve routine problems according to workplace guidelines and using experience of past solutions</li></ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPEGG2002 Operate egg grading and packing floor equipment	FDFPO2010A Operate egg grading and packing floor equipment	Updated to meet Standards for Training Packages  Minor changes to Performance Criteria for clarity.	Equivalent unit

## Links

Companion Volumes, including Implementation Guides, are available at VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# Assessment Requirements for FBPEGG2002 Operate egg grading and packing floor equipment

## Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package version 1.0.

## Performance Evidence

An individual demonstrating competency must satisfy all of the elements and performance criteria in this unit.

There must be evidence that the individual has operated grading and packing floor equipment at least once, including:

- confirming availability of materials required for specialist egg washing, grading and packaging
- selecting, fitting and using appropriate personal protective equipment
- conducting pre-start checks on machinery used for egg receipt, washing, packing and grading
- starting, operating, monitoring and adjusting equipment to achieve required orders and quality outcomes
- monitoring sorting of eggs into different size lots
- taking corrective action in response to jams, other typical faults and inconsistencies in washing, weighing, faulty egg identification and packing
- undertaking quality checks of egg grading, washing and packing process
- correctly changing denester side operation between different size packs
- correctly identifying and matching trays to outer packaging for orders
- correctly weighing, recording and disposing of inedible egg waste product
- completing workplace records in required format
- applying safe work practices and identifying work health and safety hazards and controls
- applying food safety procedures.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- grading floor layout, including conveyors, washing, drying, weighing and checking equipment, lanes, denester side, backpack side, lane boards and other instruction boards, store rooms and cool rooms



- basic operating principles of equipment, including main equipment components, status and purpose of guards, equipment operating capacities and applications, and the purpose and location of sensors and related feedback instrumentation
- operating requirements and parameters and corrective action required where operation is outside specified operating parameters
- typical equipment faults and related causes, including signs and symptoms of faulty equipment and early warning signs of potential problems
- inspection or test points (control points) and the related procedures and recording requirements
- requirements for different types of eggs including cage, barn laid, free range and organic
- common causes of variation in mechanical settings and corrective action required
- workplace health and safety and food safety hazards and controls
- method used for communicating daily orders including lane boards
- purpose of best before dates for egg packaging
- method of setting best before date printer for egg packaging
- type and implication of cracks in eggs
- location and contents of all material safety data sheets (MSDS) for chemicals used in washing and cleaning processes
- types of trays, outer packaging, buckets and other containers used on grading floor and system used to identify containers used for first grade, seconds and defective eggs
- determining first grade, seconds and defective eggs
- maximum collection times for seconds and defective eggs from grading floor collection points
- quality checks, including checks on outer quality, date printing, eggs weights, cleanliness, Haugh unit reading and misshapen and cracked eggs in cartons.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - an egg grading and packing workplace setting or an environment that accurately represents workplace conditions
- resources, equipment and materials:
  - personal protective clothing and equipment
  - egg washing, grading and packing equipment
  - eggs to be processed
- specifications:
  - work procedures, including advice on safe work practices, food safety, quality and environmental requirements
  - information on equipment capacity and operating parameters
  - production schedule/batch instructions
  - documentation and recording requirements and procedures
  - cleaning procedures, materials and equipment as required, including MSDS

- relationships:
  - interactions with team members and supervisors.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volumes, including Implementation Guides, are available at VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# FBPFAV2001 Apply hydro-cooling processes to fresh produce

## Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package version 1.0.

## Application

This unit of competency describes the skills and knowledge required to use hydro-cooling equipment and processes to cool fresh fruit or vegetables in preparation for storage or transportation.

This unit applies to individuals who apply hydro-cooling processes in a food processing environment or at a farm or production site where produce is processed directly after harvest to maximise longevity.

All work must be carried out to comply with workplace procedures, in accordance with State/Territory work health and safety, and food safety regulations, legislation and standards that apply to the workplace.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

## Pre-requisite Unit

Nil

## Unit Sector

Fruit and Vegetables (FAV)

## Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Identify hydro-cooling requirements	1.1 Identify key steps in the hydro-cooling process including impact of timing and temperature 1.2 Identify produce for hydro-cooling and confirm specific cooling

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	and transfer requirements 1.3 Check and adjust equipment performance to meet work requirements 1.4 Conduct pre-start checks and prepare personal protective equipment 1.5 Place goods in storage areas to meet storage temperature, stores handling and stock rotation requirements 1.6 Record stores information in required format
2. Conduct hydro-cooling	2.1 Check storage facility for readiness and allocation of space for produce 2.2 Transfer produce in a manner that is safe and maintains produce quality 2.3 Set operating parameters for hydro-cooling equipment to meet safety and cooling requirements 2.4 Apply hydro-cooling to produce according to cooling requirements 2.5 Transfer produce to storage according to workplace procedures 2.6 Record process information in required format 2.7 Maintain the work area according to workplace standards, food safety and work health and safety requirements
3. Monitor hydro-cooling process	3.1 Check temperature to ensure required levels are maintained 3.2 Identify and act on non-compliance issues or problems

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"> <li>Read and interpret standard hydro-cooling information, including impacts of timing and temperature on fresh produce</li> </ul>
Writing	<ul style="list-style-type: none"> <li>Complete records according to workplace guidelines on paper-based and electronic media</li> </ul>

Skill	Description
Numeracy	<ul style="list-style-type: none"> <li>Interpret temperature gauges to monitor hydro-cooling requirements</li> </ul>
Navigate the world of work	<ul style="list-style-type: none"> <li>Apply workplace procedures to own role and responsibilities</li> <li>Understand main tasks, responsibilities and boundaries of own role, including use of personal protective clothing and equipment, housekeeping standards and environmental care requirements</li> <li>Maintain a clean and hazard-free work area</li> <li>Maintain hygiene standards</li> </ul>
Interact with others	<ul style="list-style-type: none"> <li>Report operational and safety information to relevant personnel using required communication method</li> </ul>
Get the work done	<ul style="list-style-type: none"> <li>Maintain quality specifications for fresh produce when applying hydro-cooling processes</li> <li>Solve routine problems according to workplace guidelines and using experience of past solutions</li> </ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPFAV2001A Apply hydro-cooling processes to fresh produce	FDFV2001A Apply hydro-cooling processes to fresh produce	Updated to meet Standards for Training Packages	Equivalent unit

## Links

Companion Volumes, including Implementation Guides, are available at VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# Assessment Requirements for FBPFV2001 Apply hydro-cooling processes to fresh produce

## Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package version 1.0.

## Performance Evidence

An individual demonstrating competency must satisfy all of the elements and performance criteria in this unit.

There must be evidence that, on at least one occasion, the individual has:

- identified handling, hydro-cooling and storage requirements of produce
- set operating parameters to meet work requirements when applying a hydro-cooling process to fresh produce
- monitored temperature to ensure standards are maintained
- handled and transferred produce to maintain required conditions
- completed workplace documentation in required format
- applied food safety procedures
- identified non-conformances
- applied safe work practices and identified work health and safety hazards and controls.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- work health and safety hazards and controls, including the purpose and limitations of protective clothing and equipment
- hydro-cooling facilities and capacities available in the work area
- temperature control requirements of produce handled in the work area, including acceptable temperature ranges, consequences of failing to meet these ranges, and requirements for gradual temperature change
- handling procedures for receiving and locating produce including procedures for identifying, segregating and disposing of damaged or potentially unsafe stock
- stock handling procedures for transferring cooled stock from a temperature-controlled environment, including the maximum duration stock can be held outside a controlled environment

- food safety and quality consequences of stock temperature control requirements not being met
- monitoring procedures and instrumentation, including the use of thermometers or other temperature-measuring instrumentation
- notification, recording and reporting requirements and procedures for apply hydro-cooling processes
- operating procedures for goods handling equipment
- housekeeping requirements for work area.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - a workplace or an environment that accurately represents workplace conditions
- resources, equipment and materials:
  - personal protective clothing and equipment
  - hydro-cooling specifications and facilities
  - produce requiring cooling
  - load-shifting equipment
- specifications:
  - work procedures, including advice on safe work practices, food safety, quality and environmental requirements
  - stock information recording system and procedures
  - cleaning procedures, materials and equipment
- relationships:
  - interactions with team members and supervisors.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volumes, including Implementation Guides, are available at VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## FBPFAV3001 Conduct chemical wash for fresh produce

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package version 1.0.

### Application

This unit of competency describes the skills and knowledge required to implement a wash process for fresh produce where chemicals, including chlorine, are used to achieve quality standards.

This unit applies to individuals who set and monitor levels of cleaning chemicals while conducting wash operations in a food processing production environment. It typically applies to produce that includes leafy greens and fruit, where chemicals are used to ensure required cleaning outcomes.

All work must be carried out to comply with workplace procedures, in accordance with State/Territory work health and safety, and food safety regulations, legislation and standards that apply to the workplace.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

### Pre-requisite Unit

Nil

### Unit Sector

Fruit and Vegetables (FAV)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Confirm required use	1.1 Identify chemicals used for the washing of fresh produce and



Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
of chemicals	<p>confirm required levels</p> <p>1.2 Identify hazards and risks associated with using chemicals and implement control measures throughout operations</p> <p>1.3 Prepare and use personal protective equipment according to workplace safety procedures</p> <p>1.4 Identify and apply storage and handling requirements for chemicals</p>
2. Prepare for washing operation	<p>2.1 Confirm and prepare raw materials for washing according to production specifications</p> <p>2.2 Confirm equipment for operational readiness, and fit and adjust components and related attachments</p> <p>2.3 Carry out pre-start checks according to operator instructions</p> <p>2.4 Measure chemicals and add dose according to specifications</p> <p>2.5 Check performance of chemical-dosing equipment to confirm accuracy</p> <p>2.6 Check water quality and confirm for use</p>
3. Operate and monitor the washing process	<p>3.1 Start and operate the washing process according to operating instructions and work health and safety requirements</p> <p>3.2 Inspect and wash raw materials to meet workplace specifications</p> <p>3.3 Check water to confirm correct levels of chemicals</p> <p>3.4 Transfer washed materials for further processing or packaging</p> <p>3.5 Identify variation in equipment operation and report maintenance requirements</p> <p>3.6 Identify, rectify or report out-of-specification product or process outcomes</p> <p>3.7 Maintain the work area according to workplace procedures, food safety and work health and safety requirements</p> <p>3.8 Maintain workplace records in required format</p>
4. Shut down the washing process	<p>4.1 Implement the appropriate shutdown procedure</p> <p>4.2 Handle, store and dispose of chemicals according to workplace procedures and environmental regulations</p> <p>4.3 Identify and report maintenance requirements according to workplace procedures</p>

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"> <li>Read and interpret standard operating procedures and directions for the safe operation of equipment when operating the chemical wash process</li> </ul>
Writing	<ul style="list-style-type: none"> <li>Record maintenance requirements on paper-based and electronic media</li> <li>Record equipment failure on paper-based and electronic media</li> </ul>
Oral Communication	<ul style="list-style-type: none"> <li>Actively listen to clarify types of produce required for wash process</li> </ul>
Numeracy	<ul style="list-style-type: none"> <li>Monitor correct ratios of chemicals to amount of water in the wash process</li> </ul>
Navigate the world of work	<ul style="list-style-type: none"> <li>Apply workplace procedures to own role and responsibilities, and seek clarification or other assistance when required</li> <li>Maintain hygiene standards and hazard-free work area</li> <li>Identify and describe own skills, knowledge and experience within context of job role</li> </ul>
Interact with others	<ul style="list-style-type: none"> <li>Use appropriate vocabulary, including technical language directly relevant to role</li> <li>Report chemical wash processing performance to relevant personnel using required communication method</li> </ul>
Get the work done	<ul style="list-style-type: none"> <li>Monitor and maintain quality specifications when operating the chemical wash process</li> <li>Identify routine problems and implement standard solutions according to workplace guidelines</li> </ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPFAV3001 Conduct chemical wash for fresh produce	FDFFFV3001A Conduct chemical wash for fresh produce	Updated to meet Standards for Training Packages	Equivalent unit

## Links

Companion Volumes, including Implementation Guides, are available at VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# Assessment Requirements for FBPFV3001 Conduct chemical wash for fresh produce

## Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package version 1.0.

## Performance Evidence

An individual demonstrating competency must satisfy all of the elements and performance criteria in this unit.

There must be evidence that the individual has, on at least one occasion:

- conducted pre-start checks on machinery used for washing fresh produce
- handled and applied chemicals according to specifications
- started, operated, monitored and adjusted process equipment to achieve required quality outcomes when washing fresh produce
- conducted water and chemical level checks
- taken corrective action in response to typical faults and inconsistencies
- completed workplace records in required format
- safely shut down equipment
- applied work health and food safety procedures.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- purpose and basic principles of the washing process, including the importance of water quality and the role of chemicals in the washing process
- basic operating principles of equipment, including:
  - main equipment components
  - status and purpose of guards
  - equipment operating capacities and applications
  - the purpose and location of sensors and related feedback instrumentation
- services required for the chemical wash process and action to take if services are not available
- the flow of this process and the effect of outputs on downstream processes

- quality characteristics to be achieved by the washing, including the consequences of out-of-specification moisture levels on further processing and final product
- quality requirements of raw materials and effect of variation on process performance, including how variation in microbial load can affect the washing process
- implications of incorrect chemical levels on fresh produce
- operating requirements, parameters and corrective action required, where operation is outside specified operating parameters
- typical equipment faults and related causes, including:
  - signs and symptoms of faulty equipment
  - early warning signs of potential problems
- methods used to monitor the washing process, including inspecting, measuring and testing as required by the process
- inspection or test points (control points) in the process and the related procedures, and recording requirements
- contamination and food safety risks associated with the process and related control measures
- common causes of variation and corrective action required
- workplace health and safety hazards and controls
- requirements of different shutdowns as appropriate to the process and workplace production requirements, including:
  - emergency and routine shutdowns
  - procedures to follow in the event of a power outage
  - isolation, lock out and tag out procedures and responsibilities
  - product or process changeover procedures and responsibilities
  - procedures and responsibility for reporting production and performance information
- environmental issues and controls relevant to the process, including waste/rework collection and handling procedures
- basic operating principles of process control, including the relationship between control panels and systems and the physical equipment
- sampling and testing associated with process monitoring and control
- routine maintenance procedures for washing equipment
- cleaning and sanitation procedures for washing equipment.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - a workplace or an environment that accurately represents workplace conditions
- resources, equipment and materials:
  - personal protective clothing and equipment
  - washing equipment and services, including water and chemicals
  - raw materials to be processed
- specifications:

- work procedures, including advice on safe work practices, food safety, quality and environmental requirements
- information on equipment capacity and operating parameters
- production schedule and batch instructions
- specifications and inspection or control points
- sampling schedules and test procedures and equipment
- documentation and recording requirements and procedures
- cleaning procedures, materials and equipment
- relationships:
  - interactions with team members and supervisors.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volumes, including Implementation Guides, are available at VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## FBPFAV3002 Program fresh produce grading equipment

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package version 1.0.

### Application

This unit of competency describes the skills and knowledge required to program grading equipment to identify key characteristics of fresh produce, and sort accordingly.

This unit applies to individuals who operate mechanical and computer-based technology to sort fresh fruit and vegetables according to key characteristics, including size, weight, density, quality or colour.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

### Pre-requisite Unit

Nil

### Unit Sector

Fruit and Vegetables (FAV)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Confirm produce grading specifications	1.1 Identify features of the grading equipment and process 1.2 Examine characteristics of produce and confirm purpose for grading 1.3 Confirm customer and packaging requirements 1.4 Determine specifications for grading based on customer requirements

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
2. Program grading equipment	2.1 Enter grading specifications into equipment 2.2 Use computer program or equipment components to enable a variety of grading outcomes to be achieved 2.3 Test or monitor program or equipment operation against specifications 2.4 Investigate problems or inconsistencies in grading outcomes to determine cause 2.5 Implement corrective action where applicable or report to appropriate personnel 2.5 Complete documentation and records of grading specifications for customer

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"> <li>Read and interpret standard operating procedures and instructions for the safe operation of grading equipment</li> </ul>
Writing	<ul style="list-style-type: none"> <li>Record maintenance requirements on paper-based and electronic media</li> <li>Record equipment failure on paper-based and electronic media</li> </ul>
Oral communication	<ul style="list-style-type: none"> <li>Actively listen to clarify types of fresh produce to be graded and sorted</li> </ul>
Numeracy	<ul style="list-style-type: none"> <li>Estimate sizes and shapes of fresh produce to be graded and sorted</li> </ul>
Navigate the world of work	<ul style="list-style-type: none"> <li>Apply workplace procedures to own role and responsibilities, and seek clarification or other assistance when required</li> <li>Maintain hygiene standards and hazard-free work area</li> <li>Identify and describe own skills, knowledge and experience within context of job role</li> </ul>
Interact with others	<ul style="list-style-type: none"> <li>Use appropriate vocabulary, including technical language directly relevant to role</li> <li>Report performance of grading equipment to relevant personnel</li> </ul>



Skill	Description
	using required communication method
Get the work done	<ul style="list-style-type: none"><li>• Monitor and maintain quality specifications when grading fresh produce</li><li>• Identify routine problems and implement standard solutions according to workplace guidelines</li></ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPFAV3002 Program fresh produce grading equipment	FDFFV3002A Program fresh produce grading equipment	Updated to meet Standards for Training Packages	Equivalent unit

## Links

Companion Volumes, including Implementation Guides, are available at VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# Assessment Requirements for FBPFV3002 Program fresh produce grading equipment

## Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package version 1.0.

## Performance Evidence

An individual demonstrating competency must satisfy all of the elements and performance criteria in this unit.

There must be evidence that the individual has, on at least one occasion:

- analysed grading requirements and confirmed specifications for grading equipment
- determined grading specifications for a variety of outcomes
- used computing or mechanical technology to achieve grading specifications of fresh produce
- verified program specifications for required outcomes
- analysed non-conformances and grading problems, and determined probable cause
- completed workplace records in required format.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- grading equipment features, processes and technologies
- factors that influence grading outcomes
- typical problems that occur in the grading process, and likely causes and appropriate response options
- characteristics of produce used for grading and the process of identification.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - a workplace or an environment that accurately represents workplace conditions
- resources, equipment and materials:
  - personal protective clothing and equipment

- produce, grading equipment and consumables
- specifications:
  - work procedures, including advice on safe work practices, standard operating procedures (SOP), food safety, quality and environmental requirements
  - grading specifications
  - workplace information recording systems, requirements and procedures
  - cleaning procedures, materials and equipment
- relationships:
  - interactions with team members and supervisors.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volumes, including Implementation Guides, are available at VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## FBPFST4001 Apply food processing technologies

### Modification History

Release	Comments
Release 1	This version released with the FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

### Application

This unit of competency describes the skills and knowledge required to implement fermentation, concentration and drying, cooking or steaming processes, and to review and monitor their effectiveness and efficiency based on an understanding of food science and technology.

The unit applies to individuals who have responsibility for maintaining product safety, quality and the production environment.

Legislative and regulatory requirements apply to food safety and are enforced through state/territory jurisdictions. Users must check with the relevant regulatory authority before delivery.

### Pre-requisite Unit

Nil

### Unit Sector

Food science and technology (FST)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Carry out fermentation as part of food or beverage production	1.1 Prepare materials and equipment for a fermentation process 1.2 Apply and monitor a fermentation process 1.3 Test and evaluate the fermented product
2. Review a fermentation	2.1 Review the critical control points (CCPs) and critical limits for

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
process for a commercial food product	product safety 2.2 Review operating procedures for food safety and quality in fermentation 2.3 Review the food safety and production plans for the fermentation process 2.4 Review environmental impacts and associated costs for fermentation in commercial food production 2.5 Take corrective action in response to out-of-specification results
3. Carry out concentration and drying as part of food or beverage production	3.1 Prepare materials and equipment for a concentration and drying process 3.2 Apply and monitor a concentration and drying process 3.3 Test and evaluate the concentrated and dried food product
4. Review a concentration and drying process for a commercial food product	4.1 Review the CCPs and critical limits for product safety 4.2 Review operating procedures for food safety and quality in concentration and drying 4.3 Review the food safety and production plan for the concentration and drying process 4.4 Review environmental impacts and associated costs for concentration and drying in commercial food production 4.5 Take corrective action in response to out-of-specification results
5. Carry out cooking or steaming as part of food or beverage production	5.1 Prepare materials and equipment for a cooking or steaming process 5.2 Apply and monitor a cooking or steaming process 5.3 Test and evaluate the cooked or steamed food product
6. Review a cooking or steaming operation for a commercial food product	6.1 Review the CCPs and critical limits for product safety 6.2 Review operating procedures for food safety and quality in cooking or steaming 6.3 Review the food safety and production plan for the cooking or steaming process 6.4 Review environmental impacts and associated costs for cooking or steaming in commercial food production 6.5 Take corrective action in response to out-of-specification results

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"><li>Interpret manuals, diagrams, drawings and other technical information relevant to food processing technologies</li><li>Interpret procedures for test equipment</li><li>Interpret food safety guidelines and regulations</li><li>Interpret environmental management procedures and plans for different types of food processing technologies</li></ul>
Writing	<ul style="list-style-type: none"><li>Document biochemical and biological changes to food products and testing criteria</li><li>Document effectiveness and efficiency of food processing technologies</li></ul>
Numeracy	<ul style="list-style-type: none"><li>Monitor and adjust critical limits for processing a food product, including time and temperature, weights, flow rates and flow diversion</li><li>Determine calibration procedures and schedule for test equipment</li></ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPFST4001 Apply food processing technologies	FDFST4001A Apply food processing technologies	Updated to meet Standards for Training Packages  Minor changes to Performance Criteria to clarify intent	Equivalent unit

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# Assessment Requirements for FBPFST4001 Apply food processing technologies

## Modification History

Release	Comments
Release 1	This version released with the FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

## Performance Evidence

An individual demonstrating competency in this unit must satisfy all of the elements and performance criteria of this unit.

There must be evidence that the individual has produced two different items of food using at least two of the following technologies:

- fermenting
- concentrating or drying
- cooking or steaming.

For each process, the individual must show evidence of:

- monitoring parameters of food processing
- applying appropriate quality control processes and procedures to assess food products
- taking corrective action in response to out-of-specification results.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- fermentation:
  - biochemical principles of fermentation, including lactic acid fermentation and alcohol fermentation
  - the major microorganism groups used in fermentation, including Lactococcus, Streptococcus, Leuconostoc, Pediococcus, Lactobacillus bacterial species, yeasts and moulds
  - the role of microorganisms in the fermentation process
  - the microbial growth phases: lag phase, log phase, stationary phase and death phase



- materials used in the fermentation process, including raw materials/pre-processed materials and starter cultures (single strain starters, multiple strain cultures, mixed strains)
- quality control processes and procedures used to assess fermented food products
- the principles of concentration in production, including:
  - the aim of concentration in food processing
  - the need for concentration in food processing
  - heat transfer mechanism
- the principles of drying in food production, including:
  - the aim of drying in food processing
  - the need for drying in food processing
  - heat transfer mechanism
- the principles of heat transfer in the concentration of food
- the principles of heat transfer in the drying of food
- the various methods of concentration of foods, including evaporation, filtration, reverse osmosis and freeze concentration
- the various methods of dehydrating foods, including cabinet, spray, drying and freeze dehydration
- quality control process and procedures used to assess concentrated and dried food products
- cooking or steaming:
  - the purpose and basic principles of heat sterilisation and effect on physical, chemical, microbiological and organoleptic characteristics of the cooked product
  - basic operating principles of equipment, including safe operating procedures
  - quality characteristics and conditioning required of ingredients used and their role in the product (conditioning may include reconstituting dry ingredients and bringing ingredients to a required temperature)
  - effect of ingredient quality/condition on the process
  - effect of variables including temperature, viscosity/texture, microbial load and acidity
  - heat treatment requirements for low and/or high acid foods as appropriate to production requirements
  - stages and changes that occur during the blending and heat treatment stages
  - quality requirements of the cooked product
  - relationship between time and temperature in the cooking process
- health and safety in the hazards in the workplace and controls relating to work processes
- Food Standards Code
- state/territory, Commonwealth and industry requirements relevant to food processing.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:

- skills must be demonstrated in a workplace setting or an environment that accurately represents a real food processing workplace
- resources, equipment and materials:
  - personal protective equipment required for applying food processing technologies
  - production process and related equipment, manufacturers' advice and operating procedures
  - testing equipment used to report relevant product and process information
- specifications:
  - equipment manuals, including operating parameters.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## FBPFST4002 Carry out sampling and testing of milk at receipt

### Modification History

Release	Comments
Release 2	This version released with the FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

### Application

This unit of competency describes the skills and knowledge required to carry out sampling and testing procedures for milk received from farm as the first operation in market milk processing or the manufacturing of milk-based products.

This unit applies to individuals who are responsible for receiving and testing milk from the dairy farm, who often work independently, using discretion and making judgements where required.

No occupational licensing or certification requirements apply to this unit at the time of publication. However, legislative and regulatory requirements for food processing exist, so local requirements must be checked. All work must comply with Australian food safety standards and relevant codes of practice.

### Pre-requisite Unit

Nil

### Unit Sector

Food science and technology (FST)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Implement and monitor personal hygiene standards	1.1 Ensure that personal hygiene meets the requirements of the food safety program for milk receipt and handling 1.2 Identify and report risks to food safety 1.3 Wear clothing and footwear appropriate for testing and handling

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	milk to meet the requirements of the food safety program 1.4 Comply with the food safety program when moving around the milk processing plant
2. Carry out standard tests to determine the blending and further processing requirements of milk	2.1 Implement procedures for receiving and handling milk 2.2 Comply with requirements and procedures for milk testing 2.3 Sample milk using sampling procedures 2.4 Prepare and operate milk testing equipment 2.5 Record and store data in required format 2.6 Interpret results to determine that milk is within compositional and quality requirements
3. Respond to issues of contamination or other forms of non-conformance in the receival of fresh milk	3.1 Identify procedures for taking corrective action 3.2 Implement corrective and preventative measures where required 3.3 Devise or revise procedures to support control measures 3.4 Identify processes or conditions that could result in a breach of procedures and corrective actions 3.5 Control process changes so that quality assurance requirements are accomplished
4. Review sampling, handling and testing procedures for fresh milk	4.1 Identify product sampling procedures 4.2 Identify post-collection procedures 4.3 Review test results and respond to issues

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"> <li>Interpret food safety guidelines and regulations</li> <li>Interpret product quality and workplace procedures</li> </ul>
Navigate the world of	<ul style="list-style-type: none"> <li>Monitor adherence to legal and regulatory standards and responsibilities for self and others</li> </ul>

Skill	Description
work	<ul style="list-style-type: none"><li>Take responsibility and ownership for own work</li></ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPFST4002 Carry out sampling and testing of milk at receival	FDFST4021A Carry out sampling and testing of milk at receival	Updated to meet Standards for Training Packages  Minor changes to Performance Criteria to clarify intent	Equivalent unit

## Links

Companion Volume Implementation Guides are found in VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# Assessment Requirements for FBPFST4002 Carry out sampling and testing of milk at receival

## Modification History

Release	Comments
Release 2	This version released with the FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

## Performance Evidence

An individual demonstrating competency in this unit must satisfy all of the elements and performance criteria of this unit.

There must be evidence that the individual has safely and effectively carried out accurate sampling and testing of milk at receival on at least two occasions.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- the different types of market milk and related products
- proximate analysis profiles for milk from different commercial species of animals
- the properties of milk fats and spoilage reactions in milk fats
- the characteristics and importance of further processing of the two types of milk proteins
- the impact of nutrition and genetics on protein to fat (P:F) ratios
- the mineral composition of milk and relationship between mineral and protein, fat and lactose levels
- the types of microorganisms present in fresh milk and their impact on milk storage and processing characteristics
- characteristics and food safety implications of antibiotic residues and mastitic milk
- nutrients and micronutrients levels in fresh milk as a source of human nutrition
- pathogenic organisms in fresh milk, and processing and environmental controls
- the importance of trace antibiotics in milk in affecting market milk and milk for further processing
- the characteristics of mastitic milk and its impact on market milk and milk for further processing
- hygiene procedures for handling fresh milk
- sampling procedures

- raw milk quality tests
- interpretation of raw milk test results
- health and safety in the workplace hazards and controls relating to work processes.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - skills must be demonstrated in a workplace setting or an environment that accurately represents a milk receival facility
- resources, equipment and materials:
  - production process and related equipment, manufacturers' advice and operating procedures
  - milk testing equipment
  - milk samples from different sources
  - methods and related software systems for collecting data
- specifications:
  - tests used to report relevant product/process information and recorded results.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## FBPFST4003 Apply digital technology in food processing

### Modification History

Release	Comments
Release 1	This version released with the FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

### Application

This unit of competency describes the skills and knowledge required to use data logging devices and computer applications in the workplace. It includes identifying data measurement and recording devices for managing food processing equipment and output.

The unit applies to individuals who work for food and beverage processing companies and are required to use digital technology to support food processing related tasks.

Legislative and regulatory requirements apply to food safety and are enforced through state/territory jurisdictions. Users must check with the relevant regulatory authority before delivery.

### Pre-requisite Unit

Nil

### Unit Sector

Food science and technology (FST)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Identify equipment requirements for data collection, recording and analysis in food processing	1.1 Identify data logging and other computerised equipment used in the work area 1.2 Identify functions of equipment, component parts and accessories 1.3 Interpret information technology (IT) systems, applications and related software for workplace activities



Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	1.4 Apply protocols for operating systems, software applications and operator errors 1.5 Access information on rectifying faults and operating equipment, systems and applications
2. Use IT equipment to collect data for food processing	2.1 Comply with data collection requirements to meet regulatory, enterprise and client requirements 2.2 Identify data collection control points 2.3 Set up equipment for work requirements 2.4 Use operating manuals and help screens for IT equipment and software 2.5 Select and access software packages and accessories for required applications 2.6 Collect and record data in database 2.7 Save files according to workplace instructions 2.8 Follow shutdown procedures for files, applications and equipment
3. Use computer applications to analyse data for process control and systems or product improvement	3.1 Enter or transfer data using appropriate equipment 3.2 Confirm accuracy of input 3.3 Create and save files in the appropriate manner 3.4 Identify data analysis procedures to suit work requirements 3.5 Check data analysis procedures through known test algorithms or programs 3.6 Analyse data and prepare reports in required format, including schematics and tables where appropriate
4. Implement workplace procedures for management and security of data	4.1 Transfer files to back-up and other locations as required 4.2 Follow workplace security procedures 4.3 Manage information systems appropriately 4.4 Use appropriate precautions against the loss or corruption of data

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"><li>Interpret workplace procedures for using digital technology in food processing equipment</li></ul>
Numeracy	<ul style="list-style-type: none"><li>Source, collect and organise a range of data relevant to digital technologies used in food processing</li></ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPFST4003 Apply digital technology in food processing	FDFST4003A Apply digital technology in food processing	Errors in content corrected  Updated to meet Standards for Training Packages	No equivalent unit

## Links

Companion Volume Implementation Guides are found in VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## Assessment Requirements for FBPFST4003 Apply digital technology in food processing

### Modification History

Release	Comments
Release 1	This version released with the FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

### Performance Evidence

An individual demonstrating competency in this unit must satisfy all of the elements and performance criteria of this unit.

There must be evidence that the individual has effectively used digital technology on two separate occasions, including on each occasion:

- collecting and recording accurate data about food processing
- analysing data and producing a report to suit requirement of workplace
- storing data and reports appropriately.

### Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- compatibility of an operating system in respect to data logging equipment and databases
- food processing operation data requirements and uses
- data analysis processes
- interoperability between operating systems and between operating systems and food processing equipment
- software applicable to the operating system
- basic problem-solving in application management and help function usage
- diagnostic software and hardware
- configuration procedures
- back-up procedures
- organisational security procedures
- hardware maintenance procedures
- health and safety in the workplace hazards and controls relating to work processes.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - skills must be demonstrated in a workplace setting or an environment that accurately represents a real workplace
- resources, equipment and materials:
  - data logging and other computerised equipment used in the food processing area
- specifications:
  - standard operating procedures for digital equipment
  - relevant equipment manuals, including operating parameters.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# FBPFST4004 Perform microbiological procedures in the food industry

## Modification History

Release	Comments
Release 1	This version released with the FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

## Application

This unit of competency describes the skills and knowledge required to perform on-site microbiological procedures in the food industry. It applies to laboratory and senior technical staff, and production managers, who are required to monitor the microbiology of food and food processing operations.

The unit applies to individuals who perform on-site tests required in a food processing enterprise, interpret the results of testing as part of monitoring production processes, and identify the need for certified laboratory testing.

No occupational licensing or certification requirements apply to this unit at the time of publication. However, legislative and regulatory requirements for food processing exist, so local requirements must be checked. All work must comply with Australian food safety standards and relevant codes of practice.

## Pre-requisite Unit

Nil

## Unit Sector

Food science and technology (FST)

## Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare for safe microbiological work	1.1 Select work area, equipment and instructions for the safe handling of materials that may contain microorganisms

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
using aseptic techniques	1.2 Wear personal protective apparel 1.3 Select relevant emergency equipment for timely response to microbiological accidents 1.4 Apply correct disinfection procedures to work areas before and after use 1.5 Apply standard precautions when handling biological materials
2. Process microbiological samples and undertake microscopy	2.1 Prepare thin smears of samples and stain 2.2 Prepare liquid films of specimens for direct observation 2.3 Concentrate relevant samples to facilitate microscopy 2.4 Set up stereo and compound microscopes and identify causes of variations in image quality 2.5 Examine dry, wet and stained microbiological specimens 2.6 Clean and store microscopes
3. Apply aseptic techniques correctly to cultivate and isolate microorganisms	3.1 Prepare media for culturing cells 3.2 Perform aseptic transfers of microorganisms to prepared liquid and solid media 3.3 Streak bacteria onto media plates to isolate single colonies using aseptic technique 3.4 Select temperature conditions and gaseous environments suitable for the growth of a range of common microorganisms
4. Estimate the number of microorganisms in food and water samples	4.1 Prepare samples for testing 4.2 Carry out serial dilutions aseptically 4.3 Estimate and record bacterial growth in the sample 4.4 Calculate the bacterial load of the sample and report the results
5. Perform and interpret tests to assist in the identification of common bacterial genera	5.1 Perform tests on pure cultures to assist in the identification of major bacterial groups 5.2 Prepare pure cultures selected from common bacterial genera 5.3 Select and prepare stained specimens to demonstrate features and cellular characteristics of major bacterial groups
6. Apply quality assurance procedures commonly used in a food	6.1 Apply controls used to monitor accuracy and precision of results in a microbiological laboratory

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
testing laboratory	6.2 Perform all tests in accordance with enterprise quality procedures 6.3 Record and report all test data appropriately
7. Interpret the results of laboratory testing and relate to the production plan	7.1 Access laboratory test results 7.2 Analyse laboratory tests to identify allowable variances and critical limits in production 7.3 Make adjustments to recipes or operating procedures to ensure critical limits are complied with 7.4 Establish the need for further certified testing

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"> <li>Interpret codes of practice, regulations, and standards for food safety and critical limits of common bacterial genera</li> <li>Interpret procedures and methods for food testing and use of testing equipment</li> </ul>
Numeracy	<ul style="list-style-type: none"> <li>Record and access laboratory test results, including critical limits and allowable variances for common types of bacteria found in foods</li> <li>Ensure calibration procedures are adhered to</li> </ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPFST4004 Perform microbiological procedures in the	FDFST4004A Perform microbiological procedures in the	Updated to meet Standards for Training Packages	Equivalent unit

Code and title current version	Code and title previous version	Comments	Equivalence status
food industry	food industry		

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>



# Assessment Requirements for FBPFST4004 Perform microbiological procedures in the food industry

## Modification History

Release	Comments
Release 1	This version released with the FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

## Performance Evidence

An individual demonstrating competency in this unit must satisfy all of the elements and performance criteria of this unit.

There must be evidence that the individual has safely and effectively performed microbiological procedures in the food industry, including:

- safely and effectively performing a minimum of three different multi-step tests to isolate bacteria
- safely isolating, identifying and cultivating microorganisms
- effectively setting up and using microscope slides and a microscope
- recognising the use of the Gram reaction in the identification of common types of bacteria
- identifying the need for certified laboratory testing
- accurately interpreting the results of tests carried out by a certified laboratory.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- physiological characteristics of animal, plant and microbial cells
- microbiological terminology relevant to role
- use of protective clothing and biological safety cabinets
- aseptic sampling techniques
- disinfection and sterilisation as applied to practical aspects of microbiology
- microbial diversity and growth
- aseptic techniques used to cultivate and isolate microorganisms
- microorganisms of significance in the production and spoilage of foods
- chemical and physical methods available for controlling microbial growth
- methods for sterilisation or control of a given microorganism
- the Gram reaction in the identification of common types of bacteria

- purpose of the food tests conducted
- commonly used rapid test kits and their purpose
- rationale for sample dilution when preparing materials for enumerating organisms and other pure culture work
- forms of bacterial colonies on common media used in bacteriological investigations in the food industry
- impact of temperature conditions and gaseous environments on the growth of a range of common microorganisms
- health and safety in the workplace environmental, and quality assurance procedures commonly used in food testing laboratories.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - skills must be demonstrated in a workplace setting or an environment that accurately represents a food testing laboratory
- resources, equipment and materials:
  - personal protective equipment required to perform on-site microbiological procedures in the food industry
  - common laboratory equipment and a sufficient range of samples to allow microbiological procedures to be demonstrated
- specifications:
  - procedures and templates used to report relevant product and/or process information and recorded results.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# FBPFST4005 Document food processes and supporting procedures

## Modification History

Release	Comments
Release 1	This version released with the FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

## Application

This unit of competency describes the skills and knowledge required to document the operational steps in producing a processed food product and developing the procedures that support the operation.

The unit applies to individuals who are required to document processes and procedures for food processing, and who have responsibility for monitoring and maintaining product safety and quality and the production environment.

No occupational licensing or certification requirements apply to this unit at the time of publication. However, legislative and regulatory requirements for food processing exist, so local requirements must be checked. All work must comply with Australian food safety standards and relevant codes of practice.

## Pre-requisite Unit

Nil

## Unit Sector

Food science and technology (FST)

## Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Identify the stages and operations required in the processing of a food	1.1 Identify inputs, production processes and outputs 1.2 Analyse each step in processing operation and identify

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
product	opportunities to make adjustments 1.3 Identify hazards to food safety and product quality at each stage of production
2. Identify the facilities, equipment, workflow and process controls for a processed food product	2.1 Analyse functions of each production stage 2.2 Identify equipment used to perform each operation stage 2.3 Identify the facilities, workflow and layout of the work area and links with other parts of the organisation 2.4 Document process controls for a processed food product 2.5 Review the work team structure and the roles and responsibilities of team personnel for a given food product 2.6 Investigate information management processes for a food processing operation
3. Produce documentation for nominated unit operations	3.1 Draft a flow diagram using correct nomenclature and symbols to show processes, inputs and outputs 3.2 Highlight suggestions for improvements to product quality and operational efficiency 3.3 Quantify energy and resource usage, and environmental impacts, of production processes 3.4 Review procedures for testing for yields and variances at each stage 3.5 Identify areas for process improvement for further analysis

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"><li>Interpret manuals, diagrams, drawings and other technical information relevant to producing a processed food product</li><li>Interpret codes of practice, regulations, and standards for food safety</li></ul>

Skill	Description
Writing	<ul style="list-style-type: none"><li>Clearly and accurately document operational steps and procedures in producing a processed food product</li></ul>
Numeracy	<ul style="list-style-type: none"><li>Source, collect and organise a range of data required during the steps for producing a processed food product</li></ul>
Get the work done	<ul style="list-style-type: none"><li>Represent food processing operations in a diagrammatic form</li></ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPFST4005 Document food processes and supporting procedures	FDFST4005A Document processes and procedures for a food product	Updated to meet Standards for Training Packages  Minor changes to Performance Criteria to clarify intent  Updated title	Equivalent unit

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## Assessment Requirements for FBPFST4005 Document food processes and supporting procedures

### Modification History

Release	Comments
Release 1	This version released with the FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

### Performance Evidence

An individual demonstrating competency in this unit must satisfy all of the elements and performance criteria of this unit.

There must be evidence that the individual has effectively documented at least one complete food processing operation, including:

- documenting supporting procedures for the operation
- identifying unit operations and representing a food processing operation in a diagrammatic form
- identifying review mechanisms for calculating variances and outputs that are outside of specification, and to identify areas for further refining and development under continuous improvement for a food product.

### Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- basic theory behind each major operation, including material transfer, separation, size reduction, combining, heat exchange, biochemical transformation, shaping and extrusion
- criteria used to select equipment for food processing operations
- basic operating principles for the equipment used
- process flow charts and process control
- information and format requirements for documenting processes and procedures
- techniques for quantifying energy and resource use
- concepts of waste and approaches used to reduce waste and improve efficiencies
- hazards and controls relating to food processing operations.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - skills must be demonstrated in a workplace setting or an environment that accurately represents a real food processing workplace
- resources, equipment and materials:
  - food processing equipment
  - methods and related software systems required to produce flow diagrams for nominated unit
- specifications:
  - production process and related equipment, manufacturers' advice and operating procedures.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volume Implementation Guides are found in VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## FBPFST4006 Apply food preservation technologies

### Modification History

Release	Comments
Release 1	This version released with the FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

### Application

This unit of competency describes the skills and knowledge required to apply food preservation technologies and to review their effectiveness and efficiency based on an understanding of food science and technology.

The unit applies to individuals who oversee the preservation of food. It covers low and high temperature preservation as well as the evaluation of alternative preservation methods, including irradiation and high pressure processing.

No occupational licensing or certification requirements apply to this unit at the time of publication. However, legislative and regulatory requirements for food processing exist, so local requirements must be checked. All work must comply with Australian food safety standards and relevant codes of practice.

### Pre-requisite Unit

Nil

### Unit Sector

Food science and technology (FST)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Apply high temperature preservation methods for food	1.1 Establish the need for heat treatment of foods 1.2 Implement preparatory procedures for heat treatment processes 1.3 Develop a process chart for the implementation of high



Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	temperature preservation 1.4 Apply and monitor heat treatment processes 1.5 Assess the physical, biochemical and microbiological changes to a food product after heat treatment
2. Apply low temperature preservation methods for food	2.1 Establish the need for chilling or freezing treatments of foods 2.2 Implement preparatory procedures for chilling or freezing treatment processes 2.3 Develop a process chart for the implementation of low temperature preservation 2.4 Apply and monitor chilling or freezing processes for food preservation 2.5 Assess the physical, biochemical and microbiological changes to a food product after chilling or freezing treatment processes
3. Evaluate alternative existing technologies for food preservation	3.1 Establish the need for irradiation and high pressure preservation techniques 3.2 Develop a process chart for the implementation of irradiation or high pressure preservation 3.3 Review the effectiveness and consumer acceptance of irradiation 3.4 Assess the physical, biochemical and microbiological changes to a food product after irradiation or high pressure treatment

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"> <li>Interpret manuals, diagrams, drawings and other technical information relevant to food preservation technologies</li> <li>Interpret food safety guidelines, codes of practice, standards and regulations</li> </ul>
Writing	<ul style="list-style-type: none"> <li>Document effectiveness and efficiency of food preservation technologies</li> </ul>

Skill	Description
Numeracy	<ul style="list-style-type: none"><li>Analyse process controls for food preservation operations</li><li>Source, collect and organise a range of data relevant to food preservation technologies</li></ul>
Navigate the world of work	<ul style="list-style-type: none"><li>Monitor adherence to legal and regulatory standards and responsibilities for self and others</li></ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPFST4006 Apply food preservation technologies	FDFST4006A Apply food preservation technologies	Updated to meet Standards for Training Packages  Minor changes to Performance Criteria to clarify intent	Equivalent unit

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## Assessment Requirements for FBPFST4006 Apply food preservation technologies

### Modification History

Release	Comments
Release 1	This version released with the FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

### Performance Evidence

An individual demonstrating competency in this unit must satisfy all of the elements and performance criteria of this unit.

There must be evidence that the individual has implemented two food preservation processes, including:

- heat treatment, and
- chilling or freezing.

For each process, the individual must:

- identify the effects of the preservation process on the food
- identify processing/operating parameters required of each process to meet safety and production requirements
- identify a food suited to the preservation process
- review the effectiveness of the treatment.

There must also be evidence that the individual has:

- evaluated the effects of irradiation or high pressure preservation on one food item.

### Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- heat treatment principles, including:
- the relationship between high temperature and deactivation and destruction of microorganisms

- the differences between blanching, steaming, canning and other methods of heat application to food
- the effects of application of heat on qualities and properties of food stuffs
- biochemical, microbiological and physical changes to food as a result of heat application
- critical quality defects that can occur as a result of heat treatment
- how operating conditions, including temperature fluctuations or water/steam contacts with food, affect the nutritional/chemical composition of food
- how product parameters, including type, size, shape and chemical and biological composition affect the effectiveness of heat treatment on food
- the calculation and interpretation of  $F_0$ , Lethality and  $F_h$  values
- low temperature processes, including:
  - the different techniques adopted in industry for freezing food products
  - appropriate freezing techniques, including freeze drying, for specific food products
  - industrial refrigerants currently used today to maintain low temperatures in chillers and freezers
  - the efficiency, cost and environmental impact of such refrigerants
  - biochemical, microbiological and physical changes to food as a result of slow or quick freezing
  - critical quality defects that can occur as a result of freezing and long term freezing of foods
  - how operating conditions, including temperature fluctuations, humidity and air velocity, affect the effective chilling and freezing and refrigeration of food
  - how product parameters, including type, size, shape and chemical and biological composition affect the effective chilling and freezing of foods
  - the appropriate freezing techniques for the major types of foods that can be frozen without loss of quality: fruits, vegetables, seafood, meats, baked goods and ready-to-eat food
  - refrigerants used in the past, including chlorofluorocarbons (CFCs) and hydrochlorofluorocarbons (HCFCs), and the ones currently used, including HCFC-123 and various blends
  - why certain refrigerants are a problem for the environment, including depletion of the ozone layer and 'Greenhouse' effect
- irradiation equipment, including:
  - types of foods suitable for irradiation
  - consumer acceptance and issues with irradiation
  - the most suitable irradiation techniques for specific food products
  - physical changes caused by irradiation of food
  - impact of irradiation on different species of microorganisms
  - enzymatic and other chemical changes caused by irradiation
  - potential quality defects that arise as a result of irradiation of food

- processing/operating parameters of irradiation equipment as required to meet safety and production requirements
- irradiation equipment safety and operation
- labelling and other regulatory requirements of irradiation of food
- high pressure equipment, including:
  - types of foods suitable for high pressure processing
  - the most suitable high pressure techniques for specific food products
  - possible physical changes caused by high pressure processing of food
  - the impact of high pressure preservation technology on different species of microorganisms
  - enzymatic and other chemical changes caused by high pressure processing
  - potential quality defects that arise as a result of high pressure processing of food
  - operating procedures of high pressure processing equipment as required to meet safety and production requirements.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - skills must be demonstrated in a workplace setting or an environment that accurately represents a real food processing workplace
- resources, equipment and materials:
  - personal protective equipment required for applying food preservation technologies
  - food preservation equipment, manufacturers' advice and operating procedures
  - methods and related software systems as required for carrying out food testing and preservation and collecting data.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# FBPFST4007 Establish operational requirements for a food processing enterprise

## Modification History

Release	Comments
Release 1	This version released with the FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

## Application

This unit of competency describes the skills and knowledge required to establish operational requirements for a food processing enterprise.

This unit applies to food technologists, quality and food safety supervisors, technical specialists, and to middle management personnel who are new to the industry. It includes gaining an understanding of the economic and political structure of the industry, production stages and methods, the key factors affecting food safety and quality, and reporting procedures. The person who undertakes this unit must be aware of the intent and detail of legislation and be able to review compliance procedures.

No occupational licensing or certification requirements apply to this unit at the time of publication. However, legislative and regulatory requirements for food processing exist, so local requirements must be checked. All work must comply with Australian food safety standards and relevant codes of practice.

## Pre-requisite Unit

Nil

## Unit Sector

Food science and technology (FST)

## Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Identify key issues and	1.1 Identify the range of job roles and responsibilities for a food

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
organisations that impact the Australian food processing industry	<p>processing operation</p> <p>1.2 Determine the environmental impacts of a food processing operation</p> <p>1.3 Determine the impacts of customer expectations for product integrity, quality, safety and nutritional value on food processing operations</p> <p>1.4 Identify the roles of key regulatory and industry bodies for a food processing sector</p>
2. Identify the sequence of operations for processing a range of products in a sector	<p>2.1 Review procedures for the assembling and preparation of ingredients</p> <p>2.2 Define the storage and handling requirements of ingredients for a food product</p> <p>2.3 Construct a flow chart for the processing operations for a food product</p> <p>2.4 Determine the specifications for a food product and comply with the methods used to ensure critical limits</p>
3. Determine factors affecting food safety and product quality during processing	<p>3.1 Identify key food safety issues in food processing</p> <p>3.2 Review food safety procedures</p> <p>3.3 Apply hygiene procedures for a food processing operation</p> <p>3.4 Determine factors affecting shelf life and spoilage in food products</p> <p>3.5 Define the nature and purpose of a product testing program</p>
4. Write and review standard operating procedures to comply with legislation relating to product and processing	<p>4.1 Identify relevant legislation and regulations that apply to food production, packaging and labelling</p> <p>4.2 Define the purpose and scope of relevant legislation</p> <p>4.3 Identify the roles and responsibilities of authorities responsible for administering legislation</p> <p>4.4 Define operational and product requirements to comply with legislation</p> <p>4.5 Document or revise standard operating procedures based on the enterprise's templates and systems, incorporating improvements</p>
5. Define organisational requirements to comply with legislation relating to food premises,	<p>5.1 Review legislation and regulations that apply to food premises, storage facilities and equipment</p> <p>5.2 Identify the purpose and intent of relevant legislation</p>

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
equipment design and storage facilities	5.3 Identify the roles and responsibilities of authorities responsible for administering legislation 5.4 Establish and review procedures to support compliance with legal requirements
6. Provide written reports and presentations on food processing issues	6.1 Identify areas of non-compliance or with potential for process improvement 6.2 Collect information and use problem-solving strategies to review procedures 6.3 Present data, discussion and recommendations in a formatted report 6.4 Deliver presentations that incorporate technical data and information

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"> <li>Interpret manuals, diagrams, drawings and other technical information relevant to a food processing enterprise</li> <li>Interpret food safety guidelines, codes of practice, standards and regulations relevant to a food processing enterprise</li> <li>Interpret environmental management procedures and plans for different types of food processing technologies</li> </ul>
Writing	<ul style="list-style-type: none"> <li>Document clear and accessible standard operating procedures</li> </ul>
Numeracy	<ul style="list-style-type: none"> <li>Source, collect and organise a range of data relevant to a food processing enterprise</li> </ul>
Get the work done	<ul style="list-style-type: none"> <li>Identify current innovative practice and organisational trends</li> <li>Use a computer, keyboard and software to collect and file research data</li> </ul>



## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPFST4007 Establish operational requirements for a food processing enterprise	FDFST4007A Establish operational requirements for a food processing enterprise	Updated to meet Standards for Training Packages	Equivalent unit

## Links

Companion Volume Implementation Guides are found in VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# Assessment Requirements for FBPFST4007 Establish operational requirements for a food processing enterprise

## Modification History

Release	Comments
Release 1	This version released with the FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

## Performance Evidence

An individual demonstrating competency in this unit must satisfy all of the elements and performance criteria of this unit.

There must be evidence that the individual has established and/or reviewed procedures to support compliance in a food processing enterprise, on at least one occasion, and produced a report that includes:

- identifying systems, roles and procedures in place for food safety and quality assurance
- identifying legal requirements for the packing, production and labelling operations of a food production enterprise
- identifying areas of non-compliance with relevant regulations
- making recommendations for improvements, including revised standard operating procedures.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- industry organisations and representative bodies in food processing and their roles
- key job roles and responsibilities in the food processing industry
- the environmental impacts of a food processing operation
- customer expectations and community perceptions of the food processing industry
- the legal responsibilities of a food processing company, including:
  - product content (Food Standards Code)
  - product packaging and labelling, including use of nutritional information panels (Food Standards Code)
  - design requirements of food premises and equipment
  - requirements of storage facilities used for materials, ingredients and final product

- other requirements as appropriate to the product and/or market (import and/or export legislation)
- the purpose and intent of relevant legislation
- emerging technologies in food processing
- food testing methods
- procedures for quality assurance (QA) and food safety
- potential hazards that could be introduced as a result of equipment design and configuration
- associated risks in handling chemicals and dangerous goods
- recording requirements to comply with legislative requirements
- workplace report templates and protocols
- oral and written communication strategies and protocols
- the rights and responsibilities of related officers to access the production site
- health and safety in the workplace hazards and controls relating to work processes.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - skills must be demonstrated in a workplace setting or an environment that accurately represents a real workplace
- resources, equipment and materials:
  - production process and related equipment, manufacturers' advice and operating procedures
  - methods and related software systems for collecting data and calculating yields, efficiencies and material variances appropriate to production environment
  - workplace information recording systems, requirements and procedures
- specifications:
  - equipment manuals, including operating parameters
  - workplace processes and procedures
  - workplace documentation, including specifications and procedures
  - relevant legislation.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## FBPFST4008 Preserve food in cans or sealed containers

### Modification History

Release	Comments
Release 1	This version released with the FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

### Application

This unit of competency describes the skills and knowledge required to process low acid foods and preserve food in hermetically sealed containers or hermetically sealed packaging.

The unit applies to individuals who have responsibility for maintaining product safety, quality and the production environment in processing and sealing food into airtight containers.

Airtight containers are described as two- and three-piece cans used in food production, as well as pouches and other sealed containers.

No occupational licensing or certification requirements apply to this unit at the time of publication. However, legislative and regulatory requirements for food processing exist, so local requirements must be checked. All work must comply with Australian food safety standards and relevant codes of practice.

### Pre-requisite Unit

Nil

### Unit Sector

Food science and technology (FST)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Supervise the preparation of the packaging materials for thermal processing	1.1 Identify suitable containers for thermal processing 1.2 Assess the container's properties, function, and integrity 1.3 Set up the container closing mechanism and undertake a trial

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	operation 1.4 Measure and calculate the characteristics of the container
2. Supervise food preparation and filling of containers	2.1 Identify the quality requirements of raw materials for processing 2.2 Ensure procedures for dicing and slicing are correctly performed 2.3 Implement the blanching process using either steam, water, microwaves or hot gas 2.4 Apply filling procedures for syrups and brines to produce the specified headspace 2.5 Weigh containers with headspaces and record drained and net weights 2.6 Carry out exhausting to remove all gases from the headspace and oxygen from the container 2.7 Monitor closing of the container
3. Ensure hermetic sealing of processed food product	3.1 Ensure materials are cooked and prepared in an aseptic environment, according to food safety requirements 3.2 Place materials into containers and hermetically seal
4. Eliminate harmful microorganisms in the hermetic sealing or canning of low acid foods	4.1 Identify microorganisms relevant to preserving of low acid foods 4.2 Interpret the D-value of microorganisms 4.3 Assess the types of microbial spoilage important in thermal processing 4.4 Document the process for eliminating the risk of microbial spoilage in a food product
5. Assess the impact of acidification in relation to hermetic sealing or canning of low acid foods	5.1 Measure the acidity of a range of foods 5.2 Identify the relationship between acidity and growth of microorganisms 5.3 Establish critical control points (CCPs) for acidified foods
6. Monitor retort operation	6.1 Load containers onto baskets 6.2 Ensure retorts are sealed 6.3 Ensure air trapped inside the retort is removed prior to processing 6.4 Build up pressure in the retort and maintain sterilisation temperature

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	6.5 Cool the container in chlorinated water
7. Review thermal processing operation	7.1 Review CCPs for thermal processing operation 7.2 Review data to ensure adherence within critical limits for each CCP 7.3 Review operating procedures to ensure a quality product

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"> <li>Interpret manuals, diagrams, drawings and other technical information relevant to processing and sealing food into airtight containers</li> <li>Interpret food safety guidelines, codes of practice, standards and regulations</li> </ul>
Numeracy	<ul style="list-style-type: none"> <li>Compute test results and tables for preserving food in airtight containers, and recognise statistical variance and deviations</li> </ul>
Get the work done	<ul style="list-style-type: none"> <li>Take corrective action in response to out-of-specification results</li> </ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPFST4008 Preserve food in cans or sealed containers	FDFST4008A Preserve food in cans or sealed containers	Updated to meet Standards for Training Packages  Minor changes to Performance Criteria to	Equivalent unit

Code and title current version	Code and title previous version	Comments	Equivalence status
		clarify intent	

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## Assessment Requirements for FBPFST4008 Preserve food in cans or sealed containers

### Modification History

Release	Comments
Release 1	This version released with the FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

### Performance Evidence

An individual demonstrating competency in this unit must satisfy all of the elements and performance criteria of this unit.

There must be evidence that the individual has safely and effectively preserved two different foods in cans and/or sealed pouches, including:

- supervising the food preparation for each process
- supervising the set-up and operation of hermetically sealed packaging or canning equipment
- establishing the critical control points (CCPs) and critical limits
- calculating pressures, temperatures and cooking times to eliminate the risk of microbial spoilage for a canning or hermetic sealing operation, including:
  - calculated the Lethality value for a product
  - calculated the Fo value from available data by using the graphical integration method and the Gillespie method
  - calculated the Sterilisation value of process by using the trapezoidal method and the microorganism population method
  - calculated the Fh value for different container sizes
  - calculated the time it would take to reach a given temperature at the slowest heating point in a can
  - constructed confidence intervals for mean and standard deviation
  - computed 't-test'
  - read and interpreted 't-table'
  - determined significance of results using 't-test'
  - calculated X2
  - tested X2 significance at 95 and 99%
  - monitored preserving process and recognised a process deviation.



## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- definition of commercial sterility
- factors that impact the thermal process
- types of thermal processing systems
- the principles and purposes for blanching
- the function and use of each system
- the parts of a retort/cooker
- principles of thermal processing, including use of a retort
- aseptic technique for packaging food under aseptic conditions
- characteristics of two-piece and three-piece (seamed) cans
- dicing, slicing, blanching and brining processes
- the types microorganisms relevant to the canning of low acid foods, including their basic structure and growth patterns
- D-value of microorganisms
- low acid foods, acidification and their relationship to the growth of organisms
- critical control points in preservation process
- the chemical properties and application of chlorine in canning, and how it affects microorganisms
- methodology for the measurement of chlorine in cooling water
- D, Z, J, Fo and Fh values
- Thermal Death Rate, Lethality value and Sterilisation value
- confidence intervals and tests of significance
- approximation
- principles of variability
- principles of variance
- relevant legislation and regulations that apply to the canning process of low acid foods
- health and safety in the workplace hazards and controls relating to work processes.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - skills must be demonstrated in a workplace setting or an environment that accurately represents a real food processing workplace
- resources, equipment and materials:
  - personal protective equipment required for processing and sealing food into airtight containers
  - production process and related equipment, manufacturers' advice and operating procedures

- equipment and facilities for carrying out canning processes and testing of thermally processed products
- specifications:
  - methods and related software systems as required for carrying out food testing and preservation, and collecting data.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## FBPFST4009 Label foods according to legislative requirements

### Modification History

Release	Comments
Release 1	This version released with the FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

### Application

This unit of competency describes the skills and knowledge required to label foods according to legislative requirements.

The unit applies to individuals who have responsibility for maintaining the product safety, quality and legislative requirements for labelling.

No occupational licensing or certification requirements apply to this unit at the time of publication. However, legislative and regulatory requirements for food processing exist, so local requirements must be checked. All work must comply with Australian food safety standards and relevant codes of practice.

### Pre-requisite Unit

Nil

### Unit Sector

Food science and technology (FST)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Identify specific criteria required for a food label	1.1 Identify components of food labels 1.2 Identify the relationship between food label and consumer information 1.3 Confirm that the ingredients in a food product are accurately described

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	1.4 Confirm that date marking is completed and linked to information on batch number and date of processing 1.5 Confirm that directions for use and storage information are provided 1.6 Confirm that country of origin information is completed to comply with requirements for food source and place of processing 1.7 Identify additional general information requirements 1.8 Source commodity-specific labelling requirements
2. Document information from the food processing operation required on the product label	2.1 Identify exemptions for nutrition information panel 2.2 Provide information on energy, protein, fat, saturated fat, carbohydrate, sugars and sodium content, and any other nutritional information required by legislation 2.3 Provide the number of servings, the average quantity of food in a serving and the unit quantity of the food 2.4 Document the declaration of weights and measures 2.5 Confirm that legislative requirements for specifying allergens and irradiated foods, percentage labelling and mandatory warning and advisory statements and declarations (including genetically modified ingredients) are included on the label
3. Produce a label for a specified food product	3.1 Collate label data and format 3.2 Use software packages to produce a nutritional panel for a food label 3.3 Assess food labels to determine compliance, and modify if necessary 3.4 Monitor the operation of labelling equipment

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
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Skill	Description
Reading	<ul style="list-style-type: none"><li>• Interpret legislative requirements and standards for food labelling</li><li>• Interpret food safety guidelines, codes of practice, standards and regulations relevant to a food processing enterprise</li><li>• Identify the legal responsibilities of a food processing company relating to product content, packaging, nutritional panels and use-by dates</li></ul>
Numeracy	<ul style="list-style-type: none"><li>• Source, collect and organise a range of data for use on product labels</li><li>• Apply units of measurement and percentage compositions of food make-up for nutrition information panel</li></ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPFST4009 Label foods according to legislative requirements	FDFST4009A Label foods according to legislative requirements	Updated to meet Standards for Training Packages  Minor changes to Performance Criteria to clarify intent	Equivalent unit

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# Assessment Requirements for FBPFST4009 Label foods according to legislative requirements

## Modification History

Release	Comments
Release 1	This version released with the FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

## Performance Evidence

An individual demonstrating competency in this unit must satisfy all of the elements and performance criteria of this unit.

There must be evidence that the individual has produced accurate labels for two different items of food that comply with the current Food Standards Code.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- legislation, regulations and standards relating to food labelling
- legal and enterprise requirements of a food label, including requirements for specifying allergens and irradiated foods, percentage labelling and mandatory warning and advisory statements and declarations (including genetically modified ingredients)
- data to be accessed to populate a product label
- legal implications of incorrect food labelling
- exemptions for nutrition information
- the relationship between the consumer and information required on a label.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - skills must be demonstrated in a workplace setting or an environment that accurately represents a real workplace
- resources, equipment and materials:
  - personal protective equipment required for labelling foods according to legislative requirements

- labelling equipment
- specifications:
  - production process, manufacturers' advice and operating procedures
  - workplace documentation, including specifications and procedures for food labels
  - food labelling legislation, codes of practice and guidelines
  - workplace information recording systems, requirements and procedures.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## FBPFST4010 Apply sensory analysis in food processing

### Modification History

Release	Comments
Release 1	This version released with the FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

### Application

This unit of competency describes the skills and knowledge required to identify sensory evaluation techniques and to use appropriate terminology when describing the organoleptic properties of food.

The unit applies to quality managers, production supervisors and testing staff who work in food and beverage processing companies and are required to implement procedures for sensory testing.

No occupational licensing or certification requirements apply to this unit at the time of publication. However, legislative and regulatory requirements for food processing exist, so local requirements must be checked. All work must comply with Australian food safety standards and relevant codes of practice.

### Pre-requisite Unit

Nil

### Unit Sector

Food science and technology (FST)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Identify the organoleptic properties of food	1.1 Recognise the five basic tastes (sweet, salty, bitter, sour and umami) 1.2 Identify the textural properties of food



Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	1.3 Identify aromas and flavours 1.4 Recognise the effect of colour on the visual properties of food
2. Confirm and implement procedures for sensory evaluation of a food product	2.1 Outline the purpose and procedures for various sensory evaluation tests 2.2 Review the methodology of the sensory evaluation tests 2.3 Identify the factors influencing sensory evaluation tests
3. Coordinate a sensory analysis panel	3.1 Instruct panellists on the procedure 3.2 Prepare samples according to sensory testing protocols 3.3 Devise or access appropriate recording documentation for the sensory evaluation test 3.4 Organise panel members and coordinate sensory testing 3.5 Record the results of the tests for analysis

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"> <li>Interpret food testing methodology and practices</li> <li>Interpret food safety guidelines, codes of practice, standards and regulations relevant to a food processing enterprise</li> </ul>
Writing	<ul style="list-style-type: none"> <li>Document and review sensory food testing results</li> <li>Record test results</li> </ul>
Numeracy	<ul style="list-style-type: none"> <li>Source, collect and organise data for applying sensory analysis in food processing</li> </ul>
Interact with others	<ul style="list-style-type: none"> <li>Use effective language and communication skills to facilitate discussions</li> </ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPFST4010 Apply sensory analysis in food processing	FDFST4010A Apply sensory analysis in food processing	Updated to meet Standards for Training Packages	Equivalent unit

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# Assessment Requirements for FBPFST4010 Apply sensory analysis in food processing

## Modification History

Release	Comments
Release 1	This version released with the FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

## Performance Evidence

An individual demonstrating competency in this unit must satisfy all of the elements and performance criteria of this unit.

There must be evidence that the individual has effectively applied sensory analysis in a food processing environment, including:

- analysing and describing the organoleptic properties of two different foods, including:
  - taste – sweet, salty, bitter, sour and umami
  - texture
  - aroma
  - flavour
  - colour
  - visual properties
- implementing procedures for sensory testing
- coordinating a taste panel made up of at least three panellists, and recording the results.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- anatomy, physiology and functions of taste and smell to determine sample appearance, texture, aroma and flavour
- the primary flavour characteristics of sweet/sour, umami and bitter/salty
- interaction of sensory activity, including the interaction between taste and smell, and effect of temperature on samples
- associated characteristics of mouth feel and appearance
- the various sensory evaluation tests used in the food processing industry

- principles and purpose of test methods implemented (why they are used and what they demonstrate)
- quality requirements for conducting a taste panel
- descriptive, discriminative and affective sensory methods
- information used to select suitable panellists
- attributes of panellists that could affect the results
- organisational quality procedures for sensory testing.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - skills must be demonstrated in a workplace setting or an environment that accurately represents a real sensory testing workplace environment
- resources, equipment and materials:
  - methods and related software systems as required for collecting data from sensory testing
  - food products for testing
- specifications:
  - sensory testing procedures and related equipment and product for samples.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# FBPFST4011 Apply the principles of nutrition to food processing

## Modification History

Release	Comments
Release 1	This version released with the FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

## Application

This unit of competency describes the skills and knowledge required to provide nutritional information on processed food and to determine procedures that optimise the nutritional value of a product.

This unit applies to individuals who work as production and technical supervisors, quality managers and members of product development teams, who are responsible for monitoring the nutritional value of processed foods, interpreting label information and assisting in development and testing of products.

No occupational licensing or certification requirements apply to this unit at the time of publication. However, legislative and regulatory requirements for food processing exist, so local requirements must be checked. All work must comply with Australian food safety standards and relevant codes of practice.

## Pre-requisite Unit

Nil

## Unit Sector

Food science and technology (FST)

## Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Interpret labelling requirements to provide nutritional information	1.1 Review food storage and preparation information on food labels 1.2 Compare the nutritional values of similar processed food products based on information supplied on the label

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	1.3 Interpret nutritional information on product labels to determine suitability for customers with specific requirements
2. Evaluate the impact of processing methods on the nutritive value of processed compared to fresh food	2.1 Determine the effect of processing on the stability and availability of macro- and micronutrients in a range of food products 2.2 Investigate processes for modification of processed foods to enhance nutritional value 2.3 Compare food storage methods for the retention of nutritive value and food chemicals, including preservatives 2.4 Investigate the nutritional impact of a range of additives for flavour or colouring enhancement 2.5 Establish permissible levels of artificial additives and write health warnings for food products
3. Contribute to the development of a food product to meet a specified dietary requirement	3.1 Identify appropriate foods for customers with specific requirements or health challenges 3.2 Identify common nutritional deficiencies and related diseases 3.3 Match the nutritional properties of foods to specified requirements 3.4 Contribute to development of a food product using nutritional knowledge

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Writing	<ul style="list-style-type: none"> <li>Document nutritional information</li> </ul>
Numeracy	<ul style="list-style-type: none"> <li>Analyse and calculate nutritional values of food products</li> </ul>
Interact with others	<ul style="list-style-type: none"> <li>Clarify the purpose and possible actions to be taken as a result of work-related communications</li> <li>Provide information about innovative practices, processes and products</li> </ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPFST4011 Apply the principles of nutrition to food processing	FDFST4011A Apply the principles of nutrition to food processing	Updated to meet Standards for Training Packages	Equivalent unit

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## Assessment Requirements for FBPFST4011 Apply the principles of nutrition to food processing

### Modification History

Release	Comments
Release 1	This version released with the FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

### Performance Evidence

An individual demonstrating competency in this unit must satisfy all of the elements and performance criteria of this unit.

There must be evidence that the individual has applied the principles of nutrition to a minimum of three different foods in a food processing environment, including:

- determining the nutritive value of processed food products based on nutritional information
- assessing the impact of food processing and preservation techniques on nutrient retention in the food product
- applying knowledge of food properties and nutrition to contribute to product development or planning.

### Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- roles of proteins, carbohydrates, vitamins and minerals, dietary fibre, lipids and water in nutrition
- the processes of digestion, absorption and energy metabolism in the human body
- the effects of processing and storage on nutrients, and the methods for overcoming these
- nutritional needs of typical customers to the business
- typical human energy requirements
- impacts of processing on nutritive properties of food
- nutritional information on food labels
- product development processes
- processing methods that reduce negative nutritional effects or cater for nutritional deficiencies
- use of additives as nutritional enhancers



- key macro- and micronutrients for a healthy diet
- dietary guidelines and legislative requirements related to processed foods
- nutrition-related risk factors and diseases
- common food intolerances and allergies
- common diseases caused by nutritional deficiencies
- modified and functional foods and nutraceuticals
- public health and environmental hazards, in relation to nutrition.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - skills must be demonstrated in a workplace setting or an environment that accurately represents a real workplace
- resources, equipment and materials:
  - production process and related equipment, food testing data and operating procedures
  - methods and related software systems for collecting data and calculating yields, efficiencies and material variances appropriate to production environment
- specifications:
  - test methods used to report relevant product/process information and recorded results
  - nutritional information on ingredients and food products.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# FBPFST4012 Apply water management principles to the food industry

## Modification History

Release	Comments
Release 1	This version released with the FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

## Application

This unit of competency describes the skills and knowledge required of quality assurance and technical staff to monitor and manage water quality and usage in a food processing operation.

This unit applies to individuals who are responsible for maintaining product safety, quality and efficiency of food processing operations that use water by managing their own work and the quality of the work of others within known parameters. This includes using discretion and judgement in the selection and use of available resources.

No occupational licensing or certification requirements apply to this unit at the time of publication. However, legislative and regulatory requirements for food processing exist, so local requirements must be checked. All work must comply with Australian food safety standards and relevant codes of practice.

## Pre-requisite Unit

Nil

## Unit Sector

Food science and technology (FST)

## Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Identify the sources and quality of water available to food	1.1 Identify current and possible future sources, and quality, of raw water 1.2 Identify the quality requirements of water for food processing

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
processing plants	operations 1.3 Assess the chemical properties and suitability of water supplied from a range of sources, including water recycled from the food processing plant 1.4 Assess the consumption of non-recycled water, and formulate a reduction strategy
2. Identify raw water pre-treatment processes	2.1 Obtain data on quality of supplied water 2.2 Document the steps involved in water purification of that water 2.3 Identify water disinfection and pre-treatment methods and equipment
3. Apply efficient and sustainable water management principles to the food processing industry	3.1 Identify opportunities for reducing water usage 3.2 Identify sources and characteristics of waste water generated across the operation 3.3 Identify methods for treating and recycling water for reuse 3.4 Identify opportunities to reduce the volume of waste water and improve treatment methods 3.5 Review procedures for future water management and set critical limits 3.6 Document outcomes of review

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"> <li>Interpret food safety, water management and environmental protection guidelines and regulations</li> <li>Interpret water management procedures</li> </ul>
Numeracy	<ul style="list-style-type: none"> <li>Analyse data resulting from testing of water</li> <li>Determine calibration procedures and schedules for test equipment</li> </ul>
Navigate the world of	<ul style="list-style-type: none"> <li>Monitor adherence to legal and regulatory standards and</li> </ul>

Skill	Description
work	responsibilities for self and others
Get the work done	<ul style="list-style-type: none"><li>Gather data and feedback to strengthen product quality and processes in the future</li></ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPFST4012 Apply water management principles to the food industry	FDFST4012A Apply water management principles to the food industry	Updated to meet Standards for Training Packages  Minor changes to Performance Criteria to clarify intent	Equivalent unit

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# Assessment Requirements for FBPFST4012 Apply water management principles to the food industry

## Modification History

Release	Comments
Release 1	This version released with the FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

## Performance Evidence

An individual demonstrating competency in this unit must satisfy all of the elements and performance criteria of this unit.

There must be evidence that the individual has safely and effectively applied water management principles to the food industry on at least one occasion, including:

- assessing the chemical properties of water to determine its suitability for use in food processing
- identifying appropriate disinfection methods
- monitoring water usage for a food processing operation
- identifying opportunities to reduce water use and improve quality
- reviewing water management procedures in food processing to reduce volume of waste water and improve water quality.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- water quality requirements, including:
  - chemical specifications, including pH, total suspended solids (TSS), total dissolved solids (TDS), heavy metals
  - microbiological specifications, including BOD, presence of fecal coliform, bacteria, cryptosporidium, Giardia
- water purification processes in general
- water disinfection methodologies and systems suitable for the food processing industry, including chlorination, ozonation and UV irradiation
- waste water treatment (relevant to a food processing plant), including primary, secondary and tertiary waste water treatment stages
- waste stream characteristics and classification in relation to the food processing industry

- methods of reducing, reusing and recycling water in a food processing operation, including implementation and routine monitoring of waste reduction practices, and use of consumable, returnable, refillable or reusable packaging
- Commonwealth, state/territory legislation and local bylaws governing prescribed wastes
- legal requirements for water discharge
- regulations relating to the processing and disposal of food waste
- the major requirements contained in the environmental protection legislation, including state/territory environmental regulatory certification procedures, permits and waste discharge agreements.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - skills must be demonstrated in a workplace setting or an environment that accurately represents a real food processing workplace
- resources, equipment and materials:
  - testing and analysis equipment
  - water samples
- specifications:
  - methods and procedures for analysing and purifying water samples
  - water management procedures.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# FBPFST5001 Monitor refrigeration and air conditioning systems in food processing

## Modification History

Release	Comments
Release 1	This version released with the FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

## Application

This unit of competency describes the skills and knowledge required to coordinate the monitoring of refrigeration and air conditioning systems in food processing and storage. The individual is required to demonstrate deep knowledge in a specific technical area and to design solutions to sometimes complex problems.

This unit applies to individuals who are responsible for maintaining product safety and quality in food processing, including general food production, meat and seafood industries, and exercise autonomy in undertaking complex work.

No occupational licensing or certification requirements apply to this unit at the time of publication. However, legislative and regulatory requirements for food processing exist, so local requirements must be checked. All work must comply with Australian food safety standards and relevant codes of practice.

## Pre-requisite Unit

Nil

## Unit Sector

Food science and technology (FST)

## Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Coordinate a refrigeration system in	1.1 Identify refrigerants and their required properties 1.2 Monitor performance of the refrigeration system in the production

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
the production of food products	process 1.3 Analyse performance of a refrigeration system 1.4 Identify and evaluate ways to improve the performance of the refrigeration system
2. Coordinate an air conditioning system in the production of food products	2.1 Identify common forms of air conditioning systems used in the production of food products 2.2 Assess air conditioning requirements for a given situation in the production process 2.3 Identify variables on a psychrometric chart 2.4 Apply psychrometric charts for the analysis of air conditioning systems in the production process 2.5 Monitor the performance of the air conditioning system in the production process 2.6 Rectify issues with performance of air conditioner 2.7 Monitor energy efficiency to reduce costs and environmental impacts 2.8 Report problems to the designated person

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"> <li>Interpret industry standards</li> <li>Interpret technical manuals for refrigeration and air conditioning systems</li> </ul>
Numeracy	<ul style="list-style-type: none"> <li>Maintain and analyse data resulting from testing of refrigeration and air conditioning system</li> <li>Determine calibration procedures and schedule for test equipment</li> </ul>
Get the work done	<ul style="list-style-type: none"> <li>Problem-solve issues as they arise</li> </ul>



## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPFST5001 Monitor refrigeration and air conditioning systems in food processing	FDFST5001A Monitor refrigeration and air conditioning systems in food processing	Updated to meet Standards for Training Packages  Minor changes to Performance Criteria to clarify intent	Equivalent unit

## Links

Companion Volume Implementation Guides are found in VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# Assessment Requirements for FBPFST5001 Monitor refrigeration and air conditioning systems in food processing

## Modification History

Release	Comments
Release 1	This version released with the FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

## Performance Evidence

An individual demonstrating competency in this unit must satisfy all of the elements and performance criteria of this unit.

There must be evidence that the individual has monitored refrigeration and/or air conditioning systems in food processing on at least one occasion, and:

- identified characteristics of a refrigeration system in the production of food products
- interpreted the function of key components in a refrigeration system
- appraised the performance of a refrigeration system in the production process
- identified the common forms of air conditioning systems used in the production of food products
- recognised common faults and identified how the faults should be rectified.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- refrigeration systems in the production of food products
- refrigerants and their properties
- function of key components in a refrigeration system
- common forms of air conditioning systems used in the production of food products
- elements and uses of psychrometric charts
- energy efficiency and environmental impacts of refrigeration and air conditioning systems
- health and safety in the workplace hazards and controls relating to work processes.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:

- skills must be demonstrated in a workplace setting or an environment that accurately represents a real workplace
- resources, equipment and materials:
  - refrigeration and air conditioning systems and related equipment, manufacturers' advice and operating procedures
- specifications:
  - operating system data.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## FBPFST5002 Identify and implement required process control for a food processing operation

### Modification History

Release	Comments
Release 1	This version released with the FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

### Application

This unit of competency describes the skills and knowledge required to determine the required process control system for a food production process. The individual is required to demonstrate deep knowledge in a specific technical area and to design and communicate solutions to sometimes complex problems.

This unit applies to individuals who are responsible for maintaining product safety, quality and efficiency in food production, including general food production, meat and seafood industries, and exercise autonomy in undertaking complex work.

No occupational licensing or certification requirements apply to this unit at the time of publication. However, legislative and regulatory requirements for food processing exist, so local requirements must be checked. All work must comply with Australian food safety standards and relevant codes of practice.

### Pre-requisite Unit

Nil

### Unit Sector

Food science and technology (FST)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Analyse production processes	1.1 Identify the processes used in the food production 1.2 Establish the characteristics used to define the operation of a

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	<p>process</p> <p>1.3 Identify the operating principles of the processes</p> <p>1.4 Establish the operating standards, capabilities and maintenance requirements for equipment and accessories used in the specified production process</p> <p>1.5 Define product characteristics and common variations</p>
2. Determine control mechanisms, modes of control and data collection points for a specified food production process	<p>2.1 Examine the operation of different types of control mechanisms</p> <p>2.2 Determine modes of control that can be used with the various control mechanisms</p> <p>2.3 Document data requirements and collection points appropriate for food safety, quality and production standards</p> <p>2.4 Adjust procedures to deal with non-conformance in relation to process and the final product</p>
3. Verify process control systems for food process	<p>3.1 Consult with appropriate operational, quality and maintenance personnel to ensure understanding of process control requirements for food processes</p> <p>3.2 Analyse standard operational procedures for accuracy and relevance</p> <p>3.3 Conduct test runs and confirm compliance with requirements</p> <p>3.4 Apply statistical analysis to verify the process and recommend required system improvements</p> <p>3.5 Arrange the ongoing collection and analysis of required data</p>

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"> <li>Interpret food safety guidelines and regulations</li> <li>Interpret standard operational procedures</li> </ul>
Navigate the world of	<ul style="list-style-type: none"> <li>Monitor adherence to legal and regulatory standards and</li> </ul>

Skill	Description
work	responsibilities for self and others
Interact with others	<ul style="list-style-type: none"> <li>Clarify the purpose and possible actions to be taken as a result of work-related communications</li> </ul>
Get the work done	<ul style="list-style-type: none"> <li>Problem-solve issues as they arise</li> <li>Monitor outcomes of decisions and identify key product quality system concepts and principles that may be adaptable to future situations</li> </ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPFST5002 Identify and implement required process control for a food processing operation	FDFST5002A Identify and implement required process control for a food processing operation	<p>Updated to meet Standards for Training Packages</p> <p>Minor changes to Performance Criteria to clarify intent</p>	Equivalent unit

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# Assessment Requirements for FBPFST5002 Identify and implement required process control for a food processing operation

## Modification History

Release	Comments
Release 1	This version released with the FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

## Performance Evidence

An individual demonstrating competency in this unit must satisfy all of the elements and performance criteria of this unit.

There must be evidence that the individual has determined the required process control for at least one food processing operation, including:

- analysing process control methods used to achieve the food safety, quality and production standards
- selecting process control mechanisms and processes appropriate to the food production operation
- adjusting procedures to deal with non-conformance
- determining data collection requirements
- monitoring data collection to ensure it is timely, relevant and accurate
- calculating, analysing and verifying relevant statistical measures
- conducting a trend analysis of food processing data
- communicating control requirements to staff
- forming conclusions from statistics-based process control information.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- the basic operating principles of equipment and accessories used in food production processes and systems
- different types of processes used in food production systems
- the inter-relationships between food processing stages and the effect of variation in processing parameters on process outcome and on final product
- specific plant process operations

- emergency shutdown procedures
- instrumentation and control systems
- the operation process control mechanisms in the relevant processing operation
- typical instrumentation used for process control in the relevant processing operation
- product specifications and tolerances
- system operating parameters
- data collection requirements for process control mechanisms
- methods used for statistical analysis of process control data
- reporting requirements for process control outcomes
- health and safety in the workplace hazards and controls relating to work processes.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - skills must be demonstrated in a workplace setting or an environment that accurately represents a real workplace
- resources, equipment and materials:
  - production process and related equipment, manufacturers' advice and operating procedures
  - methods and related software systems for collecting data and calculating yields, efficiencies and material variances appropriate to production environment
- specifications:
  - tests used to report relevant product/process information and recorded results.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>



## FBPFST5003 Construct a process control chart for a food processing operation

### Modification History

Release	Comments
Release 1	This version released with the FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

### Application

This unit of competency describes the skills and knowledge required to construct a process control chart for a food processing operation in general food production, meat and seafood industries. The unit does not cover applying statistics to analyse mechanical, electrical, electronic or fluid power systems. However, it includes applying statistics to food processing equipment to determine process capability and to construct a process control chart for the food processing operation.

This unit applies to individuals who are responsible for establishing and maintaining product safety, quality and efficiency in food processing and who undertake roles in product design or quality and production management.

No occupational licensing or certification requirements apply to this unit at the time of publication. However, legislative and regulatory requirements for food processing exist, so local requirements must be checked. All work must comply with Australian food safety standards and relevant codes of practice.

### Pre-requisite Unit

Nil

### Unit Sector

Food science and technology (FST)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Apply tools and techniques to collect and present data	1.1 Identify the key characteristics and uses of attribute and variable data 1.2 Determine the concepts of frequency and distribution 1.3 Determine the frequency and distribution of supplied data for various measurement levels 1.4 Identify and apply data collection tools, including check sheets, surveys and logs 1.5 Construct appropriate charts and graphs using available data
2. Interpret charting tools and techniques in process control	2.1 Interpret and analyse the concept of process capability and its implications 2.2 Apply probability distributions in analysing process capability 2.3 Interpret control charts used to monitor processes 2.4 Identify the application of charting methods to establishing process capability, evaluating process changes and interpreting simple experiments
3. Determine the process capability of a piece of equipment on a production line	3.1 Identify the scope and purpose of the process 3.2 Determine a representative data sample 3.3 Select appropriate data collection techniques 3.4 Collect data to meet sampling requirements 3.5 Select and apply appropriate statistical analysis techniques 3.6 Calculate all relevant parameters for the determination of process capability statistically 3.7 Incorporate the process capability value for each piece of equipment into process control for the whole operation
4. Construct a process flow chart	4.1 Identify scope and purpose of average and range charts in the food industry 4.2 Calculate all relevant parameters for use in preparing both average and range charts statistically 4.3 Prepare average and range charts, showing all pre-calculated parameters 4.4 Interpret trends and cyclic patterns of average and range charts 4.5 Design an action plan based on the results of average and range

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"><li>Interpret industry standards</li></ul>
Writing	<ul style="list-style-type: none"><li>Document recommendations regarding the outcomes of the process capability</li></ul>
Interact with others	<ul style="list-style-type: none"><li>Clarify the purpose and possible actions to be taken as a result of work-related communications</li><li>Use industry standard terminology</li></ul>
Get the work done	<ul style="list-style-type: none"><li>Monitor outcomes of decisions and identify key product quality system concepts and principles that may be adaptable to future situations</li><li>Use digital tools to monitor processes and access and organise complex data</li></ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPFST5003 Construct a process control chart for a food processing operation	FDFST5003A Construct a process control chart for a food processing operation	Updated to meet Standards for Training Packages  Minor changes to Performance Criteria to clarify intent	Equivalent unit

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>



## Assessment Requirements for FBPFST5003 Construct a process control chart for a food processing operation

### Modification History

Release	Comments
Release 1	This version released with the FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

### Performance Evidence

An individual demonstrating competency in this unit must satisfy all of the elements and performance criteria of this unit.

There must be evidence that the individual has effectively constructed a process control chart for at least one food processing operation, including:

- applying Poisson and binomial distributions to supplied attribute data
- calculating and interpreting indices of variability
- identifying skewed distributions
- calculating and interpreting indices of significance and variance
- calculating and interpreting indices of probability
- analysing control charts to monitor processes
- applying control tools and data collection techniques to determine process capability
- applying the uses of average and range charts in the food industry
- calculating statistically all relevant parameters for use in preparing both average and range chart
- preparing average and range charts showing all pre-calculated parameters
- interpreting trends and cyclic patterns of average and range charts
- preparing an action plan based on the results of average and range
- describing and calculating measure of central tendency
- identifying the principles of process capability
- calculating all relevant parameters for the determination of process capability statistically
- interpreting process capability value in relation to the overall process
- representing data in graphs, tables, averages and percentagespreparing a report with recommendations regarding the outcomes of the process capability.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- the terms statistic and parameter
- the concept of statistical inference
- principles of variability and variance
- types and causes of variation
- probability principles
- Poisson and binomial distributions
- characteristics of the normal distribution
- the role of statistical quality control
- concepts of process capability, acceptance levels and process improvement
- the relationship between probability and statistical inference
- the concept of variation within processes and recognition of its implications for process design and management
- the scope and purpose of average and range charts in the food industry
- all relevant parameters for use in preparing both average and range chart
- pre-calculations of parameters of average and range charts
- trends and cyclic patterns of average and range charts
- the preparation of an action plan based on the results of average and range
- the definition of process capability
- process capability values.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - skills must be demonstrated in a workplace setting or an environment that accurately represents a real workplace
- resources, equipment and materials:
  - production process and related equipment, manufacturers' advice and operating procedures
  - methods and related software systems for collecting data and calculating yields, efficiencies and material variances appropriate to production environment
- specifications:
  - tests used to report relevant product/process information and recorded results.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# FBPFST5004 Specify and monitor the nutritional value of processed food

## Modification History

Release	Comments
Release 1	This version released with the FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

## Application

This unit of competency describes the skills and knowledge required to provide nutritional information for processed food, and to implement procedures to optimise the nutritional value of a product.

This unit applies to individuals who are responsible for specifying and monitoring the nutritional value of foods through processing and verifying the accuracy of label information in technical management roles or product development roles.

No occupational licensing or certification requirements apply to this unit at the time of publication. However, legislative and regulatory requirements for food processing exist, so local requirements must be checked. All work must comply with Australian food safety standards and relevant codes of practice.

## Pre-requisite Unit

Nil

## Unit Sector

Food science and technology (FST)

## Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Assess the benefits of food products developed or modified to meet the	1.1 Investigate common nutritional deficiencies and related diseases 1.2 Identify appropriate diets for customers with specific requirements



Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
needs of a customer group	or health challenges 1.3 Identify and categorise modified and functional foods 1.4 Identify key macro- and micronutrients required for a healthy diet 1.5 Assess the main benefits of food products developed or modified to meet the nutritional needs of special groups
2. Specify requirements for food product to meet target need	2.1 Identify the dietary intakes and requirements for an identified consumer group 2.2 Evaluate nutritional requirements to be considered during product development 2.3 Specify nutritional requirements of processed food item
3. Evaluate methods of preserving nutrients during food processing and storage	3.1 Analyse the effects of food processing and storage conditions on the stability of nutrients 3.2 Evaluate the need for fortification of processed foods in the Australian diet 3.3 Evaluate food processing and storage methods for their impact on the nutritive value of product
4. Apply nutritional information and issues to product development, labelling and marketing of processed foods	4.1 Provide food storage and preparation information related to maintaining nutritional value and food safety 4.2 Ensure label complies with requirements of Food Standards Code 4.3 Apply organisational and National Health and Medical Research Council Australian Dietary Guidelines for nutritional information on product labels 4.4 Evaluate nutritional issues in relation to the legal and ethical marketing of processed foods

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
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Skill	Description
Reading	<ul style="list-style-type: none"><li>Interpret research and analytical materials</li><li>Interpret guidelines, standards and regulations for nutritional information on product labels</li><li>Interpret food processing and storage procedures</li></ul>
Writing	<ul style="list-style-type: none"><li>Document nutritional information and issues</li></ul>
Numeracy	<ul style="list-style-type: none"><li>Interpret analytical results and nutritional information about a product</li><li>Maintain and analyse data resulting from testing of new food products</li></ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPFST5004 Specify and monitor the nutritional value of processed food	FDFST5004A Specify and monitor the nutritional value of processed food	Updated to meet Standards for Training Packages  Rearranged Elements and Performance Criteria to clarify intent	Equivalent unit

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# Assessment Requirements for FBPFST5004 Specify and monitor the nutritional value of processed food

## Modification History

Release	Comments
Release 1	This version released with the FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

## Performance Evidence

An individual demonstrating competency in this unit must satisfy all of the elements and performance criteria of this unit.

There must be evidence that the individual has specified and monitored the nutritional value of processed food items, including:

- analysing the total nutritional components of at least one processed food product to determine whether it meets regulatory requirements and target audience needs
- evaluating nutritional issues in relation to product development, labelling and marketing of processed foods
- determining the processing requirements of food to meet specific nutritional requirements
- recognising key macronutrients required for a healthy diet
- comparing the nutritional needs of special population groups
- evaluating nutrition-related risk factors and diseases
- producing a food label that accurately reflects a product's nutritional value and complies with legislative requirements.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- Food Standards Code
- National Health and Medical Research Council Australian Dietary Guidelines
- key macro- and micronutrients for a healthy diet
- human energy requirements
- dietary guidelines and legislative requirements related to processed foods and labelling
- the effects of processing and storage on nutrients, and the methods for overcoming these effects
- the role of proteins in nutrition

- the role of carbohydrates in nutrition
- the role of vitamins and minerals in nutrition
- the role of dietary fibre
- the role of lipids in nutrition
- the body's processes and their role in nutrition
- nutrition-related risk factors and diseases
- food intolerances and allergies
- diseases caused by nutritional deficiencies
- modified and functional foods and nutraceuticals.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - skills must be demonstrated in a workplace setting or an environment that accurately represents a real workplace
- resources, equipment and materials:
  - food testing equipment, data and operating procedures
  - methods and related software systems to calculate nutritional properties of processed foods
  - sample processed food items
- specifications:
  - tests used to identify nutritional information in processed food.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# FBPFST5005 Examine the biochemical properties of food

## Modification History

Release	Comments
Release 1	This version released with the FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

## Application

This unit of competency describes the skills and knowledge required to examine biochemical substances and reactions and apply knowledge to food product development and processing. The individual is required to utilise deep knowledge of food biochemistry.

This unit applies to individuals who are responsible for maintaining product safety, quality and efficiency in food processing, including general food production, meat and seafood industries, and undertake roles in technical management and process management.

No occupational licensing or certification requirements apply to this unit at the time of publication. However, legislative and regulatory requirements for food processing exist, so local requirements must be checked. All work must comply with Australian food safety standards and relevant codes of practice.

## Pre-requisite Unit

Nil

## Unit Sector

Food science and technology (FST)

## Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Use and apply terms and concepts relating to organic substances important in food	1.1 Use biochemical terminology relating to food processing 1.2 Apply relevant concepts to explain the biochemistry in food processing

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
processing	
2. Identify biochemical compounds and explain biochemical reactions important in food processing	<p>2.1 Identify and classify biochemical carbohydrates including amino acids, proteins and lipids</p> <p>2.2 Identify the molecular structure of important biochemical compounds</p> <p>2.3 Identify chemical and physical behaviour associated with carbohydrates, amino acids, proteins and lipids, including the molecular processes taking place</p> <p>2.4 Perform basic tests to identify biochemical reactions and the associated physical and chemical changes in food processing</p>
3. Assess the impact of food processing operations on the biochemistry of processed food products	<p>3.1 Identify biochemical macro constituents and micro constituents of food</p> <p>3.2 Assess the effect of processing on biochemistry and nutritional value of foodstuffs</p> <p>3.3 Identify biochemical actions of food additives</p> <p>3.4 Identify the biochemical principles relating to the spoilage and preservation of foods</p>
4. Extract samples of product or raw materials for testing and apply the results to food production processes	<p>4.1 Establish properties of biochemical compounds and their extraction techniques for a food processing operation</p> <p>4.2 Conduct sampling as specified by the sampling plan</p> <p>4.3 Maintain sample purity and integrity prior to testing</p> <p>4.4 Use the results of tests to assist with ingredient selection and food labelling</p>

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"> <li>Interpret documentation related to biochemistry</li> <li>Interpret industry standards</li> </ul>

Skill	Description
Numeracy	<ul style="list-style-type: none"><li>• Interpret analytical results</li><li>• Maintain and analyse data from tests</li><li>• Determine calibration procedures and schedule for test equipment</li></ul>
Interact with others	<ul style="list-style-type: none"><li>• Clarify the purpose and possible actions to be taken as a result of work-related communications</li><li>• Use industry standard terminology</li></ul>
Get the work done	<ul style="list-style-type: none"><li>• Problem-solve issues as they arise</li></ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPFST5005 Examine the biochemical properties of food	FDFST5005A Identify the biochemical properties of food	Updated to meet Standards for Training Packages  Minor changes to Performance Criteria to clarify intent  Unit title updated	Equivalent unit

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## Assessment Requirements for FBPFST5005 Examine the biochemical properties of food

### Modification History

Release	Comments
Release 1	This version released with the FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

### Performance Evidence

An individual demonstrating competency in this unit must satisfy all of the elements and performance criteria of this unit.

There must be evidence that the individual has examined the biochemical properties of food, including:

- performing three different tests to identify biochemical compounds in food
- identifying the molecular structures, and chemical and physical behaviours, of carbohydrates, amino acids, proteins and lipids when processed in food
- processing, producing or extracting representative samples of biochemical compounds
- identifying the macro and micro constituents of two different processed food products
- identifying the biochemical action of at least three different food additives
- interpreting results of tests and describing the implications for food processing.

### Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- terminology relating to biochemical substances
- the structure and properties of the biochemical compounds carbohydrates including amino acids, proteins and lipids
- the major chemical constituents found in foods
- biochemical action of important food additives
- the molecular structures for important biochemical compounds
- the chemical and physical behaviour associated with carbohydrates, amino acids, proteins and lipids in terms of molecular theory
- sampling and testing techniques to determine the components and biochemical reactions for food products



- general equipment used for analysis, including hotplates, ovens, melting point and boiling point apparatus, steam baths, appropriate glassware and chemicals
- analytical instruments, including spectrometric instruments, including:
  - ultraviolet/visible
  - infrared, including Fourier transform infrared and near infrared
  - atomic absorption, including flame and flameless
- basic tests to identify biologically important biochemical materials, including:
  - Benedict's test for glucose
  - Lugol's iodine test for starch
  - biuret test for protein
  - tests for fats and oils
- common biochemical reactions relevant to food processing operations, including:
  - oxidation
  - hydrolysis
  - enzymic reactions
  - lipid isomerisation
  - lipid polymerisation
  - polysaccharide synthesis
  - glycolysis
  - protein denaturing
- health and safety hazards in the workplace and controls relating to work processes.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - skills must be demonstrated in a workplace setting or an environment that accurately represents a real workplace
- resources, equipment and materials:
  - laboratory and related equipment, manufacturers' advice and operating procedures
- specifications:
  - tests used to report relevant product/process information and recorded results.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# FBPFST5006 Apply food microbiological techniques and analysis

## Modification History

Release	Comments
Release 1	This version released with the FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

## Application

This unit of competency describes the skills and knowledge required to perform tests and conduct analysis in a food-based microbiological laboratory. The individual is required to demonstrate deep knowledge in a specific technical area and to design and communicate solutions to sometimes complex problems.

This unit applies to individuals who are responsible for analysing the microbiology of food in food processing operations and who undertake roles in technical management and production management.

No occupational licensing or certification requirements apply to this unit at the time of publication. However, legislative and regulatory requirements for food processing exist, so local requirements must be checked. All work must comply with Australian food safety standards and relevant codes of practice.

## Pre-requisite Unit

Nil

## Unit Sector

Food science and technology (FST)

## Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Identify food poisoning and spoilage bacteria, including	1.1 Identify the major bacteria responsible for food poisoning and spoilage 1.2 Evaluate the types of processes used in the control of microbial

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
methods of control	<p>growth in food products</p> <p>1.3 Determine the effect of a standard food preserving technique over a range of pH on the growth patterns of microbes</p> <p>1.4 Evaluate the effectiveness of this food preserving technique in controlling food poisoning and spoilage microbes</p> <p>1.5 Assess the usefulness of this technique as part of process control of food poisoning and spoilage microbes</p> <p>1.6 Assess compliance with Food Standards Code for food preservation techniques</p>
2. Perform microbiological techniques for the identification of food-borne disease	<p>2.1 Use standard microbiological techniques to identify and enumerate food poisoning and spoilage organisms from a food sample</p> <p>2.2 Identify the type of toxins produced by the major food pathogens</p> <p>2.3 Investigate documented food-borne disease outbreaks from the past</p> <p>2.4 Determine the ramifications of product contamination in terms of public health and product shelf-life quality</p> <p>2.5 Handle specimens and waste to comply with health and safety in the workplace guidelines</p>
3. Apply the principles of microbiological quality control	<p>3.1 Determine the spoilage patterns of specific foods at different temperatures of storage</p> <p>3.2 Determine the relationship between spoilage patterns and the growth cycle of the specific food spoilage and poisoning organisms</p> <p>3.3 Design, implement and evaluate a microbiological quality control program for a specific food in terms of the Food Standards Code</p> <p>3.4 Determine the importance of plant hygiene and how it can affect the finished product</p>
4. Apply rapid microbiological techniques and other relevant technology for the identification of microbes related to plant hygiene	<p>4.1 Examine the principles of accelerated culture techniques critically</p> <p>4.2 Identify the relevance of rapid microbiological technology, as related to control of plant hygiene</p> <p>4.3 Perform a series of tests to determine the adequacy of plant sanitation procedures by rapid microbiological or other techniques</p>
5. Perform techniques involving microbial	5.1 Identify the types and characteristics of microorganisms used for

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
fermentations	fermentation within the food industry 5.2 Use standard microbiological techniques to isolate and identify yeasts and bacteria in given food samples 5.3 Perform sub-culturing and pure culture techniques for 'scale up' to 'starter' cultures 5.4 Maintain new culture strains after fermentation using standard techniques
6. Analyse test results and provide recommendations to process controllers or production managers	6.1 Record and collate results of microbiological tests 6.2 Analyse microbiological data and compare with food safety and food processing critical control limits and other parameters 6.3 Establish implications of test results and draw conclusions 6.4 Document test results, conclusions and recommendation, and present to food processing management

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"> <li>Interpret food safety guidelines, standards and regulations</li> <li>Interpret documented processes for control of microbial growth in food products</li> </ul>
Numeracy	<ul style="list-style-type: none"> <li>Maintain and analyse data resulting from microbiological tests</li> <li>Determine calibration procedures and schedule for test equipment</li> </ul>
Interact with others	<ul style="list-style-type: none"> <li>Clarify the purpose and possible actions to be taken as a result of work-related communications</li> </ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
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FBPFST5006 Apply food microbiological techniques and analysis	FDFST5006A Apply food microbiological techniques and analysis	Updated to meet Standards for Training Packages  Minor changes to Performance Criteria to clarify intent  Prerequisite removed	Equivalent unit
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## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# Assessment Requirements for FBPFST5006 Apply food microbiological techniques and analysis

## Modification History

Release	Comments
Release 1	This version released with the FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

## Performance Evidence

An individual demonstrating competency in this unit must satisfy all of the elements and performance criteria of this unit.

There must be evidence that the individual has applied microbiological techniques to analyse food on at least two occasions, including:

- critically examining the principles of rapid microbiological techniques, including:
  - accelerated culture techniques
  - rapid biochemical tests
  - measurement of total bacteria metabolism
  - measurement of spoilage
  - non-traditional methods
  - automated and mechanised methods
- performing tests to determine the adequacy of plant sanitation procedures, by rapid microbiological or other techniques, including:
  - rinse methods
  - swab methods
  - replica or contact methods
- using standard microbiological techniques to isolate and identify yeasts and bacteria in given food samples
- performing sub-culturing and pure culture techniques for 'scale up' to 'starter' cultures
- maintaining new culture strains after fermentation using standard techniques
- recording, analysing and documenting data, with associated conclusions and recommendations
- ascertaining the effect of a standard food preserving technique on the growth patterns of microbes
- using standard microbiological techniques to identify and enumerate food poisoning and spoilage organisms from a food sample

- determining the ramifications of product contamination in terms of public health and product shelf-life
- ascertaining the spoilage patterns of specific foods at different temperatures of storage
- using industry standard terminology.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- processes used in the control of microbial growth in food products
- major bacteria responsible for food poisoning and spoilage
- processes used in the control of microbial growth in food products
- Food Standards Code
- statistical methods for process control, including Viable Count methods
- standard microbiological techniques to identify food poisoning and spoilage organisms
- the importance of plant hygiene and how it can affect the finished product
- microbiological toxins and aflatoxins
- spoilage patterns
- growth cycle of microorganisms in food
- the relationship between spoilage patterns and the growth cycle of the specific food spoilage/poisoning organisms
- microbiological quality control programs
- plant hygiene, including sanitation checks – rinse, swab, contact and rapid methods
- rapid microbiological techniques:
  - accelerated culture techniques
  - rapid biochemical tests
  - measurement of total bacteria metabolism
  - measurement of spoilage
  - non-traditional methods
  - automated and mechanised methods
- the relevance of rapid microbiological technology, as related to control of plant hygiene
- types and characteristics of fermentation microorganisms, including:
  - *Saccharomyces* spp.
  - *Streptococcus* spp.
  - *Lactobacillus* spp.
- standard microbiological techniques to isolate and identify yeasts and bacteria in given food samples
- sub-culturing and pure culture techniques for 'scale up' to 'starter' cultures
- maintenance of new culture strains after fermentation
- critical control limits and microbiological processes and species in food production
- analysis of microbiological data by comparison with food safety and production standards
- effective data presentation and reporting

- health and safety in the workplace hazards and controls relating to work processes.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - skills must be demonstrated in a workplace setting or an environment that accurately represents a real workplace
- resources, equipment and materials:
  - laboratory and related equipment, manufacturers' advice and operating procedures
  - methods and related software systems for collecting data and calculating yields, efficiencies and material variances appropriate to production environment
- specifications:
  - tests used to report relevant product/process information and recorded results.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>



# FBPFST5007 Monitor the development and implementation of a food QA system

## Modification History

Release	Comments
Release 1	This version released with the FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

## Application

This unit of competency describes the skills and knowledge required to develop and review a hazard analysis critical control point (HACCP)-based quality assurance (QA) program.

The unit applies to individuals who are responsible for the development and implementation of a HACCP- or critical control point (CCP)-based QA system in a food processing environment.

Legislative and regulatory requirements apply to food safety and are enforced through state/territory jurisdictions. Users must check with the relevant regulatory authority before delivery.

## Pre-requisite Unit

Nil

## Unit Sector

Food science and technology (FST)

## Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Establish the scope of the QA system	1.1 Define the enterprise needs and expectations in product quality 1.2 Detail existing systems and requirements for incorporation into the QA system 1.3 Define the scope of the CCP-based quality system to encompass

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	production system and product requirements 1.4 Design the system to prevent and control identified hazards
2. Conduct hazard analysis and assessment	2.1 Assess every step in the production process for potential food safety hazards 2.2 Establish CCPs to identify where each significant hazard can be prevented or controlled 2.3 Assign a measurable or recognisable standard for each CCP to define the critical limits 2.4 Validate the critical limits technically and scientifically
3. Ensure all documents, work procedures and processes required for the system are developed, available and in use	3.1 Describe all products and processes covered by the QA system in a standardised format defining product characteristics relevant to food safety 3.2 Review work instructions and standard operating procedures (SOPs) for accuracy, relevance and sufficiency to prevent hazards 3.3 Implement documented procedures for monitoring CCPs 3.4 Implement documented procedures to ensure any CCPs that are outside critical limits are brought back within limits, and affected product is suitably handled 3.5 Implement documented procedures to ensure the QA system is regularly verified and audited as working effectively 3.6 Maintain the availability and data storage of all records and documents for the system
4. Respond to non-conforming product or processes	4.1 Identify procedures for taking corrective action 4.2 Implement corrective and preventative measures to prevent recurrence 4.3 Develop or revise procedures to support control measures 4.4 Identify processes or conditions that could result in a breach of procedures, and take corrective action 4.5 Introduce process changes and control so that quality assurance requirements are accomplished
5. Review product sampling and test results	5.1 Identify product sampling procedures 5.2 Identify post-collection procedures according to SOPs 5.3 Review test results and ensure quality assurance requirements are

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	accomplished
6. Audit, verify and validate the system	6.1 Revise, verify and validate safety plans to reassess hazards, CCPs, critical limits, testing methods and all related procedures of the QA system to ensure they are appropriate to the enterprise requirements 6.2 Follow up and act on internal or external audit findings 6.3 Investigate and act on reported quality hazards and non-conformances 6.4 Review the CCP-based QA system to take account of any process changes or product specifications

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"> <li>Accurately interpret food safety guidelines and regulations</li> </ul>
Writing	<ul style="list-style-type: none"> <li>Develop clear and accessible procedures for implementing and monitoring the QA system</li> </ul>
Navigate the world of work	<ul style="list-style-type: none"> <li>Monitor adherence to workplace and regulatory standards</li> </ul>
Get the work done	<ul style="list-style-type: none"> <li>Problem-solve issues as they arise</li> <li>Use appropriate computer-based technologies and software to record, manipulate, analyse and present or report data</li> </ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPFST5007 Monitor the	FDFST4002A Monitor the	Updated to meet Standards for Training	Equivalent unit

Code and title current version	Code and title previous version	Comments	Equivalence status
development and implementation of a food QA system	development and implementation of a food QA system	Packages  Minor changes to Performance Criteria to clarify intent  Unit code updated to reflect AQF level	

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# Assessment Requirements for FBPFST5007 Monitor the development and implementation of a food QA system

## Modification History

Release	Comments
Release 1	This version released with the FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

## Performance Evidence

An individual demonstrating competency in this unit must satisfy all of the elements and performance criteria of this unit.

There must be evidence that the individual has effectively developed at least one critical control point (CCP)-based quality assurance (QA) system for a food processing environment, and used that system to monitor the production of quality food items, including:

- scoping the requirements for a QA system
- analysing a production process to identify CCPs and establish critical limits
- developing or revising procedures to maintain quality
- maintaining data and documentation for a QA system
- contributing to a review of a QA system, including verification and validation.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- the steps in the development of a hazard analysis critical control point (HACCP)-based QA system
- the steps in the systematic introduction of a CCP-based QA system to a workplace
- risks and hazards associated with food production operations
- types of CCPs applied within a food production environment, including vulnerability assessment critical control point (VACCP) and threat assessment critical control point (TACCP)
- enterprise recall and traceability procedures
- post-collection procedures for handling samples
- purpose of the CCP development and review process
- risks associated with samples, and how they can be minimised
- the types of data the enterprise uses to record performance

- the document controls associated with a procedure change
- the purpose and processes for calibrating equipment
- the purpose of standard operating procedures (SOPs) and work instructions
- sampling procedures
- the process of auditing and verifying a CCP-based QA system
- the objectives of a CCP-based QA system
- the process for validating critical limits and CCPs
- the role of prerequisite programs and good manufacturing practice (GMP) in a CCP-based program
- Food Standards Code
- GMP principles
- regulatory and workplace requirements for food processing and production
- existence of international standards that cover traceability of food and the food chain supply, consumer product recalls, quality and food safety management systems.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - skills must be demonstrated in a workplace setting or an environment that accurately represents a real workplace
- resources, equipment and materials:
  - a CCP-based QA system in a food processing environment
  - food processing equipment
  - sampling and testing equipment used to report relevant product and process information
- specifications:
  - work procedures, including advice on safe work practices, food safety, quality and environmental requirements
  - equipment manuals, including operating parameters.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## FBPFST5008 Develop a new food product

### Modification History

Release	Comments
Release 1	This version released with the FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

### Application

This unit of competency describes the skills and knowledge required to develop a new food, beverage or related product, from a concept to a packaged and labelled finished product, in general food production.

This unit applies to individuals who are responsible for food product development and who undertake roles in product design, quality assurance or production management.

No occupational licensing or certification requirements apply to this unit at the time of publication. However, legislative and regulatory requirements for food processing exist, so local requirements must be checked. All work must comply with Australian food safety standards and relevant codes of practice.

### Pre-requisite Unit

Nil

### Unit Sector

Food science and technology (FST)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Develop concept for the new product	1.1 Develop a concept for new product 1.2 Identify the potential of a new product 1.3 Determine the market for new product 1.4 Determine the viability of product concept

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
2. Identify product development parameters	2.1 Determine product parameters 2.2 Determine equipment required for producing new product 2.3 Determine analytical tests to be conducted to identify quality and safety parameters 2.4 Determine processing parameters 2.5 Determine ingredients required for producing new product
3. Trial new product	3.1 Conduct a series of trials of new product 3.2 Determine improvements and/or changes required for each successive trial 3.3 Record details of each trial
4. Analyse new product	4.1 Determine appropriate analytical tests to be conducted to verify product safety and quality 4.2 Conduct appropriate tests to determine quality and safety of product 4.3 Record test results 4.4 Determine safety and quality of product using analytical test results
5. Design label for product	5.1 Establish concept for product label 5.2 Identify requirements to ensure the product label is compliant 5.3 Develop a compliant label for the food product
6. Package product	6.1 Determine the equipment required for packaging new food product 6.2 Establish suitable packaging materials for new product 6.3 Package final product
7. Document development process	7.1 Document conceptual ideas 7.2 Conduct and document research relevant to new product 7.3 Verify and document analysed results of new product quality and safety 7.4 Document details and results of product trials and explain and justify changes to product as a result of trial



## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"> <li>Interpret research materials</li> <li>Interpret food safety guidelines, standards and regulations</li> <li>Interpret product quality and workplace procedures</li> </ul>
Numeracy	<ul style="list-style-type: none"> <li>Interpret analytical results</li> <li>Maintain and analyse data resulting from testing of new food products</li> <li>Determine calibration procedures and schedule for test equipment</li> </ul>
Interact with others	<ul style="list-style-type: none"> <li>Clarify the purpose and possible actions to be taken as a result of work-related communications</li> </ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPFST5008 Develop a new food product	FDFST5008A Develop a new food product	<p>Updated to meet Standards for Training Packages</p> <p>Minor changes to Performance Criteria to clarify intent</p>	Equivalent unit

## Links

Companion Volume Implementation Guides are found in VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# Assessment Requirements for FBPFST5008 Develop a new food product

## Modification History

Release	Comments
Release 1	This version released with the FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

## Performance Evidence

An individual demonstrating competency in this unit must satisfy all of the elements and performance criteria of this unit.

There must be evidence that the individual has developed at least one new food product, including:

- interpreting and applying food safety requirements, standards and legislative requirements
- developing product ideas and concepts
- conducting market research to inform product development
- assessing the viability of product concepts
- applying testing and sensory analysis techniques relevant to new product development
- interpreting analytical test results
- establishing processing techniques and parameters relevant to product under development
- determining safety and quality implications of product
- determining and assessing packaging options
- recording, documenting and verifying information relating to product development.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- customer needs and market research techniques
- food safety and food quality parameters
- food processing principles relevant to new product
- food testing and sensory analysis techniques
- food packaging and labelling requirements
- legislative requirements associated with new food products.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - skills must be demonstrated in a workplace setting or an environment that accurately represents a real workplace
- resources, equipment and materials:
  - laboratory facilities
  - production facilities
  - computers, printers and appropriate software packages
- specifications:
  - legislative requirements applicable to food
  - research materials, including journals, periodicals, articles, research papers and industry papers.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## FBPFST5009 Implement and review the processing of market milk and related products

### Modification History

Release	Comments
Release 1	This version released with the FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

### Application

This unit of competency describes the skills and knowledge required to implement, monitor and review the manufacture of market milk and related products.

The unit applies to individuals working in the food science and technology sector who are responsible for maintaining product safety, quality and efficiency in food production in the dairy processing sector.

No occupational licensing or certification requirements apply to this unit at the time of publication. However, legislative and regulatory requirements for food processing exist, so local requirements must be checked. All work must comply with Australian food safety standards and relevant codes of practice.

### Pre-requisite Unit

Nil

### Unit Sector

Food science and technology (FST)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Receive fresh milk and blend using standard industry data	1.1 Provide a safe working environment for milk receipt and testing 1.2 Apply receipt and testing procedures to milk from farms to determine composition

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	<p>1.3 Record and store test data</p> <p>1.4 Adjust or blend milk to suit product requirements, based on test data</p> <p>1.5 Store received milk under correct conditions</p>
2. Monitor the manufacture of market milk and related products to meet quality standards	<p>2.1 Determine the specifications for the end product</p> <p>2.2 Provide a safe working environment for the manufacture of product samples</p> <p>2.3 Identify resource requirements for the preparation and manufacture of market milk and related products</p> <p>2.4 Use a production schedule to ensure all resources and requirements are available and meet company requirements</p> <p>2.5 Address critical factors in the preparation and manufacture of market milk and related products</p> <p>2.6 Identify data requirements for food safety, quality and production standards</p> <p>2.7 Establish data collection points consistent with equipment capabilities and data requirements</p> <p>2.8 Implement or develop procedures to deal with non-conformance</p> <p>2.9 Monitor market milk and related products against required standards</p>
3. Review the preparation and manufacture of market milk and related products	<p>3.1 Utilise tests and systems to identify potential product defects and their causes in the preparation and manufacture of market milk and related products</p> <p>3.2 Apply adjustments to processes and equipment as a result of testing</p> <p>3.3 Report problems to designated personnel</p>

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"> <li>Interpret food safety guidelines and regulations</li> <li>Interpret product quality and workplace procedures</li> </ul>
Numeracy	<ul style="list-style-type: none"> <li>Maintain and analyse data resulting from testing of products</li> </ul>
Navigate the world of work	<ul style="list-style-type: none"> <li>Monitor adherence to legal and regulatory standards and responsibilities for self and others</li> </ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPFST5009 Implement and review the processing of market milk and related products	FDFST4020A Implement and review the processing of market milk and related products	<p>Updated to meet Standards for Training Packages</p> <p>Minor changes to Performance Criteria to clarify intent</p> <p>Unit code updated to reflect AQF level</p>	Equivalent unit

## Links

Companion Volume Implementation Guides are found in VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# Assessment Requirements for FBPFST5009 Implement and review the processing of market milk and related products

## Modification History

Release	Comments
Release 1	This version released with the FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

## Performance Evidence

An individual demonstrating competency in this unit must satisfy all of the elements and performance criteria of this unit.

There must be evidence that the individual has safely and effectively implemented and reviewed the manufacture of one type of market milk and one milk-related product, including:

- testing milk received to ensure compliance with quality standards
- implementing process control procedures and data collection processes
- diagnosing and reporting problems for manufacturing
- reviewing the production process to ensure compliance with food safety, quality and environmental requirements.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- the statutory compositional requirements for the different types of market milk and related products
- domestic and export markets for market milk and related products
- production systems used for the preparation and manufacture of market milk and related products
- formulation of market milk and related products
- role of major ingredients found in market milk and related products
- critical control point (CCP) principles and critical limits in a CCP program
- the purpose of each process, and processing sequence, used in the preparation and manufacture of market milk and related products
- principles of operation of equipment and accessories used in the preparation and manufacture of market milk and related products

- output of each of the processes used in the preparation and manufacture of market milk and related products
- production system requirements for the preparation and manufacture of each market milk and related product
- the resource requirements for the preparation and manufacture of market milk and related products
- chemical and physical hazards that affect milk
- procedures for milk storage, handling and preparation.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - skills must be demonstrated in a workplace setting or an environment that accurately represents a real milk processing workplace
- resources, equipment and materials:
  - production process and related equipment, manufacturers' advice and operating procedures
  - methods and related software systems for collecting data and calculating yields, efficiencies and material variances appropriate to production environment
- specifications:
  - tests used to report relevant product/process information and recorded results.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>



# FBPFST5010 Implement and review the preparation of milk for processing

## Modification History

Release	Comments
Release 1	This version released with the FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

## Application

This unit of competency describes the skills and knowledge required to implement and review the standards and procedures for receiving and preparing milk for product manufacture.

This unit applies to individuals who are responsible for maintaining product safety, quality and efficiency in the dairy processing sector, utilising knowledge of food science and processes to determine the required food safety, quality and performance of food production equipment.

No occupational licensing or certification requirements apply to this unit at the time of publication. However, legislative and regulatory requirements for food processing exist, so local requirements must be checked. All work must comply with Australian food safety standards and relevant codes of practice.

## Pre-requisite Unit

Nil

## Unit Sector

Food science and technology (FST)

## Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Receive fresh milk and blend using standard industry data	1.1 Provide a safe working environment for milk receipt and testing 1.2 Apply receipt and testing procedures for milk from farms

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	1.3 Record and store test data 1.4 Blend milk to requirements, based on test data 1.5 Store milk to meet industry standards
2. Implement procedures for separation, homogenisation and pasteurisation of received milk in preparation for further processing	2.1 Implement a sequence of activity to prepare the system for separation, homogenisation and/or pasteurisation 2.2 Implement the production schedule to ensure all resources and requirements are available and meet company requirements 2.3 Document data requirements and collection points for food safety, quality and production standards 2.4 Implement procedures to deal with non-conformance in relation to process and the final product 2.5 Set the production system to operating specifications before and during preparation and testing of received milk 2.6 Implement process control system for the preparation of milk for further processing
3. Diagnose, rectify and report problems arising from the preparation of milk for manufacture	3.1 Interpret product tests to ensure compliance with requirements 3.2 Implement a system to identify defects and abnormalities in delivered milk 3.3 Make adjustments to processes and equipment in response to analysed results 3.4 Record and report problems
4. Review production processes for preparing milk for further processing	4.1 Review the critical control points and critical limits for product safety 4.2 Undertake food tests to check product composition and compliance with further manufacturing requirements 4.3 Review operating procedures for food safety and quality 4.4 Review safe work systems for processing 4.5 Review environmental impacts and energy efficiencies for preparation of milk for processing

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"><li>Interpret food safety guidelines and regulations</li><li>Interpret product quality and workplace procedures</li></ul>
Numeracy	<ul style="list-style-type: none"><li>Maintain and analyse data resulting from testing of products</li></ul>
Get the work done	<ul style="list-style-type: none"><li>Problem-solve issues as they arise</li></ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPFST5010 Implement and review the preparation of milk for processing	FDFST4022A Implement and review the preparation of milk for processing	Updated to meet Standards for Training Packages  Minor changes to Performance Criteria to clarify intent  Unit code updated to reflect AQF level	Equivalent unit

## Links

Companion Volume Implementation Guides are found in VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# Assessment Requirements for FBPFST5010 Implement and review the preparation of milk for processing

## Modification History

Release	Comments
Release 1	This version released with the FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

## Performance Evidence

An individual demonstrating competency in this unit must satisfy all of the elements and performance criteria of this unit.

There must be evidence that the individual has effectively implemented and reviewed the preparation of milk for processing on at least one occasion, including:

- assessing the impact of processing on milk
- establishing critical control points (CCPs) and critical limits for each step in the preparation of milk for processing
- monitoring production of milk for further processing
- monitoring the implementation of the Hazard Analysis and Critical Control Points (HACCP) plan
- determining data collection and documentation requirements
- carrying out milk sampling and testing according to the HACCP plan and operational procedures
- accurately interpreting test results
- making procedural adjustments to address non-compliance
- ensuring relevant food safety standards and associated regulations are adhered to.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- the components of milk
- the hazards associated with raw milk
- the various spoilage organisms associated with milk
- the testing and processing stages in preparing milk for further processing
- the risks to milk product quality from incorrect preparation and handling of fresh milk
- output of each of the processes used in the preparation of milk for further processing

- compositional requirements for milk prepared for further processing for a range of processed milk products
- principles of operation of equipment and accessories used in the preparation of milk for further processing
- critical factors in the testing and preparation of received milk for further processing into dairy products
- processes used in the preparation and manufacture of non-fermented dairy products
- resource requirements for the preparation of milk for further processing
- potential product defects and their causes, which may arise in the preparation of milk for further processing
- milk sampling and testing
- data requirements appropriate for food safety, quality and production standards
- manufacturing processes, including materials and equipment, involved in preparing delivered milk for further processing
- manufacturing processes used to produce specialised dairy products, including whey powders, caseinates, industrial butters and infant formulas
- milk handling and its impact on properties for further processing
- chemical and physical hazards that may affect milk
- procedures for milk storage, handling and preparation
- health and safety in the workplace procedures
- sanitation and hygiene procedures
- HACCP principles and critical limits in a HACCP program
- food safety standards and regulatory requirements associated with the preparation of milk for processing.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - skills must be demonstrated in a workplace setting or an environment that accurately represents a real milk processing workplace
- resources, equipment and materials:
  - production process and related equipment, manufacturers' advice and operating procedures
  - testing equipment
- specifications:
  - tests used to report relevant product/process information and recorded results.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# FBPFST5011 Implement and review the processing of chocolate and sugar-panned products

## Modification History

Release	Comments
Release 1	This version released with the FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

## Application

This unit of competency describes the skills and knowledge required to implement and review the processing of chocolate and sugar-panned products.

This unit applies to individuals who use knowledge of food science and processes to determine the required food safety, quality and performance of food production equipment.

No occupational licensing or certification requirements apply to this unit at the time of publication. However, legislative and regulatory requirements for food processing exist, so local requirements must be checked. All work must comply with Australian food safety standards and relevant codes of practice.

## Pre-requisite Unit

Nil

## Unit Sector

Food science and technology (FST)

## Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare for the manufacture of chocolate and sugar-panned products	1.1 Identify the statutory compositional requirements for chocolate and sugar-panned products 1.2 Select the required formulation for the products 1.3 Select the appropriate production system and a sequence of

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	activity to prepare the system for operation 1.4 Prepare equipment and access the safe operating procedures for its operation
2. Monitor the preparation and manufacture of chocolate and sugar-panned products to ensure quality standards are met	2.1 Implement the production schedule to ensure all resources and requirements are available and meet company requirements 2.2 Set the production system to operating specifications before and during production 2.3 Interpret and document data requirements and collection points for food safety, quality and production standards 2.4 Implement and monitor procedures to deal with non-conformance in relation to process and the final product 2.5 Implement and monitor concentration and drying procedures 2.6 Implement and monitor process controls
3. Diagnose, rectify and report problems arising from the manufacture of chocolate and sugar-panned products	3.1 Identify product defects and the cause 3.2 Conduct a sensory analysis and analyse results 3.3 Implement adjustments to inputs, process and equipment to maintain quality of product 3.4 Report problems to designated person
4. Review production processes	4.1 Review the critical control points and critical limits for product safety 4.2 Review the operating procedures and the process control system for food safety and quality 4.3 Review the safe work systems for processing 4.4 Review environmental impacts and energy efficiencies for processing

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
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Skill	Description
Reading	<ul style="list-style-type: none"> <li>Interpret food safety guidelines and regulations</li> <li>Interpret product specifications, quality and workplace procedures</li> </ul>
Numeracy	<ul style="list-style-type: none"> <li>Maintain and analyse data resulting from testing of products</li> <li>Determine calibration procedures and schedule for test equipment</li> </ul>
Navigate the world of work	<ul style="list-style-type: none"> <li>Monitor adherence to legal and regulatory standards and responsibilities for self and others</li> </ul>
Interact with others	<ul style="list-style-type: none"> <li>Clarify the purpose and possible actions to be taken as a result of work-related communications</li> </ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPFST5011 Implement and review the processing of chocolate and sugar-panned products	FDFST4030A Implement and review the processing of chocolate and sugar-panned products	<p>Updated to meet Standards for Training Packages</p> <p>Minor changes to Performance Criteria to clarify intent</p> <p>Unit code updated to reflect AQF level</p>	Equivalent unit

## Links

Companion Volume Implementation Guides are found in VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# Assessment Requirements for FBPFST5011 Implement and review the processing of chocolate and sugar-panned products

## Modification History

Release	Comments
Release 1	This version released with the FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

## Performance Evidence

An individual demonstrating competency in this unit must satisfy all of the elements and performance criteria of this unit.

There must be evidence that the individual has effectively implemented and reviewed the processing of at least two different chocolate and sugar-panned products, including:

- selecting and planning the production process for each product
- implementing production systems and monitoring the output of each process
- recognising the organoleptic properties of different types of chocolate and sugar-panned products
- determining and conducting testing protocols for quality assessment
- operating equipment and accessories used in the preparation and manufacture of chocolate and sugar-panned products
- completing data collection and documentation required for quality control
- assessing production procedures against food safety and quality requirements
- identifying and addressing defects during production and of final products.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- the statutory compositional requirements for the different types of chocolate and sugar-panned products
- the types of chocolate and sugar-panned products, their formulation, and the type of coating process used in their production
- the relevant properties of the various centres used in panned products, including melting point, moisture content, shape, size, surface finish and preparation
- crystallisation behaviour of fats, sugars and sugar substitute materials

- the effect of air flow, air temperature and air humidity on the drying/setting rates of coatings and the relationship to product characteristics
- polishing materials and methods and their application
- production systems used for the production of panned products, including types of coating pans, methods of coating material addition, and process air supply requirements
- the production system for the preparation and manufacture of chocolate and sugar-panned products, including production instruction, quality assurance requirements and or/specifications, production specification and or/standards, production equipment, production procedures, cleaning procedures and materials and raw materials
- critical factors in the preparation and manufacture of chocolate and sugar-panned products
- resource requirements and environmental impacts of the preparation and manufacture of chocolate and sugar-panned products
- potential product defects and their causes, which may arise in the preparation and manufacture of chocolate and sugar-panned products
- stages of production, critical control points and critical limits
- quality and continuous improvement processes
- sensory analysis techniques
- health and safety in the workplace hazards and controls relating to work processes.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - skills must be demonstrated in a workplace setting or an environment that accurately represents a real food production workplace
- resources, equipment and materials:
  - production process and related equipment, manufacturers' advice and operating procedures
- specifications:
  - tests used to report relevant product/process information and recorded results.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# FBPFST5012 Implement and review the processing of aerated confectioneries

## Modification History

Release	Comments
Release 1	This version released with the FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

## Application

This unit of competency describes the skills and knowledge required to implement and review the preparation and manufacture of aerated confectioneries.

The unit applies to individuals who use knowledge of food science and processes to determine the required food safety, quality and performance of food production equipment.

No occupational licensing or certification requirements apply to this unit at the time of publication. However, legislative and regulatory requirements for food processing exist, so local requirements must be checked. All work must comply with Australian food safety standards and relevant codes of practice.

## Pre-requisite Unit

Nil

## Unit Sector

Food science and technology (FST)

## Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare for the manufacture of aerated confectioneries	1.1 Identify the statutory compositional requirements for aerated confectioneries 1.2 Select the required formulation for the aerated confectionery product

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	<p>1.3 Select the appropriate production system and a sequence of activity to prepare the system for operation</p> <p>1.4 Prepare equipment and access safe operating procedures for its operation</p>
2. Monitor the manufacture of aerated confectioneries to ensure quality standards are met	<p>2.1 Implement the production schedule to ensure all resources and requirements are available and meet company requirements</p> <p>2.2 Set the production system to operating specifications before and during production</p> <p>2.3 Interpret and document data requirements and collection points for food safety, quality and production standards</p> <p>2.4 Implement and monitor procedures to deal with non-conformance in relation to process and the final product</p> <p>2.5 Implement and monitor concentration and drying procedures</p> <p>2.6 Implement and monitor process control systems</p>
3. Diagnose, rectify and report problems arising from the preparation and manufacture of aerated confectioneries	<p>3.1 Identify product defects and the cause</p> <p>3.2 Conduct a sensory analysis and analyse results</p> <p>3.3 Implement adjustments to inputs, process and equipment to maintain quality of product</p> <p>3.4 Report problems to designated person</p>
4. Review production processes	<p>4.1 Review the critical control points and critical limits for product safety</p> <p>4.2 Review the operating procedures and the process control system for food safety and quality</p> <p>4.3 Review the safe work systems for processing</p> <p>4.4 Review environmental impacts and energy efficiencies for processing</p>

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"><li>Interpret food safety guidelines and regulations</li><li>Interpret product specifications, quality and workplace procedures</li></ul>
Numeracy	<ul style="list-style-type: none"><li>Maintain and analyse data resulting from testing of products</li><li>Determine calibration procedures and schedule for test equipment</li></ul>
Navigate the world of work	<ul style="list-style-type: none"><li>Monitor adherence to legal and regulatory standards and responsibilities for self and others</li></ul>
Interact with others	<ul style="list-style-type: none"><li>Clarify the purpose and possible actions to be taken as a result of work-related communications</li></ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPFST5012 Implement and review the processing of aerated confectioneries	FDFST4031A Implement and review the processing of aerated confectioneries	<p>Updated to meet Standards for Training Packages.</p> <p>Minor changes to Performance Criteria to clarify intent.</p> <p>Unit code updated to reflect AQF level.</p>	Equivalent unit

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# Assessment Requirements for FBPFST5012 Implement and review the processing of aerated confectioneries

## Modification History

Release	Comments
Release 1	This version released with the FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

## Performance Evidence

An individual demonstrating competency in this unit must satisfy all of the elements and performance criteria of this unit.

There must be evidence that the individual has effectively implemented and reviewed the processing of at least two different types of aerated confectioneries, including:

- selecting and planning the production process for each product
- implementing production systems and monitoring the output of each process
- aerating different confectionery masses and forming these masses to maintain the desired degree of aeration
- operating equipment and accessories for the preparation and manufacture of aerated confectioneries
- using testing protocols for quality assessment
- completing data collection and documentation required for quality control
- assessing production procedures against food safety and quality requirements
- identifying and addressing defects during production and of final products.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- the statutory compositional requirements for the different types of aerated confectioneries
- the range of aerated confectioneries, including chocolate, fat-based fillings, nougats, jelly foams, marshmallows, high boils and brittles
- the formulation, method of manufacture, method of forming and packaging of aerated confectioneries
- the processes used to aerate different confectionery masses and form these masses to maintain the desired degree of aeration
- the role of the major ingredients found in aerated confectioneries

- the role, properties and use of different aerating agents
- critical aspects of product aeration, including product viscosity, bubble size, product graining or crystallising
- production systems used for the preparation and manufacture of aerated confectioneries
- preparation and manufacture of aerated confectioneries, including packaging, storage and distribution
- potential product defects and their causes, which may arise in the preparation and manufacture of aerated confectioneries
- stages of production, critical control points and critical limits
- resource requirements and environmental impacts of the preparation and manufacture of aerated confectioneries
- quality and continuous improvement processes
- sensory analysis techniques
- health and safety in the workplace hazards and controls relating to work processes.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - skills must be demonstrated in a workplace setting or an environment that accurately represents a real workplace
- resources, equipment and materials:
  - production process and related equipment, manufacturers' advice and operating procedures
- specifications:
  - tests used to report relevant product/process information and recorded results.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>



# FBPFST5013 Implement and review the production of gums and jellies

## Modification History

Release	Comments
Release 1	This version released with the FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

## Application

This unit of competency describes the skills and knowledge required to implement and review the preparation and manufacture of gums and jellies. The individual is required to use knowledge of food science and processes to determine the required food safety, quality and performance of food production equipment.

This unit applies to individuals who are responsible for maintaining product safety, quality and efficiency in food processing by managing their own work and the quality of the work of others within known parameters.

No occupational licensing or certification requirements apply to this unit at the time of publication. However, legislative and regulatory requirements for food processing exist, so local requirements must be checked. All work must comply with Australian food safety standards and relevant codes of practice.

## Pre-requisite Unit

Nil

## Unit Sector

Food science and technology (FST)

## Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare for the manufacture of gums and	1.1 Establish the statutory compositional requirements for the different types of gums and jellies

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
jellies	1.2 Select the required formulation of gums and jellies 1.3 Select the appropriate production system and the preferred sequence of activity to prepare the system for operation 1.4 Prepare equipment and access the safe operating procedures for its operation
2. Monitor the manufacture of gums and jellies to ensure quality standards are met	2.1 Implement the production schedule to ensure all resources and requirements are available and meet company requirements 2.2 Set the production system to operating specifications before and during production 2.3 Interpret and document data requirements and collection points appropriate for food safety, quality and production standards 2.4 Implement and monitor procedures to deal with non-conformance in relation to process and the final product 2.5 Implement and monitor cooking and moulding procedures 2.6 Implement and monitor process control systems
3. Diagnose, rectify and report problems arising from the preparation and manufacture of gums and jellies	3.1 Identify product defects and the cause 3.2 Conduct a sensory analysis and analyse results 3.3 Implement adjustments to inputs, process and equipment to maintain quality of product 3.4 Report problems to designated person
4. Review production processes	4.1 Review the critical control points and critical limits for product safety 4.2 Review the operating procedures and the process control system for food safety and quality 4.3 Review the safe work systems for processing 4.4 Review environmental impacts and energy efficiencies for processing

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"> <li>Interpret food safety guidelines and regulations</li> <li>Interpret product specifications, quality and workplace procedures</li> </ul>
Numeracy	<ul style="list-style-type: none"> <li>Maintain and analyse data resulting from testing of products</li> <li>Determine calibration procedures and schedule for test equipment</li> </ul>
Navigate the world of work	<ul style="list-style-type: none"> <li>Monitor adherence to legal and regulatory standards and responsibilities for self and others</li> </ul>
Interact with others	<ul style="list-style-type: none"> <li>Clarify the purpose and possible actions to be taken as a result of work-related communications</li> </ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPFST5013 Implement and review the production of gums and jellies	FDFST4032A Implement and review the production of gums and jellies	<p>Updated to meet Standards for Training Packages</p> <p>Minor changes to Performance Criteria to clarify intent</p> <p>Unit code updated to reflect AQF level</p>	Equivalent unit

## Links

Companion Volume Implementation Guides are found in VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# Assessment Requirements for FBPFST5013 Implement and review the production of gums and jellies

## Modification History

Release	Comments
Release 1	This version released with the FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

## Performance Evidence

An individual demonstrating competency in this unit must satisfy all of the elements and performance criteria of this unit.

There must be evidence that the individual has effectively implemented and reviewed the processing of at least two different gums and jellies, including:

- selecting and planning the production process for each product
- implementing production systems and monitoring the output of each process
- determining and conducting testing protocols for quality assessment
- operating equipment and accessories used in the preparation and manufacture of gums and jellies
- finishing gelatinised products to prevent sticking
- checking product against market specifications
- completing data collection and documentation required for quality control
- assessing production procedures against food safety and quality requirements
- identifying and addressing defects during production and of final products.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- the statutory compositional requirements for the different types of gums and jellies
- the formulations, methods of manufacture, methods of forming and packaging of gums and jellies
- the range of gelatinised products including 'gummi' and other types of starch moulded products, liquorice and Turkish delight, and their formulations
- processes used to gelatinise different confectionery masses and form these masses to maintain the desired product shape
- the role of the major ingredients found in gums and jellies

- the role, properties and use of different gelatinising agents, including gelatine, starches, pectin and agar
- critical factors in the preparation and manufacture of gums and jellies
- the production system for the preparation and manufacture of gums and jellies, including production instruction, quality assurance requirements and or/specifications, production specification and or/standards, production equipment, production procedures, cleaning procedures and materials and raw materials
- potential product defects and their causes in the preparation and manufacture of gums and jellies
- stages of production, critical control points and critical limits
- resource requirements and environmental impacts of the preparation and manufacture of gums and jellies
- quality and continuous improvement processes
- sensory analysis techniques
- health and safety in the workplace hazards and controls relating to work processes.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - skills must be demonstrated in a workplace setting or an environment that accurately represents a real food production workplace
- resources, equipment and materials:
  - production process and related equipment, manufacturers' advice and operating procedures
- specifications:
  - tests used to report relevant product/process information and recorded results.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# FBPFST5014 Implement and review the production of chocolate products

## Modification History

Release	Comments
Release 1	This version released with the FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

## Application

This unit of competency describes the skills and knowledge required to implement and review the preparation and manufacture of chocolate products.

This unit applies to individuals who are responsible for maintaining product safety, quality assurance and production management. The individual is required to use knowledge of food science and processes to determine the required food safety, quality and performance from food production equipment.

No occupational licensing or certification requirements apply to this unit at the time of publication. However, legislative and regulatory requirements for food processing exist, so local requirements must be checked. All work must comply with Australian food safety standards and relevant codes of practice.

## Pre-requisite Unit

Nil

## Unit Sector

Food science and technology (FST)

## Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare for the manufacture of chocolate products	1.1 Identify the statutory compositional requirements for the different types of chocolate products

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	<p>1.2 Select the required formulation and design of chocolate products</p> <p>1.3 Select the appropriate production system and a sequence of activity to prepare the system for operation</p> <p>1.4 Prepare equipment and access safe operating procedures for its operation</p>
2. Monitor the manufacture of chocolate products to ensure quality standards are met	<p>2.1 Source bulk chocolate to meet the product specifications</p> <p>2.2 Implement the production schedule, ensuring all resources and requirements are available and meet company requirements</p> <p>2.3 Set the production system to operating specifications before and during production</p> <p>2.4 Interpret and document data requirements and collection points for food safety, quality and production standards</p> <p>2.5 Implement and monitor procedures to deal with non-conformance in relation to process and the final product</p> <p>2.6 Implement and monitor process control systems</p>
3. Diagnose, rectify and report problems arising from the preparation and manufacture of chocolate products	<p>3.1 Implement a sampling plan to produce samples for analysis</p> <p>3.2 Establish sensory evaluation and product testing protocols to identify defects and maintain organoleptic quality of product</p> <p>3.3 Implement adjustments to inputs, process and equipment in response to analysed results</p> <p>3.4 Report problems to designated person</p>
4. Review production processes	<p>4.1 Review the critical control points and critical limits for product safety</p> <p>4.2 Review the operating procedures and the process control system for food safety and quality</p> <p>4.3 Review the safe work systems for processing</p> <p>4.4 Review environmental impacts and energy efficiencies for processing</p>

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"><li>Interpret food safety guidelines and regulations</li><li>Interpret product quality and workplace procedures</li></ul>
Writing	<ul style="list-style-type: none"><li>Develop procedures for implementing and monitoring a product quality system</li><li>Document review of a production system</li></ul>
Numeracy	<ul style="list-style-type: none"><li>Maintain and analyse data resulting from testing of products</li><li>Determine calibration procedures and schedule for test equipment</li></ul>
Navigate the world of work	<ul style="list-style-type: none"><li>Monitor adherence to legal and regulatory standards and responsibilities for self and others</li></ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPFST5014 Implement and review the production of chocolate products	FDFST4033A Implement and review the production of chocolate products	Updated to meet Standards for Training Packages  Minor changes to Performance Criteria to clarify intent  Unit code updated to reflect AQF level	Equivalent unit

## Links

Companion Volume Implementation Guides are found in VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>



# Assessment Requirements for FBPFST5014 Implement and review the production of chocolate products

## Modification History

Release	Comments
Release 1	This version released with the FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

## Performance Evidence

An individual demonstrating competency in this unit must satisfy all of the elements and performance criteria of this unit.

There must be evidence that the individual has effectively implemented and reviewed the production of at least two chocolate products, including:

- selecting, planning and implementing the production processes to manufacture chocolate products
- monitoring the output of each of the processes used in the preparation and manufacture of chocolate products
- recognising the organoleptic properties of different types of chocolate products
- determining testing protocols for quality assessment
- operating equipment and accessories used for the preparation and manufacture of chocolate products
- completing data collection and documentation required for quality control
- assessing production procedures against food safety and quality requirements
- identifying defects during production and of final products, and rectifying issues.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- the statutory compositional requirements for the different types of chocolate products
- types of chocolate and compound chocolate and the ingredients used to manufacture each
- critical factors in the preparation and manufacture of chocolate products
- forming processes used in the manufacture of chocolate products, including enrobing, moulding (shell, one-shot, pocket), hollow goods moulding ('spinning'), drop depositing and cluster depositing

- the role of tempering, especially with regard to chocolate, and its relationship to key product attributes including shine, bloom formation, snap, hardness and shrinkage
- the rheological properties (plastic viscosity and yield value) of liquid chocolate and their relationship to the forming process use
- the role of the major ingredients found in chocolate products
- the production system for the preparation and manufacture of chocolate products, including production instruction, quality assurance requirements and or/specifications, production specification and or/standards, production equipment, production procedures, cleaning procedures and materials and raw materials
- cooling processes used for chocolate and compound chocolate
- identification of defects during production and of final product stages of production, critical control points and critical limits
- resource requirements and environmental impacts of the preparation and manufacture of chocolate products
- product defects and their causes, which may arise in the preparation and manufacture of chocolate products
- quality and continuous improvement processes
- sensory analysis techniques
- health and safety in the workplace hazards and controls relating to work processes.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - skills must be demonstrated in a workplace setting or an environment that accurately represents a real chocolate manufacturing workplace
- resources, equipment and materials:
  - production process and related equipment, manufacturers' advice and operating procedures
- specifications:
  - tests used to report relevant product/process information and recorded results.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# FBPFST5015 Implement and review the processing of chocolate

## Modification History

Release	Comments
Release 1	This version released with the FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

## Application

This unit of competency describes the skills and knowledge required to implement and review the manufacture of chocolate.

This unit applies to individuals who use knowledge of food science and processes to determine the required food safety, quality and performance of food production equipment.

No occupational licensing or certification requirements apply to this unit at the time of publication. However, legislative and regulatory requirements for food processing exist, so local requirements must be checked. All work must comply with Australian food safety standards and relevant codes of practice.

## Pre-requisite Unit

Nil

## Unit Sector

Food science and technology (FST)

## Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare for the manufacturing of chocolate	1.1 Identify the statutory compositional requirements for chocolate 1.2 Select the required formulation for the chocolate 1.3 Select the appropriate production system and a sequence of activity to prepare the system for operation 1.4 Prepare equipment and access safe operating procedure for its

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	operation
2. Carry out preparation and manufacture of quality chocolate products	2.1 Implement the production schedule to ensure all resources and requirements are available and meet company requirements 2.2 Set the production system to operating specifications for mixing, refining, conching and storage of chocolate 2.3 Interpret and document data requirements for food safety, quality and production standards 2.4 Identify data collection points consistent with equipment capabilities and data requirements 2.5 Implement and monitor procedures to deal with non-conformance in relation to process and the final product 2.6 Implement and monitor process control system
3. Diagnose, rectify and report problems arising from the preparation and manufacture of chocolate	3.1 Identify defects in chocolate and the cause 3.2 Conduct a sensory analysis and analyse results 3.3 Implement adjustments to inputs, process and equipment to maintain quality of product 3.4 Report problems to designated person
4. Review production processes	4.1 Review the critical control points and critical limits for product safety 4.2 Review the operating procedures and the process control system for food safety and quality 4.3 Review the safe work systems for processing 4.4 Review environmental impacts and energy efficiencies for processing

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
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Skill	Description
Reading	<ul style="list-style-type: none"> <li>Interpret food safety guidelines and regulations</li> <li>Interpret product specifications, quality and workplace procedures</li> </ul>
Numeracy	<ul style="list-style-type: none"> <li>Maintain and analyse data resulting from testing of products</li> <li>Determine calibration procedures and schedule for test equipment</li> </ul>
Navigate the world of work	<ul style="list-style-type: none"> <li>Monitor adherence to legal and regulatory standards and responsibilities for self and others</li> </ul>
Interact with others	<ul style="list-style-type: none"> <li>Clarify the purpose and possible actions to be taken as a result of work-related communications</li> </ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPFST5015 Implement and review the processing of chocolate	FDFST4034A Implement and review the processing of chocolate	<p>Updated to meet Standards for Training Packages</p> <p>Minor changes to Performance Criteria to clarify intent</p> <p>Unit code updated to reflect AQF level</p>	Equivalent unit

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# Assessment Requirements for FBPFST5015 Implement and review the processing of chocolate

## Modification History

Release	Comments
Release 1	This version released with the FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

## Performance Evidence

An individual demonstrating competency in this unit must satisfy all of the elements and performance criteria of this unit.

There must be evidence that the individual has effectively implemented and reviewed the processing of at least two different types of chocolate, including:

- selecting and planning the production process for each
- implementing production processes for each product, including mixing, refining, conching and storage
- monitoring the output of each of the processes used in the preparation and manufacture of chocolate
- recognising the organoleptic properties of different types of chocolate
- operating equipment and accessories for the preparation and manufacture of chocolate
- determining testing protocols for quality assessment
- completing data collection and documentation required for quality control
- assessing production procedures against food safety and quality requirements
- identifying and addressing defects during production and of final products.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- critical factors in the preparation and manufacture of chocolate
- types of chocolate and compound chocolate and the ingredients used to manufacture each type
- crystallisation behaviour of fats, especially cocoa butter
- rheological properties of chocolate and compound chocolate as a liquid and the role of emulsifiers in these
- the role of particle size and particle size distribution on chocolate properties

- the production system for the preparation and manufacture of chocolate, including production instruction, quality assurance requirements and or/specifications, production specification and or/standards, production equipment, production procedures, cleaning procedures and materials and raw materials
- resource requirements and environmental impacts of the preparation and manufacture of chocolate
- identification of defects during production and of final products
- the statutory compositional requirements for the different types of chocolate
- stages of production, critical control points and critical limits
- quality and continuous improvement processes
- sensory analysis techniques
- health and safety in the workplace hazards and controls relating to work processes.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - skills must be demonstrated in a workplace setting or an environment that accurately represents a real food production workplace
- resources, equipment and materials:
  - production process and related equipment, manufacturers' advice and operating procedures
- specifications:
  - tests used to report relevant product/process information and recorded results.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# FBPFST5016 Implement and review the processing of high and low boil confectionery

## Modification History

Release	Comments
Release 1	This version released with the FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

## Application

This unit of competency describes the skills and knowledge required to implement and review the manufacturing of high and low boil confectionery.

This unit applies to individuals who have roles in product design, quality assurance and production management. The unit typically applies to staff who have responsibility for maintaining product safety, quality and efficiency in food production in the confectionery sector.

No occupational licensing or certification requirements apply to this unit at the time of publication. However, legislative and regulatory requirements for food processing exist, so local requirements must be checked. All work must comply with Australian food safety standards and relevant codes of practice.

## Pre-requisite Unit

Nil

## Unit Sector

Food science and technology (FST)

## Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Carry out the preparation and manufacture of high and	1.1 Prepare equipment and accessories for the preparation and manufacture of high and low boil confectionery



Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
low boil confectionery to meet quality standards	1.2 Assemble and prepare ingredients and check product formulations 1.3 Select the appropriate production system and a sequence of activity to prepare the system for operation
2. Monitor the preparation and manufacture of high and low boil confectionery products to ensure quality standards are met	2.1 Implement standard operating procedures 2.2 Implement the production schedule, ensuring all resources and requirements are available and meet company standards 2.3 Set the production system to operating specifications before and during production 2.4 Interpret and document data requirements for food safety, quality and production standards 2.5 Determine data collection points consistent with equipment capabilities and data requirements 2.6 Develop procedures to deal with non-conformance in relation to process and the final product 2.7 Implement and monitor process control system
3. Diagnose, rectify and report problems arising from the preparation and manufacture of high and low boil confectionery	3.1 Establish sensory evaluation and product testing protocols to identify defects and maintain organoleptic quality of product 3.2 Implement adjustments to inputs, process and equipment in response to analysed results 3.3 Report problems to designated person
4. Review production processes	4.1 Review the critical control points and critical limits for product safety 4.2 Implement a sampling plan 4.3 Conduct a sensory analysis and analyse results 4.4 Review the operating procedures and the process control system for food safety and quality 4.5 Review the safe work systems for processing 4.6 Review the environmental impacts and energy efficiencies for processing

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"> <li>Interpret food safety guidelines and regulations</li> <li>Interpret product specifications, quality and workplace procedures</li> </ul>
Numeracy	<ul style="list-style-type: none"> <li>Maintain and analyse data resulting from testing of products</li> <li>Determine calibration procedures and schedules for test equipment</li> </ul>
Navigate the world of work	<ul style="list-style-type: none"> <li>Monitor adherence to legal and regulatory standards and responsibilities for self and others</li> <li>Use industry terminology</li> </ul>
Interact with others	<ul style="list-style-type: none"> <li>Clarify the purpose and possible actions to be taken as a result of work-related communications</li> </ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPFST5016 Implement and review the processing of high and low boil confectionery	FDFST4035A Implement and review the processing of high and low boil confectionery	<p>Updated to meet Standards for Training Packages</p> <p>Minor changes to Performance Criteria to clarify intent</p> <p>Unit code updated to reflect AQF level</p>	Equivalent unit

## Links

Companion Volume Implementation Guides are found in VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## Assessment Requirements for FBPFST5016 Implement and review the processing of high and low boil confectionery

### Modification History

Release	Comments
Release 1	This version released with the FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

### Performance Evidence

An individual demonstrating competency in this unit must satisfy all of the elements and performance criteria of this unit.

There must be evidence that the individual has effectively implemented and reviewed the processing of at least two high and low boil confectionery products, including:

- selecting the formulation, method of manufacture, method of forming and packaging of high and low boil confectionery
- implementing a production schedule to meet company requirements
- recognising the organoleptic properties of different types of high and low boil confectionery
- determining testing protocols for quality assessment
- operating equipment and accessories used in the preparation and manufacture of high and low boil confectionery
- completing data collection and documentation required for quality control
- assessing production procedures against food safety and quality requirements
- identifying and addressing defects during production and of final products.

### Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- the statutory compositional requirements for the different types of high and low boil confectionery
- different types of high and low boil confectionery and their formulation
- purpose of each process used in the preparation and manufacture of high and low boil confectionery
- outputs of each of the processes used in the preparation and manufacture of high and low boil confectionery

- potential product defects and their causes, which may arise in the preparation and manufacture of high and low boil confectionery
- critical factors in the preparation and manufacture of high and low boil confectionery
- solubility and crystallisation properties of ingredients used and their relationship to texture
- relationship of the boiling point of a confectionery syrup to its soluble solids content
- the relationship of pressure and vacuum to the boiling point of a confectionery syrup of a specific soluble solids content and the uses made in production of this relationship
- the concept of equilibrium relative humidity (ERH) or water activity (aw) of a confectionery product
- resource requirements and environmental impacts of the preparation and manufacture of high and low boil confectionery
- stages of production, critical control points and critical limits
- packaging procedures
- quality and continuous improvement processes
- sensory analysis techniques and analysis
- health and safety in the workplace hazards and controls relating to work processes.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - skills must be demonstrated in a workplace setting or an environment that accurately represents a real confectionery production workplace
- resources, equipment and materials:
  - production process and related equipment, manufacturers' advice and operating procedures
- specifications:
  - tests used to report relevant product/process information and recorded results.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# FBPFST5017 Implement and review the processing of confectionery products

## Modification History

Release	Comments
Release 1	This version released with the FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

## Application

This unit of competency describes the skills and knowledge required to implement and review the preparation and manufacture of confectionery products.

This unit applies to individuals who have roles in product design, quality assurance and production management. The individual is required to use knowledge of food science and processes to determine the required food safety, quality and performance of food production equipment.

No occupational licensing or certification requirements apply to this unit at the time of publication. However, legislative and regulatory requirements for food processing exist, so local requirements must be checked. All work must comply with Australian food safety standards and relevant codes of practice.

## Pre-requisite Unit

Nil

## Unit Sector

Food science and technology (FST)

## Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare for the manufacture of confectionery products	1.1 Identify the statutory compositional requirements for the different types of confectionery products

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	<p>1.2 Select the required formulation of confectionery products</p> <p>1.3 Select the appropriate production system and a sequence of activity to prepare the system for operation</p> <p>1.4 Prepare equipment and access safe operating procedures for its operation</p>
2. Monitor the manufacture of confectionery products to ensure quality standards are met	<p>2.1 Implement the production schedule, ensuring all resources and requirements are available and meet company requirements</p> <p>2.2 Set the production system to operating specifications before and during production</p> <p>2.3 Implement and monitor concentration and drying procedures</p> <p>2.4 Interpret and document data requirements and collection points appropriate for food safety, quality and production standards</p> <p>2.5 Implement and monitor procedures to deal with non-conformance in relation to process and the final product</p> <p>2.6 Implement and monitor process controls</p>
3. Diagnose, rectify and report problems arising from the preparation and manufacture of confectionery products	<p>3.1 Implement a sampling plan to produce samples for analysis</p> <p>3.2 Conduct sensory evaluation and product testing protocols to identify defects and maintain organoleptic quality of product</p> <p>3.3 Implement adjustments to inputs, process and equipment in response to analysed results</p> <p>3.4 Report problems to designated person</p>
4. Review production processes	<p>4.1 Review the critical control points (CCPs) and critical limits for product safety relating to the relevant hazard analysis critical control point (HACCP)-based food safety plan</p> <p>4.2 Review the operating procedures and the process control system for food safety and quality</p> <p>4.3 Review the safe work systems for processing</p> <p>4.4 Review the environmental impacts and energy efficiencies for processing</p> <p>4.5 Review controls of non-conforming products, including rework or safe disposal where required</p>

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"><li>• Interpret food safety guidelines and regulations</li><li>• Interpret product specifications, quality and workplace procedures</li></ul>
Oral communication	<ul style="list-style-type: none"><li>• Use industry terminology</li></ul>
Numeracy	<ul style="list-style-type: none"><li>• Maintain and analyse data resulting from testing of products</li><li>• Determine calibration procedures and schedule for test equipment</li></ul>
Navigate the world of work	<ul style="list-style-type: none"><li>• Monitor adherence to legal and regulatory standards and responsibilities for self and others</li></ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPFST5017 Implement and review the processing of confectionery products	FDFST4036A Implement and review the processing of confectionery products	Updated to meet Standards for Training Packages  Minor changes to Performance Criteria to clarify intent  Unit code updated to reflect AQF level	Equivalent unit

## Links

Companion Volume Implementation Guides are found in VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# Assessment Requirements for FBPFST5017 Implement and review the processing of confectionery products

## Modification History

Release	Comments
Release 1	This version released with the FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

## Performance Evidence

An individual demonstrating competency in this unit must satisfy all of the elements and performance criteria of this unit.

There must be evidence that the individual has effectively implemented and reviewed standards and procedures for the processing of at least two different confectionery products, including:

- selecting, planning and implementing the production processes related to confectionery products
- monitoring the output of each of the processes used
- checking product against market specifications for confectionery
- recognising the organoleptic properties of different types of confectionery
- determining testing protocols for quality assessment
- operating equipment and accessories used in the preparation and manufacture of confectionery products
- completing data collection and documentation required for quality control records
- assessing production procedures against food safety and quality requirements
- identifying and addressing defects during production and of final products.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- the statutory compositional requirements for the different types of confectionery products
- the range of confectionery products, including chocolate and compound chocolate confectionery, liquorice (both straps and allsorts), sugar confectionery types, 'sugar free' confectionery types, gum-based types and panned product types



- the production system for the preparation and manufacture of confectionery products, including production instruction, quality assurance requirements and or/specifications, production specification and or/standards, production equipment, production procedures, cleaning procedures and materials and raw materials
- different formulations for confectionery products
- the functionality of the major ingredients found in confectionery products
- critical factors in the preparation and manufacture of confectionery products
- identification and isolation of defects during production and of final products
- stages of production, critical control points (CCPs) and critical limits according to relevant hazard analysis critical control point (HACCP)-based food safety plan
- packaging procedures
- quality and continuous improvement processes
- sensory analysis techniques
- health and safety hazards in the workplace and controls relating to work processes.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - skills must be demonstrated in a workplace setting or an environment that accurately represents a real confectionery production workplace
- resources, equipment and materials:
  - production process and related equipment, manufacturers' advice and operating procedures
- specifications:
  - tests used to report relevant product/process information and recorded results.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# FBPFST5018 Implement and review the processing of chilled or frozen poultry products

## Modification History

Release	Comments
Release 1	This version released with the FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

## Application

This unit of competency describes the skills and knowledge required to implement, monitor and review the quality, safety and operational procedures used to manufacture chilled or frozen poultry product.

This unit applies to individuals who use knowledge of food science and processes to determine the required food safety, quality and performance of food production equipment.

No occupational licensing or certification requirements apply to this unit at the time of publication. However, legislative and regulatory requirements for food processing exist, so local requirements must be checked. All work must comply with Australian food safety standards and relevant codes of practice.

## Pre-requisite Unit

Nil

## Unit Sector

Food science and technology (FST)

## Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Check the chilled or frozen poultry product preparation and processing areas and	1.1 Identify procedures for pre-operational equipment checks in accordance with workplace policies and procedures and manufacturer's instructions 1.2 Monitor and check regulatory requirements, safe work practices

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
equipment	and safety equipment 1.3 Conduct or supervise pre-operational checks and procedures and report risks, contamination or variations
2. Monitor the production of chilled or frozen poultry products	2.1 Identify and implement product quality and safety procedures for the facility and for each stage of the production process from slaughter to product packaging 2.2 Monitor handling requirements for ingredients to prevent contamination 2.3 Monitor operation of processing equipment to ensure consistency with manufacturer's specifications and regulatory and workplace requirements 2.4 Monitor hygiene and sanitation of relevant processing area for conformance, and the cleaning regime for maintaining a hygienic and safe work area 2.5 Confirm the details of cuts to meet customer requirements 2.6 Monitor the production system and equipment for the preparation and manufacture of the products
3. Implement packaging and chilling of poultry product	3.1 Confirm the details of packaging to meet customer and regulatory requirements 3.2 Monitor chilling requirements to meet food safety standards from processing to retailing 3.3 Apply and monitor chilling processes for food preservation 3.4 Implement and monitor sampling and testing procedures for physical, biochemical and microbiological changes to frozen or chilled product
4. Diagnose, rectify and report problems arising from the preparation and manufacture of chilled poultry products	4.1 Implement sampling and testing to identify defects in the preparation and manufacture of the product 4.2 Identify and implement adjustments to processes and equipment in response to analysed results 4.3 Report problems to designated staff
5. Review production processes	5.1 Review the critical control points (CCPs) and critical limits for product safety 5.2 Review operating procedures for food safety and quality 5.3 Review safe work systems for product processing

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	5.4 Review environmental impacts and energy efficiencies for processing of the products

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"> <li>Interpret food safety guidelines and regulations</li> <li>Interpret product specifications, quality and workplace procedures</li> </ul>
Numeracy	<ul style="list-style-type: none"> <li>Maintain and analyse data resulting from testing of products</li> <li>Determine calibration procedures and schedule for test equipment</li> </ul>
Navigate the world of work	<ul style="list-style-type: none"> <li>Monitor adherence to legal and regulatory standards and responsibilities for self and others</li> </ul>
Interact with others	<ul style="list-style-type: none"> <li>Clarify the purpose and possible actions to be taken as a result of work-related communications</li> </ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPFST5018 Implement and review the processing of chilled or frozen poultry products	FDFST4040A Identify & implement product safety and quality for chilled or frozen poultry product manufacturing	<p>Updated to meet Standards for Training Packages.</p> <p>Minor changes to Performance Criteria to clarify intent.</p> <p>Unit code updated to reflect AQF level.</p>	Equivalent unit

Code and title current version	Code and title previous version	Comments	Equivalence status
		Updated unit title.	

## Links

Companion Volume Implementation Guides are found in VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# Assessment Requirements for FBPFST5018 Implement and review the processing of chilled or frozen poultry products

## Modification History

Release	Comments
Release 1	This version released with the FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

## Performance Evidence

An individual demonstrating competency in this unit must satisfy all of the elements and performance criteria of this unit.

There must be evidence that the individual has implemented and reviewed processing of two chilled or frozen poultry items, including:

- conducting risk assessments of physical hazards for chilled or frozen poultry products
- reviewing critical control points (CCPs) and critical limits in the manufacture of each product
- implementing a hazard analysis critical control point (HACCP) plan for the production of chilled or frozen poultry products
- monitoring production of chilled or frozen poultry products to ensure compliance with workplace and regulatory requirements
- monitoring processing equipment to ensure safe operation
- conducting sampling and testing processes
- proposing solutions to a range of production problems
- completing data collection and documentation required for quality control
- assessing production procedures against food safety and quality requirements
- identifying and addressing defects and non-compliances during production and of final products.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- types of microorganisms that cause food poisoning and spoilage
- chemical, physical and microbiological food safety hazards
- the steps in the slaughter of poultry
- the range of chilled or frozen poultry cuts and products relevant to work role

- processes involved in manufacturing chilled or frozen poultry products
- risks and hazards to the safe and hygienic processing of poultry at each stage of the production process
- sampling and testing procedures to monitor physical, biochemical and microbiological changes to frozen or chilled product
- microbiological criteria in raw poultry products production and microbiological limits, particularly the following significant microbial pathogens: enterohaemorrhagic Escherichia coli, Salmonella, enterotoxin of Staphylococcus aureus and Listeria monocytogenes, Campylobacter sp
- the significance of Salmonella sofia compared to Salmonella typhimurium as food safety hazards
- the techniques involved in chilling and freezing poultry meat
- HACCP principles and ensuring product is fit for human consumption and meets regulatory and quality requirements
- the impact of critical limits in a CCP program for chilled or frozen poultry products
- procedures for raw materials storage, handling and preparation
- safe food handling procedures
- chilling and freezing procedures
- storage requirements for processed product
- the impact of the raw material on product quality and food safety
- packaging technologies and procedures
- sensory analysis techniques
- environmental impacts of the food processing operation
- health and safety hazards in the workplace and controls, and regulatory requirements relating to work processes.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - skills must be demonstrated in a workplace setting or an environment that accurately represents a real workplace
- resources, equipment and materials:
  - production process and related equipment, manufacturers' advice and operating procedures
  - methods and related software systems for collecting data, analysing data and compiling into a report
- specifications:
  - tests used to report relevant product/process information and recorded results.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>



# FBPFST5019 Implement and review the processing of cooked poultry products

## Modification History

Release	Comments
Release 1	This version released with the FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

## Application

This unit of competency describes the skills and knowledge required to implement, monitor and review the quality, safety and operational procedures used to manufacture cooked poultry products.

This unit applies to individuals who use knowledge of food science and processes to determine the required food safety, quality and performance of food production equipment.

No occupational licensing or certification requirements apply to this unit at the time of publication. However, legislative and regulatory requirements for food processing exist, so local requirements must be checked. All work must comply with Australian food safety standards and relevant codes of practice.

## Pre-requisite Unit

Nil

## Unit Sector

Food science and technology (FST)

## Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Check the cooked poultry product preparation and processing areas and	1.1 Identify procedures for pre-operational equipment checks in accordance with workplace policies and procedures and manufacturer's instructions 1.2 Monitor and check regulatory requirements, safe work practices

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
equipment	and safety equipment 1.3 Conduct or supervise pre-operational checks and procedures and report risks, contamination or variations in product quality 1.4 Record physical hazards that may affect products 1.5 Implement methods to reduce risks
2. Monitor the preparation of ingredients, and processing equipment and areas	2.1 Source ingredients by type, quality and safety criteria according to product specifications 2.2 Source types of chicken meat, by-product, stock, additive, binder and spices according to the formulation specifications and regulatory requirements 2.3 Monitor handling of ingredients to prevent contamination and ensure conformance to quality and safety standards 2.4 Monitor hygiene and sanitation of relevant processing area for compliance, and the cleaning regime for maintaining a hygienic and safe work area 2.5 Monitor the production system and operation of equipment for the preparation and manufacture of cooked poultry products
3. Monitor the production of cooked poultry and further processed products	3.1 Monitor time, temperature and humidity requirements for cooking and packaging 3.2 Monitor consistency, appearance, texture and other requirements for the product 3.3 Monitor production to meet product, processing, storage and regulatory requirements 3.4 Implement and monitor product sampling, testing and sensory analysis regime for compliance 3.5 Implement procedures for rejection, reprocessing and recall of products that do not meet specifications or hygiene and sanitation requirements, and review against regulatory requirements and industry guidelines 3.6 Monitor hygiene and sanitation of relevant processing area for compliance
4. Overview the implementation of the HACCP plan for the production of cooked	4.1 Implement critical control points (CCPs) and critical limits for prevention and control of bacterial contamination 4.2 Implement monitoring processes for critical limits for CCPs

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
poultry products	<p>4.3 Carry out validation requirements for critical limits of hazard analysis and critical control point (HACCP) programs</p> <p>4.4 Implement documented procedures for corrective actions when critical limits at a CCP are compromised, to ensure that affected product is suitably handled</p> <p>4.5 Maintain documents and records required for the system</p>
5. Review production processes	<p>5.1 Conduct product sampling and testing and sensory analysis, and analyse results</p> <p>5.2 Review and revise product formulations and operating procedures to improve practice and quality of product</p> <p>5.3 Review and revise safe work systems</p> <p>5.4 Review and revise environmental impacts and energy efficiencies</p>

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"> <li>Interpret food safety guidelines and regulations</li> <li>Interpret product specifications, quality and workplace procedures</li> </ul>
Numeracy	<ul style="list-style-type: none"> <li>Maintain and analyse data resulting from testing of products</li> <li>Determine calibration procedures and schedule for test equipment</li> </ul>
Navigate the world of work	<ul style="list-style-type: none"> <li>Monitor adherence to legal and regulatory standards and responsibilities for self and others</li> </ul>
Interact with others	<ul style="list-style-type: none"> <li>Clarify the purpose and possible actions to be taken as a result of work-related communications</li> </ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPFST5019 Implement and review the processing of cooked poultry products	FDFST4041A Identify and implement product safety and quality for cooked poultry product manufacturing	Updated to meet Standards for Training Packages  Minor changes to Performance Criteria to clarify intent  Unit code updated to reflect AQF level  Updated unit title	Equivalent unit

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# Assessment Requirements for FBPFST5019 Implement and review the processing of cooked poultry products

## Modification History

Release	Comments
Release 1	This version released with the FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

## Performance Evidence

An individual demonstrating competency in this unit must satisfy all of the elements and performance criteria of this unit.

There must be evidence that the individual has implemented and reviewed the processing of at least two different cooked products, including:

- applying and monitoring procedures to ensure each product is fit for human consumption and meets regulatory, food safety and quality requirements
- overseeing the implementation of the critical control point (CCP) plan for the production of cooked poultry products
- carrying out product sampling and testing according to the hazard analysis critical control point (HACCP) plan and operational procedures
- taking action to improve own work practice as a result of self-evaluation, feedback from others, or changed work practices, regulations or technology
- using technology to access information, prepare reports, and to access and prepare relevant data
- assessing production procedures against food safety and quality requirements
- identifying and addressing defects during production and of final products.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- steps in the cooking of poultry
- the range of types of chilled cooked poultry products and their processing stages
- types of microorganisms and bacteria causing food poisoning
- food poisoning and food spoilage (shelf-life) effects of bacterial contamination
- sources of bacterial contamination for both ready-to-heat and ready-to-eat chicken products

- microbial hazards for ‘par cooked’ further processed poultry products
- growth characteristics and requirements of relevant bacteria species
- microbiological criteria in cooked poultry products production and microbiological limits, particularly the following significant microbial pathogens: enterohaemorrhagic Escherichia coli, Salmonella, enterotoxin of Staphylococcus aureus and Listeria monocytogenes
- chemical hazards that may affect cooked poultry products
- effects or impact of physical hazards on cooked poultry products
- procedures for raw materials storage, handling and preparation
- safe food handling procedures
- the impact of the raw material on product quality and food safety
- physical food safety hazards
- sanitation and hygiene procedures
- HACCP principles and critical limits in a HACCP program for cooked poultry products
- identification of CCPs and critical limits
- water and energy use and recycling in processing
- packaging technologies and procedures
- sensory analysis techniques
- food sampling and testing techniques
- storage requirements for processed product
- regulatory requirements associated with the production of cooked poultry products
- environmental impacts of the food processing operation
- health and safety hazards in the workplace, and controls relating to work processes.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - skills must be demonstrated in a workplace setting or an environment that accurately represents a real workplace
- resources, equipment and materials:
  - production process and related equipment, manufacturers’ advice and operating procedures
  - methods and related software systems for collecting data, analysing data and compiling into a report
- specifications:
  - laboratory facilities or reports to assess food microbiology and chemistry.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volume Implementation Guides are found in VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# FBPFST5020 Implement and review the processing of egg based products

## Modification History

Release	Comments
Release 1	This version released with the FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

## Application

This unit of competency describes the skills and knowledge required to implement, monitor and review safety and quality procedures for processing egg based products.

This unit applies to individuals who use knowledge of food science and processes to determine the required food safety, quality and performance of food production equipment.

No occupational licensing or certification requirements apply to this unit at the time of publication. However, legislative and regulatory requirements for food processing exist, so local requirements must be checked. All work must comply with Australian food safety standards and relevant codes of practice.

## Pre-requisite Unit

Nil

## Unit Sector

Food science and technology (FST)

## Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Monitor the preparation of ingredients, and the processing equipment and areas	1.1 Identify ingredients by type, quality and safety according to product specifications 1.2 Source and prepare ingredients according to the formulation specifications and regulatory requirements



Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	<p>1.3 Monitor handling of ingredients to prevent food safety hazards and ensure product quality and safety</p> <p>1.4 Identify relevant processing equipment and check operating procedures for consistency with manufacturer's specifications and regulatory and workplace requirements</p> <p>1.5 Conduct or supervise pre-operational checks and procedures and report risks, contamination or variations</p> <p>1.6 Identify a cleaning regime and monitor processing area for maintaining a hygienic and safe work area</p>
2. Monitor the production of egg based food products to meet quality standards	<p>2.1 Identify critical factors in the preparation and production of egg based food products</p> <p>2.2 Establish resource requirements for the preparation and production of the products</p> <p>2.3 Implement a production schedule to ensure all resources and requirements are available and meet workplace requirements</p> <p>2.4 Set and verify the production system to meet the required operating specifications before and during production</p> <p>2.5 Monitor the production system, including cooking or steaming, to meet regulatory and production requirements</p> <p>2.6 Carry out pasteurisation of egg product to comply with Food Standards Code</p> <p>2.7 Implement chilling or freezing technologies to set and store product</p>
3. Diagnose, rectify and report problems arising from the preparation and production of egg based food products	<p>3.1 Confirm procedures and systems to identify potential problems and defects in the preparation and production of the products</p> <p>3.2 Apply adjustments to the processes and equipment in response to identified defects</p> <p>3.3 Report problems to designated person</p>
4. Review production processes	<p>4.1 Review the critical control points (CCPs) and critical limits for product safety</p> <p>4.2 Conduct and analyse sensory analysis of the products</p> <p>4.3 Undertake food tests to determine if food quality and safety critical limits are complied with</p> <p>4.4 Review operating procedures for the safety and quality of products</p>

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	4.5 Review safe work systems 4.6 Review environmental impacts and energy efficiencies 4.7 Report problems to designated staff

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"> <li>Interpret food safety guidelines and regulations</li> <li>Interpret product specifications, quality and workplace procedures</li> </ul>
Numeracy	<ul style="list-style-type: none"> <li>Maintain and analyse data resulting from testing of products</li> <li>Determine calibration procedures and schedule for test equipment</li> </ul>
Navigate the world of work	<ul style="list-style-type: none"> <li>Monitor adherence to legal and regulatory standards and responsibilities for self and others</li> </ul>
Interact with others	<ul style="list-style-type: none"> <li>Clarify the purpose and possible actions to be taken as a result of work-related communications</li> </ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPFST5020 Implement and review the processing of egg based products	FDFST4042A Identify and implement product safety and quality for egg based product manufacturing	Updated to meet Standards for Training Packages  Minor changes to Performance Criteria to clarify intent	Equivalent unit

		Unit code updated to reflect AQF level	
		Updated unit title	

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# Assessment Requirements for FBPFST5020 Implement and review the processing of egg based products

## Modification History

Release	Comments
Release 1	This version released with the FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

## Performance Evidence

An individual demonstrating competency in this unit must satisfy all of the elements and performance criteria of this unit.

There must be evidence that the individual has implemented and reviewed the processing of at least two different egg based products, including:

- testing an avian egg for quality and shelf life
- selecting and handling ingredients according to food safety requirements
- recognising common spoilage organisms associated with avian eggs
- reviewing critical control points (CCPs) and critical limits for each product
- carrying out tests for product safety and quality
- diagnosing, rectifying and reporting problems arising from the preparation and production of egg based food products
- monitoring processing equipment to ensure safe operation
- completing data collection and documentation required for quality control
- assessing production procedures against food safety and quality requirements.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- processes used in the preparation and production of egg based food products
- relationship between the processes used in the processing of egg based food products
- operation of equipment and accessories used in the preparation and manufacturing processes of egg based food products
- recognition of spoilage organisms in eggs
- principles of handling and storing eggs
- anatomy and physiology of an avian egg
- pasteurisation processes

- production systems for the preparation and production of egg based food products
- manufacturing processes in regard to frozen and dried egg products
- formulation of egg based food products
- role of major ingredients found in egg based food products
- stages of production, CCPs and critical limits
- quality and continuous improvement processes
- sensory analysis techniques
- food sampling and testing techniques
- regulatory requirements associated with the manufacturing of egg based products
- environmental impacts of the food processing operation
- health and safety hazards in the workplace and controls relating to work processes.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - skills must be demonstrated in a workplace setting or an environment that accurately represents a real food production workplace
- resources, equipment and materials:
  - production process and related equipment, manufacturers' advice and operating procedures
  - methods and related software systems for collecting data, analysing data and compiling into a report
- specifications:
  - tests used to report relevant product/process information and recorded results.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# FBPFST5021 Implement and review the processing of fruit, vegetables, nuts, herbs and spices

## Modification History

Release	Comments
Release 1	This version released with the FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

## Application

This unit of competency describes the skills and knowledge required to implement and review the quality and safe processing of fruit, vegetables, nuts, herbs and spices.

This unit applies to individuals who use knowledge of food science and processes to determine the required food safety, quality and performance of food production equipment. They are responsible for maintaining product safety, quality and efficiency in food production.

No occupational licensing or certification requirements apply to this unit at the time of publication. However, legislative and regulatory requirements for food processing exist, so local requirements must be checked. All work must comply with Australian food safety standards and relevant codes of practice.

## Pre-requisite Unit

Nil

## Unit Sector

Food science and technology (FST)

## Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Review preparation of fruit, vegetables, nuts, herbs and spices for	1.1 Identify processes for preparing fruit, vegetables, nuts, herbs and spices 1.2 Identify the steps involved in the processing of a range of fruit,

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
processing	vegetables, nuts, herbs and spices 1.3 Document preparation processes
2. Monitor processing of fruit, vegetables, nuts, herbs and spices product samples for testing	2.1 Identify the processing techniques to produce required range of product samples 2.2 Evaluate permissible additives and preservatives in the production process for suitability 2.3 Process product and monitor stages for compliance 2.4 Confirm that products are produced in a safe working environment using appropriate hygiene and sanitation techniques
3. Investigate the packaging alternatives for fruit, vegetables, nuts, herbs and spices products	3.1 Identify packaging requirements for products and evaluate for suitability and compliance with regulatory requirements 3.2 Monitor the packaging and storage processes of the products 3.3 Make adjustments to packaging and storage procedures and design where required
4. Assess the quality and shelf life of fruit, vegetables, nuts, herbs and spices products	4.1 Use testing techniques to assess the safety and organoleptic qualities of the products 4.2 Identify and assess common hazards at critical control points (CCPs) for the production of products 4.3 Comply with critical limits for all steps of processing including shelf life and storage
5. Review production processes	5.1 Review the CCPs and critical limits for product safety 5.2 Review operating procedures for food safety and quality 5.3 Review the production plan

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"> <li>Interpret food safety guidelines and regulations</li> </ul>

Skill	Description
	<ul style="list-style-type: none"> <li>Interpret product quality and workplace procedures</li> </ul>
Numeracy	<ul style="list-style-type: none"> <li>Maintain and analyse data resulting from product testing</li> <li>Determine calibration procedures and schedule for test equipment</li> </ul>
Navigate the world of work	<ul style="list-style-type: none"> <li>Monitor adherence to legal and regulatory standards and responsibilities for self and others</li> </ul>
Get the work done	<ul style="list-style-type: none"> <li>Monitor outcomes of decisions and identify key product quality system concepts and principles that may be adaptable to future situations</li> <li>Use digital tools to monitor processes and access and organise complex data</li> </ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPFST5021 Implement and review the processing of fruit, vegetables, nuts, herbs and spices	FDFST4050A Identify and implement product safety and quality for processing of fruit, vegetables & other produce	<p>Updated to meet Standards for Training Packages</p> <p>Minor changes to Performance Criteria to clarify intent</p> <p>Unit code updated to reflect AQF level</p> <p>Updated unit title</p>	Equivalent unit

## Links

Companion Volume Implementation Guides are found in VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>



# Assessment Requirements for FBPFST5021 Implement and review the processing of fruit, vegetables, nuts, herbs and spices

## Modification History

Release	Comments
Release 1	This version released with the FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

## Performance Evidence

An individual demonstrating competency in this unit must satisfy all of the elements and performance criteria of this unit.

There must be evidence that the individual has implemented and reviewed the quality and safe processing of at least two different fruit, vegetable, nut, herb or spice products, including:

- overseeing commercial processing techniques for each product
- reviewing the processing of each product to assess the food safety and quality.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- the physiology of fruits, vegetables, nuts, herbs and spices
- the range of available fruits, vegetables, nuts, herbs and spices used in the food industry
- the physiological changes that can occur to fruit, vegetables, nuts, herbs and spices during harvest, processing, transport and storage
- additives and preservatives used in the production process
- the various methods of storage that assist to prolong the shelf-life of fruits, vegetables, herbs and spices
- methods of cleaning and storage of fruit, vegetable, nut, herb and spice products for sale as fresh produce or for further processing
- manufacturing processes for pickled, canned, dried, and concentrated fruit, frozen and canned vegetables, herb and spice products
- processes and inputs for jam and sauce production
- testing procedures for raw materials through to manufactured product
- stages of production, critical control points (CCPs) and critical limits
- packaging procedures for fruit, nuts, vegetables, herbs and spices
- quality and continuous improvement processes for food processing

- regulatory requirements associated with processing fruit, vegetables, nuts, herbs and spices
- health and safety hazards in the workplace and controls relating to work processes.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - skills must be demonstrated in a workplace setting or an environment that accurately represents a real food processing workplace
- resources, equipment and materials:
  - production process and related equipment, manufacturers' advice and operating procedures
- specifications:
  - tests used to report relevant product/process information and recorded results.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# FBPFST5022 Implement and review the processing of fish and seafood products

## Modification History

Release	Comments
Release 1	This version released with the FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

## Application

This unit of competency describes the skills and knowledge required to implement, monitor and review product safety and quality procedures for processing fish and seafood products.

This unit applies to individuals who use knowledge of food science and processes to determine the required food safety, quality and performance of food production equipment.

No occupational licensing or certification requirements apply to this unit at the time of publication. However, legislative and regulatory requirements for food processing exist, so local requirements must be checked. All work must comply with Australian food safety standards and relevant codes of practice.

## Pre-requisite Unit

Nil

## Unit Sector

Food science and technology (FST)

## Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Identify harvesting and storage practices for fish and seafood	1.1 Identify fish or seafood to be harvested 1.2 Identify techniques to harvest fish and seafood 1.3 Select appropriate storage procedures to prevent spoilage

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	1.4 Identify spoilage organisms associated with fish and seafood
2. Select the processing techniques and technology used to produce various fish and seafood products	2.1 Identify the manufacturing process to produce a pickled, cured, frozen or canned fish and seafood product 2.2 Perform sensory evaluation of fish and seafood 2.3 Assess product suitability for use in the manufacturing process
3. Monitor commercial techniques to manufacture fish and seafood product samples	3.1 Identify a manufacturing process to produce value-added products 3.2 Construct a process chart for a selected fish or seafood product 3.3 Set up the production system to the required operating specifications and verify production to specification 3.4 Test product samples to ensure quality outcome
4. Review production processes	4.1 Review the critical control points (CCPs) and critical limits for product safety 4.2 Review operating procedures for food safety and quality 4.3 Review the work health and safety plan for processing of food products 4.4 Review environmental impacts and associated costs for processing of food products

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"> <li>Interpret food safety guidelines and regulations</li> <li>Interpret product specifications, quality and workplace procedures</li> </ul>
Numeracy	<ul style="list-style-type: none"> <li>Maintain and analyse data resulting from testing of products</li> <li>Determine calibration procedures and schedule for test equipment</li> </ul>
Navigate the world of work	<ul style="list-style-type: none"> <li>Monitor adherence to legal and regulatory standards and responsibilities for self and others</li> </ul>

Skill	Description
Interact with others	<ul style="list-style-type: none"><li>Clarify the purpose and possible actions to be taken as a result of work-related communications</li></ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPFST5022 Implement and review the processing of fish and seafood products	FDFST4051A Identify and implement product safety and quality processes for fish and seafood products	Updated to meet Standards for Training Packages  Minor changes to Performance Criteria to clarify intent  Unit code updated to reflect AQF level  Updated unit title	Equivalent unit

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# Assessment Requirements for FBPFST5022 Implement and review the processing of fish and seafood products

## Modification History

Release	Comments
Release 1	This version released with the FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

## Performance Evidence

An individual demonstrating competency in this unit must satisfy all of the elements and performance criteria of this unit.

There must be evidence that the individual has implemented and reviewed the processing of two different fish and/or seafood products, including:

- classifying fish and seafood classes according to their phylum/species
- selecting appropriate storage procedures for fish and seafood products to prevent spoilage
- performing sensory evaluation of fish and/or seafood
- assessing the suitability of the fish and/or seafood for use in the manufacturing process
- setting up the manufacturing processes used to produce value-added fish and/or seafood products
- monitoring compliance of processing procedures with food safety and quality requirements
- interpreting critical control points (CCPs) and critical limits
- diagnosing, rectifying and/or reporting problems arising from the preparation and production of fish and/or seafood
- carrying out tests for product safety and quality.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- commonly processed fish and seafood classes according to their phylum/species
- species of fish and seafood that are generally used in food industry/retail
- harvesting techniques
- storage procedures for fresh and cooked fish and seafood
- spoilage organisms associated with fish and seafood
- sensory evaluation of fish and seafood

- manufacturing processes used to produce pickled, cured, frozen and canned fish and seafood
- manufacturing processes used to produce value-added fish and seafood product, including fish/seafood nuggets, sushi and sashimi
- testing procedures for raw materials through to manufactured product
- stages of production, CCPs and critical limits
- quality and continuous improvement processes
- regulatory requirements associated with processing fish and seafood
- environmental impacts of the seafood processing operation
- health and safety hazards in the workplace and controls relating to work processes.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - skills must be demonstrated in a workplace setting or an environment that accurately represents a real workplace
- resources, equipment and materials:
  - production process and related equipment, manufacturers' advice and operating procedures
  - suitable fish and seafood and production facilities to produce product samples
- specifications:
  - tests used to report relevant product/process information and recorded results.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# FBPFST5023 Implement and review the production of milk fat products

## Modification History

Release	Comments
Release 1	This version released with the FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

## Application

This unit of competency describes the skills and knowledge required to implement, monitor and review standards and procedures for the manufacture of milk fat products, to ensure quality and safety standards are met.

This unit applies to individuals who use knowledge of food science and processes and are responsible for maintaining product safety, quality and efficiency in the dairy processing sector.

No occupational licensing or certification requirements apply to this unit at the time of publication. However, legislative and regulatory requirements for food processing exist, so local requirements must be checked. All work must comply with Australian food safety standards and relevant codes of practice.

## Pre-requisite Unit

Nil

## Unit Sector

Food science and technology (FST)

## Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Manufacture milk fat products	1.1 Interpret the specifications for the end product 1.2 Document data requirements and collection points for food safety,



Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	quality and production standards from procedures 1.3 Apply or develop procedures to deal with non-conformance in relation to process and the final product 1.4 Ensure a safe working environment for the manufacture of product samples 1.5 Communicate safety and quality requirements to team 1.6 Manufacture a range of sample milk fat products
2. Monitor the manufacture of milk fat products to meet quality standards	2.1 Select appropriate production system and determine the sequence of activity to prepare the system for operation 2.2 Establish resource requirements for the preparation and manufacture of milk fat products 2.3 Implement or develop a production schedule to ensure all resources and requirements are available and meet company requirements 2.4 Set production system to operating specifications before and during production 2.5 Implement and monitor process controls for the preparation and manufacture of the products
3. Diagnose, rectify and report problems arising from the preparation and manufacture of manufactured milk products	3.1 Conduct sensory analysis and product testing to identify defects 3.2 Apply systems to identify defects in the preparation and manufacture of the products 3.3 Implement adjustments to processes and equipment in response to analysed results 3.4 Report problems to designated person
4. Review production processes	4.1 Review the critical control points (CCPs) and critical limits for product safety 4.2 Review operating procedures to ensure safe work, food safety and quality 4.3 Review environmental impacts and associated costs of production 4.4 Update production processes where necessary

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"> <li>Interpret food safety guidelines and regulations</li> <li>Interpret product quality and workplace procedures</li> </ul>
Numeracy	<ul style="list-style-type: none"> <li>Maintain and analyse data resulting from product testing</li> <li>Determine calibration procedures and schedule for test equipment</li> </ul>
Navigate the world of work	<ul style="list-style-type: none"> <li>Monitor adherence to legal and regulatory standards and responsibilities for self and others</li> </ul>
Get the work done	<ul style="list-style-type: none"> <li>Take responsibility for high-impact decisions in product quality systems</li> <li>Monitor outcomes of decisions and identify key product quality system concepts and principles that may be adaptable to future situations</li> </ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPFST5023 Implement and review the production of milk fat products	FDFST5023A Implement and review the production of milk fat products	<p>Updated to meet Standards for Training Packages</p> <p>Minor changes to Performance Criteria to clarify intent</p>	Equivalent unit

## Links

Companion Volume Implementation Guides are found in VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# Assessment Requirements for FBPFST5023 Implement and review the production of milk fat products

## Modification History

Release	Comments
Release 1	This version released with the FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

## Performance Evidence

An individual demonstrating competency in this unit must satisfy all of the elements and performance criteria of this unit.

There must be evidence that the individual has effectively implemented and reviewed standards in the production of at least two milk fat products, including:

- documenting the steps in production for each product
- establishing critical control points (CCPs) and critical limits for each step in production
- determining a production schedule for each product
- conducting sensory evaluation and product testing
- overviewing the implementation of the CCP plan
- conducting product sampling and testing according to the CCP plan and operational procedures
- identifying and addressing non-compliances
- providing relevant information to work colleagues to facilitate understanding of, and compliance with, the Australian Standards and associated regulations.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- the impact of processing on milk
- compositional requirements for a range of milk fat products
- manufacturing processes, including materials and equipment, involved in producing cream, butter, condensed milk, milk powder and milk with amendments or additives
- purpose of each process, and relationship between the processes, used in the preparation and manufacture of milk fat products
- principles of operation of equipment and accessories used in the preparation and manufacture of milk fat products

- output of each of the processes used in the preparation and manufacture of milk fat products
- critical factors in the preparation and manufacture of milk fat products
- potential product defects and their causes, which may arise in the preparation and manufacture of milk fat products
- the hazards associated with raw milk
- the various spoilage organisms associated with milk
- food safety standards that apply to milk and milk products
- chemical and physical hazards that may affect milk.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - skills must be demonstrated in a workplace setting or an environment that accurately represents a real workplace
- resources, equipment and materials:
  - production process and related equipment, manufacturers' advice and operating procedures
- specifications:
  - tests used to report relevant product/process information and recorded results.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# FBPFST5024 Implement and review the production of fermented dairy products and dairy desserts

## Modification History

Release	Comments
Release 1	This version released with the FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

## Application

This unit of competency describes the skills and knowledge required to implement, monitor and review the standards and procedures for manufacture of fermented dairy products and dairy desserts.

This unit applies to individuals who are responsible for maintaining product safety, quality and efficiency in the dairy processing sector and who exercise autonomy in undertaking complex work related to product design, quality assurance and production management.

No occupational licensing or certification requirements apply to this unit at the time of publication. However, legislative and regulatory requirements for food processing exist, so local requirements must be checked. All work must comply with Australian food safety standards and relevant codes of practice.

## Pre-requisite Unit

Nil

## Unit Sector

Food science and technology (FST)

## Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Monitor the production of fermented dairy products and dairy	1.1 Select appropriate production system and implement preparation for operation 1.2 Establish ingredients and resource requirements for the preparation

<b>Elements</b>	<b>Performance Criteria</b>
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
desserts to meet quality standards	<p>and manufacture of the products</p> <p>1.3 Implement a production schedule, ensuring all resources and requirements are available and meet company requirements</p> <p>1.4 Interpret data requirements for food safety, quality and production standards</p> <p>1.5 Establish data collection points consistent with equipment capabilities and data requirements</p> <p>1.6 Communicate production and quality requirements to team</p> <p>1.7 Implement procedures to deal with non-conformance in relation to process and the final product</p> <p>1.8 Set production system to operating specifications before and during production</p> <p>1.9 Monitor process controls for the manufacture of the products</p>
2. Diagnose, rectify and report problems arising from the preparation and manufacture of fermented milk products and dairy desserts	<p>2.1 Determine sensory evaluation and product testing protocols used to identify defects and non-compliant product</p> <p>2.2 Implement a system to identify defects in the preparation and manufacture of the products</p> <p>2.3 Implement a sampling plan to produce samples for analysis</p> <p>2.4 Conduct sensory analysis of products</p> <p>2.5 Implement adjustments to processes and equipment in response to test results</p> <p>2.6 Report problems to designated person</p>
3. Review production processes for fermented milk products and dairy desserts	<p>3.1 Review the critical control points (CCPs) and critical limits for product safety</p> <p>3.2 Review operating procedures for food safety and quality</p> <p>3.3 Review safe work systems for processing of products</p> <p>3.4 Review the environmental impacts and energy efficiencies for processing the product</p>

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"><li>• Interpret food safety guidelines and regulations</li><li>• Interpret product quality and workplace procedures</li></ul>
Oral communication	<ul style="list-style-type: none"><li>• Use industry standard terminology</li></ul>
Numeracy	<ul style="list-style-type: none"><li>• Maintain and analyse data resulting from testing of products</li><li>• Determine calibration procedures and schedule for test equipment</li></ul>
Get the work done	<ul style="list-style-type: none"><li>• Address problems as they arise</li><li>• Use technology to access and analyse information, prepare reports, and to access and prepare relevant data</li></ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPFST5024 Implement and review the production of fermented dairy products and dairy desserts	FDFST5024A Implement and review the production of fermented dairy products and dairy desserts	Updated to meet Standards for Training Packages  Minor changes to Performance Criteria to clarify intent	Equivalent unit

## Links

Companion Volume Implementation Guides are found in VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# Assessment Requirements for FBPFST5024 Implement and review the production of fermented dairy products and dairy desserts

## Modification History

Release	Comments
Release 1	This version released with the FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

## Performance Evidence

An individual demonstrating competency in this unit must satisfy all of the elements and performance criteria of this unit.

There must be evidence that the individual has effectively implemented and reviewed the manufacture of at least two fermented dairy products or dairy desserts, including:

- selecting the formulation for each product
- implementing the production schedule and ensuring all resources and requirements are available and meet workplace requirements
- setting the production system to operating specifications before and during production
- identifying potential product defects and their causes
- implementing adjustments to process, or equipment, in response to system review
- carrying out product sampling and testing according to the critical control point (CCP)-based plan and operational procedures
- providing relevant information to work colleagues to facilitate understanding of, and compliance with, food safety standards and associated regulations.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- types of fermented dairy products and dairy desserts
- statutory compositional requirements for the different types of fermented dairy and dairy desserts
- the role of major ingredients in fermented dairy milk products and dairy desserts
- processes used in the preparation and manufacture of fermented dairy products and dairy desserts



- sequence of processes used in the preparation and manufacture of fermented dairy products and dairy desserts
- the output of each of the processes used in the preparation and manufacture of fermented dairy products and dairy desserts
- the production systems used for the preparation and manufacture of each fermented dairy and dairy dessert product, and the preferred sequence of activity to prepare the system for operation
- the critical factors in the preparation and manufacture of fermented dairy products and dairy desserts
- the resource requirements for the preparation and manufacture of fermented dairy products
- principles of operation of equipment and accessories used in the preparation and manufacture of fermented dairy products and dairy desserts
- potential product defects and their causes, which may arise in the preparation and manufacture of fermented dairy products and dairy desserts
- the fermentation process as applied to dairy products
- formulation of fermented dairy products
- testing procedures for raw materials through to manufactured product
- sensory analysis techniques for fermented dairy products and dairy desserts
- chemical and physical hazards that may affect milk-based products
- sanitation and hygiene procedures
- CCP principles and critical limits in a CCP program
- regulatory requirements associated with fermented dairy products and dairy desserts.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - skills must be demonstrated in a workplace setting or an environment that accurately represents a real workplace
- resources, equipment and materials:
  - production process and related equipment, manufacturers' advice and operating procedures
- specifications:
  - tests used to report relevant product/process information and recorded results
- relationships:
  - team members.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# FBPFST5025 Implement and review the production of concentrated and dried dairy products

## Modification History

Release	Comments
Release 1	This version released with the FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

## Application

This unit of competency describes the skills and knowledge required to monitor and review production standards and procedures for manufacture of concentrated and dried dairy products. The individual is required to use knowledge of food science and processes to determine the required food safety, quality and performance required from food production equipment.

This unit applies to individuals who are responsible for maintaining product safety, quality and efficiency in the dairy processing sector and who exercise autonomy in undertaking complex work related to product design, quality assurance and production management.

No occupational licensing or certification requirements apply to this unit at the time of publication. However, legislative and regulatory requirements for food processing exist, so local requirements must be checked. All work must comply with Australian food safety standards and relevant codes of practice.

## Pre-requisite Unit

Nil

## Unit Sector

Food science and technology (FST)

## Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare for the	1.1 Identify the statutory compositional requirements for the different

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
manufacture of concentrated and dried milk and related products	<p>types of concentrated and dried milk and related products</p> <p>1.2 Select the required formulation of concentrated and dried milk and related products</p> <p>1.3 Select the appropriate production system and the sequence of activity to prepare the system for operation</p> <p>1.4 Prepare equipment and access safe operating procedures for its operation</p> <p>1.5 Communicate production, quality and safety requirements to team</p>
2. Monitor the manufacture of concentrated and dried milk and related products to ensure quality standards are met	<p>2.1 Implement a production schedule, ensuring all resources and requirements are available and meet company requirements</p> <p>2.2 Set the production system to operating specifications before and during production</p> <p>2.3 Interpret data requirements for food safety, quality and production standards</p> <p>2.4 Establish data collection points consistent with equipment capabilities and data requirements</p> <p>2.5 Apply or develop procedures to deal with non-conformance in relation to process and the final product</p> <p>2.6 Implement and monitor concentration and drying procedures</p> <p>2.7 Implement and monitor process controls for the preparation and manufacture of the products</p>
3. Diagnose, rectify and report problems arising from the preparation and manufacture of concentrated and dried milk and related products	<p>3.1 Establish sensory evaluation and product testing protocols to identify defects</p> <p>3.2 Implement a system to identify defects in the preparation and manufacture of the products</p> <p>3.3 Implement a sampling plan for concentrated and dried dairy products</p> <p>3.4 Conduct sensory analysis and analyse results</p> <p>3.5 Identify and apply adjustments to processes and equipment in response to analysed results</p> <p>3.6 Report problems to designated person</p>
4. Review production processes	<p>4.1 Review the critical control points (CCPs) and critical limits for product safety</p>

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	<p>4.2 Review operating procedures for food safety and quality</p> <p>4.3 Review safe work systems for processing of products</p> <p>4.4 Review the environmental impacts and energy efficiencies for processing the products</p>

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"> <li>Interpret food safety guidelines and regulations</li> <li>Interpret product quality and workplace procedures</li> </ul>
Numeracy	<ul style="list-style-type: none"> <li>Maintain and analyse data resulting from testing of products</li> <li>Determine calibration procedures and schedule for test equipment</li> </ul>
Navigate the world of work	<ul style="list-style-type: none"> <li>Monitor adherence to legal and regulatory standards and responsibilities for self and others</li> <li>Use technology to access information, prepare reports, and to access and prepare relevant data</li> </ul>
Interact with others	<ul style="list-style-type: none"> <li>Clarify the purpose and possible actions to be taken as a result of work-related communications</li> <li>Use industry standard terminology</li> </ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPFST5025 Implement and review the production of concentrated and dried dairy	FDFST5025A Implement and review the production of concentrated and dried dairy products	<p>Updated to meet Standards for Training Packages</p> <p>Minor changes to Performance Criteria to</p>	Equivalent unit

<b>Code and title current version</b>	<b>Code and title previous version</b>	<b>Comments</b>	<b>Equivalence status</b>
products		clarify intent	

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# Assessment Requirements for FBPFST5025 Implement and review the production of concentrated and dried dairy products

## Modification History

Release	Comments
Release 1	This version released with the FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

## Performance Evidence

An individual demonstrating competency in this unit must satisfy all of the elements and performance criteria of this unit.

There must be evidence that the individual has implemented and reviewed the manufacture of at least one concentrated and dried dairy product, including:

- selecting the formulation for the product
- implementing the production process, ensuring all resources and requirements are available and meet workplace requirements
- setting up the processing system to operating specifications before and during production
- identifying potential product defects and non-conformances and their causes, which may arise in the preparation and manufacture of the concentrated and dried dairy product
- diagnosing and addressing faults and non-compliances
- making adjustments to process/equipment in response to non-conformances
- carrying out product sampling and testing according to the critical control point (CCP)-based plan and operational procedures
- providing relevant information to work colleagues to facilitate understanding of, and compliance with, the Australian Standards and associated regulations.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- different types and formulation of concentrated and/or dried milk and related products
- production systems used for the preparation and manufacture of concentrated and/or dried milk and related products
- the output of each of the processes used in the preparation and manufacture of concentrated and/or dried milk and related products
- the major ingredients found in concentrated and/or dried milk and related products

- preparation and manufacture of concentrated and/or dried milk and related products, including mix standardisation/calculation, mixing/blending, homogenisation, heat treatment, packaging, and storage and distribution
- the production system for the preparation and manufacture of concentrated and/or dried milk and related products, including production instruction, quality assurance requirements and specifications, production specification and standards, production equipment, production procedures, cleaning procedures and materials and raw materials
- critical factors in the preparation and manufacture of concentrated and/or dried milk and related products
- potential product defects and their causes, which may arise in the preparation and manufacture of concentrated and/or dried milk and related dairy products
- specific domestic and export market specifications for concentrated and/or dried milk and related products
- sensory analysis techniques
- chemical and physical hazards that may affect milk-based products
- sampling and testing techniques and how to interpret results
- procedures for milk product storage, handling and preparation
- sanitation and hygiene procedures
- identification of CCPs and critical limits
- regulatory requirements associated with concentrated and dried dairy products.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - skills must be demonstrated in a workplace setting or an environment that accurately represents a real dairy processing workplace
- resources, equipment and materials:
  - production process and related equipment, manufacturers' advice and operating procedures
- specifications:
  - tests used to report relevant product/process information and recorded results
- relationships:
  - team members.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>



# FBPFST5026 Implement and review the production of ice creams and frozen dairy products

## Modification History

Release	Comments
Release 1	This version released with the FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

## Application

This unit of competency describes the skills and knowledge required to monitor and review production standards and procedures for ice creams and frozen dairy products. The individual is required to use knowledge of food science and processes to determine the required food safety, quality and performance of food production equipment.

This unit applies to individuals who are responsible for maintaining product safety, quality and efficiency in the dairy processing sector, and who exercise autonomy in undertaking complex work related to product design, quality assurance and production management.

No occupational licensing or certification requirements apply to this unit at the time of publication. However, legislative and regulatory requirements for food processing exist, so local requirements must be checked. All work must comply with Australian food safety standards and relevant codes of practice.

## Pre-requisite Unit

Nil

## Unit Sector

Food science and technology (FST)

## Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare for the manufacture of ice	1.1 Identify the statutory compositional requirements for ice creams and frozen dairy products

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
creams and frozen dairy products	<p>1.2 Select the required formulation of ice creams and frozen dairy products</p> <p>1.3 Select the appropriate production system and the sequence of activity to prepare the system for operation</p> <p>1.4 Prepare equipment and access safe operating procedures for its operation</p>
2. Monitor the preparation and manufacture of ice creams and frozen dairy products to ensure quality standards are met	<p>2.1 Establish resource requirements for the preparation and production of ice creams and frozen dairy products that include confectionery, flavourings and fruits</p> <p>2.2 Implement a production schedule to ensure all resources and requirements are available and meet company requirements</p> <p>2.3 Set the production system to operating specifications before and during production</p> <p>2.4 Test chilling and refrigeration procedures</p> <p>2.5 Determine data requirements for food safety, quality and production standards</p> <p>2.6 Establish data collection points consistent with equipment capabilities and data requirements</p> <p>2.7 Implement procedures to deal with non-conformance in relation to process and the final product</p> <p>2.8 Implement and monitor process controls for the preparation and manufacture of the products</p>
3. Diagnose, rectify and report problems arising from the preparation and manufacture of ice creams and frozen dairy products	<p>3.1 Implement a sampling plan for ice creams and frozen dairy products</p> <p>3.2 Conduct sensory analysis to check quality of product</p> <p>3.3 Identify product defects and their causes in the preparation and manufacture of ice creams and frozen dairy products</p> <p>3.4 Identify and implement adjustments to process and equipment in response to analysed results</p> <p>3.5 Report problems to designated person</p>
4. Review production processes	<p>4.1 Review the critical control points (CCPs) and critical limits for product safety</p> <p>4.2 Review operating procedures for food safety and quality</p> <p>4.3 Review safe work systems for processing of products</p>

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	4.4 Review the environmental impacts and energy efficiencies for processing

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"> <li>Interpret food safety guidelines and regulations</li> <li>Interpret product quality and workplace procedures</li> </ul>
Oral communication	<ul style="list-style-type: none"> <li>Use industry terminology</li> </ul>
Numeracy	<ul style="list-style-type: none"> <li>Maintain and analyse data resulting from testing of products</li> <li>Determine calibration procedures and schedule for test equipment</li> </ul>
Navigate the world of work	<ul style="list-style-type: none"> <li>Monitor adherence to legal and regulatory standards and responsibilities for self and others</li> </ul>
Get the work done	<ul style="list-style-type: none"> <li>Problem-solve issues as they arise</li> <li>Use technology to access information, prepare reports, and to access and prepare relevant data</li> </ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPFST5026 Implement and review the production of ice creams and frozen dairy products	FDFST5026A Implement and review the production of ice creams and frozen dairy products	<p>Updated to meet Standards for Training Packages</p> <p>Minor changes to Performance Criteria to clarify intent</p>	Equivalent unit

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# Assessment Requirements for FBPFST5026 Implement and review the production of ice creams and frozen dairy products

## Modification History

Release	Comments
Release 1	This version released with the FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

## Performance Evidence

An individual demonstrating competency in this unit must satisfy all of the elements and performance criteria of this unit.

There must be evidence that the individual has implemented and reviewed the production of at least one ice cream or frozen dairy product, including:

- incorporating confectionery, flavourings or fruits
- identifying and diagnosing defects in the preparation and manufacture of ice creams or frozen dairy desserts
- implementing adjustments to process/equipment in response to review
- carrying out product sampling and testing according to the critical control point (CCP)-based plan and operational procedures.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- types of ice creams and frozen dairy products
- the role of the major ingredients found in ice creams and frozen dairy products
- the production system for the preparation and manufacture of ice creams and frozen dairy products, including production instruction, quality assurance requirements and specifications, production specification and standards, production equipment, production procedures, cleaning procedures and materials and raw materials
- the output of each of the processes used in the preparation and manufacture of ice creams and frozen dairy products
- the principles of operation of equipment and accessories used in the preparation and manufacture of ice creams and frozen dairy products
- different types and formulation of ice creams and frozen dairy products
- critical factors in the preparation and manufacture of ice creams and frozen dairy products

- identification of defects during production and of final products
- quality and continuous improvement processes
- sensory analysis techniques
- chemical, physical and microbiological hazards that may affect ice creams and frozen dairy products
- storage, handling and preparation procedures for ice creams and frozen dairy products
- CCP principles and critical limits in a CCP program
- regulatory requirements associated with ice creams and frozen dairy products.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - skills must be demonstrated in a workplace setting or an environment that accurately represents a real dairy processing workplace
- resources, equipment and materials:
  - production process and related equipment, manufacturers' advice and operating procedures
- specifications:
  - tests used to report relevant product/process information and recorded results.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# FBPFST5027 Implement and review the production of milk and related products by the membrane system

## Modification History

Release	Comments
Release 1	This version released with the FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

## Application

This unit of competency describes the skills and knowledge required to implement the production of milk and milk products using a membrane system, and to review production standards and procedures for that process. The individual is required to use knowledge of food science and processes to determine the required food safety quality and performance of food production equipment.

This unit applies to individuals who are responsible for maintaining product safety, quality and efficiency in the dairy processing sector, and who exercise autonomy in undertaking complex work related to food product design, quality assurance and production management.

No occupational licensing or certification requirements apply to this unit at the time of publication. However, legislative and regulatory requirements for food processing exist, so local requirements must be checked. All work must comply with Australian food safety standards and relevant codes of practice.

## Pre-requisite Unit

Nil

## Unit Sector

Food science and technology (FST)

## Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Plan and monitor the	1.1 Identify quality and safety standards for milk products

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
manufacturing of milk using a membrane system	<p>manufactured using a membrane system</p> <p>1.2 Select appropriate production systems and the sequence of activity, and prepare the system for operation</p> <p>1.3 Establish ingredients and resource requirements for production run</p> <p>1.4 Interpret or develop a production schedule to ensure all resources and requirements are available and meet company requirements</p> <p>1.5 Set the production system to operating specifications before and during production</p> <p>1.6 Document data requirements for food safety, quality and production standards</p> <p>1.7 Establish data collection points consistent with equipment capabilities and data requirements</p> <p>1.8 Apply or develop procedures to deal with non-conformance in processes</p> <p>1.9 Monitor process controls for the production of quality products</p>
2. Diagnose, rectify and report problems arising from manufacturing of milk and related products by a membrane system	<p>2.1 Determine and implement methods and systems to identify product defects in the preparation and production process</p> <p>2.2 Implement a sampling plan for products</p> <p>2.3 Conduct sensory analysis of products and analyse results</p> <p>2.4 Identify and apply adjustments to processes and equipment based on test results</p> <p>2.5 Report problems to designated person</p>
3. Review production processes	<p>3.1 Review the critical control points (CCPs) and critical limits for product safety</p> <p>3.2 Review operating procedures for the food safety and quality of products</p> <p>3.3 Review safe work systems for processing of products</p> <p>3.4 Review the environmental impacts and energy efficiencies for processing</p>



## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"><li>Interpret food safety guidelines and regulations</li><li>Interpret product quality and workplace procedures</li></ul>
Oral communication	<ul style="list-style-type: none"><li>Use industry standard terminology</li></ul>
Numeracy	<ul style="list-style-type: none"><li>Maintain and analyse data resulting from testing of products</li><li>Determine calibration procedures and schedule for test equipment</li></ul>
Navigate the world of work	<ul style="list-style-type: none"><li>Monitor adherence to legal and regulatory standards and responsibilities for self and others</li></ul>
Get the work done	<ul style="list-style-type: none"><li>Monitor outcomes of decisions and identify key product quality system concepts and principles that may be adaptable to future situations</li><li>Use technology to access and monitor information, prepare reports, and to access and prepare relevant data</li></ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPFST5027 Implement and review the production of milk and related products by the membrane system	FDFST5027A Implement and review the production of milk and related products by the membrane system	Updated to meet Standards for Training Packages  Minor changes to Performance Criteria to clarify intent	Equivalent unit

## Links

Companion Volume Implementation Guides are found in VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## Assessment Requirements for FBPFST5027 Implement and review the production of milk and related products by the membrane system

### Modification History

Release	Comments
Release 1	This version released with the FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

### Performance Evidence

An individual demonstrating competency in this unit must satisfy all of the elements and performance criteria of this unit.

There must be evidence that the individual has implemented and reviewed the production of one type of milk and one milk-related product, including:

- identifying and implementing the appropriate production system
- estimating the resource requirements for a specific order or run
- diagnosing, rectifying and/or reporting problems arising from the preparation and production using a membrane system
- implementing adjustments to process and equipment in response to test results
- carrying out product sampling and testing according to the critical control point (CCP)-based plan and operational procedures
- reviewing production procedures.

### Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- different types of milk and related products manufactured by a membrane system
- statutory compositional requirements for the different types of milk and related products manufactured by a membrane system
- the purpose of each process, and the principles of operation of equipment and accessories, for the preparation and production of different milk products
- production systems used by a membrane system
- operation of equipment and accessories used in the preparation and manufacturing processes

- critical factors in the preparation and production of milk and related products manufactured by a membrane system
- potential problems and product defects arising from a membrane system of manufacture
- formulation of milk and related products
- role of major ingredients found in milk and related products
- testing procedures for raw materials through to manufactured product
- sensory analysis techniques
- chemical and physical hazards that may affect milk and related products manufactured by a membrane system
- safe work procedures
- sanitation and hygiene procedures
- CCP principles and critical limits in a CCP program
- regulatory requirements associated with milk and related products manufactured by a membrane system
- environmental impacts of a membrane system.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - skills must be demonstrated in a workplace setting or an environment that accurately represents a real workplace
- resources, equipment and materials:
  - production process and related equipment, manufacturers' advice and operating procedures
- specifications:
  - tests used to report relevant product/process information and recorded results.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# FBPFST5028 Implement and review the manufacturing and processing of edible fats and oils

## Modification History

Release	Comments
Release 1	This version released with the FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

## Application

This unit of competency describes the skills and knowledge required to implement and review the manufacture and processing of edible fats and oils, based on the preparation of product samples.

This unit applies to food science and technology personnel who have roles in product design, quality assurance and production management. The unit typically applies to staff who have responsibility for maintaining product safety, quality and efficiency in food production in the edible fats and oils sector.

No occupational licensing or certification requirements apply to this unit at the time of publication. However, legislative and regulatory requirements for food processing exist, so local requirements must be checked. All work must comply with Australian food safety standards and relevant codes of practice.

## Pre-requisite Unit

Nil

## Unit Sector

Food science and technology (FST)

## Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Review preparation of plant and animal	1.1 Identify processing stages for preparation of products

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
products for oil extraction and processing	1.2 Establish the principles of pre-treatments for fat and oil processing 1.3 Establish regulatory, quality and safety requirements 1.4 Conduct test runs of the manufacturing process and check product against requirements
2. Monitor processing techniques and technologies to produce fat or oil product	2.1 Identify processing techniques and technologies used to produce edible fats and oils 2.2 Identify the steps involved in the manufacture of the product 2.3 Apply appropriate hygiene and sanitation practices 2.4 Identify data requirements appropriate for food safety, quality and production standards 2.5 Manufacture edible fats and oils according to specifications 2.6 Establish data collection points consistent with equipment capabilities and data requirements 2.7 Implement procedures to deal with non-conformance in relation to process and the final product
3. Review packaging of fat and oil products	3.1 Identify suitable packaging and storage requirements for the products and check against regulatory, client and company requirements 3.2 Undertake test packaging of products and check for safety and conformance to client and company requirements
4. Assess the quality, safety and shelf life of fats and oil products	4.1 Carry out tests to assess the safety and quality and to determine the shelf life of the product 4.2 Conduct sensory analysis to confirm product quality 4.3 Identify and assess all common hazards and critical control points (CCPs) for the production of products
5. Review production processes	5.1 Monitor and review the critical control points (CCPs) and critical limits for product safety 5.2 Review operating procedures for food safety and quality 5.3 Review the production plan against company and client schedules and quality requirements 5.4 Review environmental impacts and associated costs for processing of food products 5.5 Rectify or report issues arising with production processes

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"> <li>Interpret food safety guidelines and regulations</li> <li>Interpret product quality and workplace procedures</li> </ul>
Writing	<ul style="list-style-type: none"> <li>Develop procedures for implementing and monitoring a product quality system</li> </ul>
Numeracy	<ul style="list-style-type: none"> <li>Maintain and analyse data resulting from testing of products</li> <li>Determine calibration procedures and schedule for test equipment</li> </ul>
Navigate the world of work	<ul style="list-style-type: none"> <li>Monitor adherence to legal and regulatory standards and responsibilities for self and others</li> </ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPFST5028 Implement and review the manufacturing and processing of edible fats and oils	FDFST4052A Implement and review the manufacturing and processing of edible fats and oils	<p>Updated to meet Standards for Training Packages</p> <p>Minor changes to Performance Criteria to clarify intent</p> <p>Unit code updated to reflect AQF level</p>	Equivalent unit

## Links

Companion Volume Implementation Guides are found in VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>



# Assessment Requirements for FBPFST5028 Implement and review the manufacturing and processing of edible fats and oils

## Modification History

Release	Comments
Release 1	This version released with the FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

## Performance Evidence

An individual demonstrating competency in this unit must satisfy all of the elements and performance criteria of this unit.

There must be evidence that the individual has implemented and reviewed the manufacturing and processing of at least one edible fat or oil product, including:

- reviewing the various methods of storage that assist to prolong the shelf life of fats and oils
- using processing techniques, utilising commercial materials and equipment
- carrying out product testing
- monitoring compliance of processing procedures with food safety and quality requirements
- diagnosing, rectifying and/or reporting problems and non-compliances arising from the preparation and production of animal- and plant-based fats and oils
- interpreting critical control points (CCPs) and critical limits.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- widely available animal- and plant-based fats and oils and seasonal availability
- the physiological and chemical changes that can occur in fats and oils during harvest, transport and further processing
- various methods of storage that assist in prolonging the shelf life of animal- and plant-based fats and oils
- processing techniques and technologies used to produce animal- and plant-based fats and oils
- testing techniques used to identify quality and safety parameters of edible fats and oils
- packaging requirements for edible fats and oils



- sensory analysis parameters for edible fats and oils
- common spoilage reactions associated with fats and oils
- manufacturing processes for a range of fats and oils
- the physiology and chemistry of edible fats and oils
- methods of storage for edible fats and oils
- regulatory, quality and safety requirements relating to the production of fats and oils
- CCPs and critical limits at each stage of the production process
- environmental impacts of the processing operation
- health and safety hazards in the workplace and controls relating to work processes.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - skills must be demonstrated in a workplace setting or an environment that accurately represents a real food production workplace
- resources, equipment and materials:
  - production process and related equipment, manufacturers' advice and operating procedures
- specifications:
  - tests used to report relevant product/process information and recorded results.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## FBPFST5029 Implement and review manufacturing, packaging and testing of beverage products

### Modification History

Release	Comments
Release 1	This version released with the FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

### Application

This unit of competency describes the skills and knowledge required to implement and review processes for manufacturing, packaging and testing of beverage products.

This unit applies to individuals who use knowledge of food science and processes to assess product safety, quality and efficiency of production processes in the beverage sector.

No occupational licensing or certification requirements apply to this unit at the time of publication. However, legislative and regulatory requirements for food processing exist, so local requirements must be checked. All work must comply with Australian food safety standards and relevant codes of practice.

### Pre-requisite Unit

Nil

### Unit Sector

Food science and technology (FST)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Produce a range of beverage product samples	1.1 Source raw materials for production of beverage 1.2 Select and prepare equipment for beverage production 1.3 Implement pre-treatments for beverage production

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	<p>1.4 Identify and use permissible additives and preservatives</p> <p>1.5 Identify data requirements for food safety, quality and production standards</p> <p>1.6 Establish data collection points consistent with equipment capabilities and data requirements</p> <p>1.7 Use appropriate processing techniques and technologies to produce a range of beverage product samples</p> <p>1.8 Identify or develop procedures to deal with non-conformance in relation to process and the final product</p> <p>1.9 Produce sample products using appropriate hygiene and sanitation techniques</p>
2. Review packaging of beverage products	<p>2.1 Identify packaging requirements for beverage products and confirm they are consistent with regulatory, client and company requirements</p> <p>2.2 Implement or supervise test packaging of the product and check for safety and conformance to client and company requirements</p>
3. Assess the quality, safety and shelf life of a range of beverage products	<p>3.1 Carry out testing techniques including sensory analysis to assess the safety, quality and shelf life of the product</p> <p>3.2 Identify and assess all common hazards and critical control points (CCPs) for the production of products</p>
4. Review production processes	<p>4.1 Review the CCPs and critical limits for product safety</p> <p>4.2 Review operating procedures to ensure safe work, food safety and quality</p> <p>4.3 Review the environmental impacts and associated costs for processing of food products</p> <p>4.4 Update production processes where necessary</p>

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"> <li>Interpret food safety guidelines and regulations</li> <li>Interpret product specifications, quality and workplace procedures</li> </ul>
Numeracy	<ul style="list-style-type: none"> <li>Maintain and analyse data resulting from testing of products</li> <li>Determine calibration procedures and schedule for test equipment</li> </ul>
Navigate the world of work	<ul style="list-style-type: none"> <li>Monitor adherence to legal and regulatory standards and responsibilities for self and others</li> </ul>
Interact with others	<ul style="list-style-type: none"> <li>Clarify the purpose and possible actions to be taken as a result of work-related communications</li> </ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPFST5029 Implement and review manufacturing, packaging and testing of beverage products	FDFST4053A Implement and review manufacturing, packaging and testing of beverage products	<p>Updated to meet Standards for Training Packages</p> <p>Minor changes to Performance Criteria to clarify intent</p> <p>Unit code updated to reflect AQF level</p>	Equivalent unit

## Links

Companion Volume Implementation Guides are found in VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# Assessment Requirements for FBPFST5029 Implement and review manufacturing, packaging and testing of beverage products

## Modification History

Release	Comments
Release 1	This version released with the FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

## Performance Evidence

An individual demonstrating competency in this unit must satisfy all of the elements and performance criteria of this unit.

There must be evidence that the individual has implemented and reviewed manufacturing, packaging and testing of at least two beverage products, including:

- selecting and sourcing raw materials for processing beverages
- preparing a detailed production flow chart for beverage production
- determining data collection requirements for safety and quality monitoring
- conducting product sampling
- applying and interpreting a range of quality tests used in the manufacture of beverages, including brix, acidity, alcohol content determination, sulphur dioxide determination, carbonisation level, sensory evaluation and packaging integrity
- analysing test results
- monitoring compliance of processing procedures with food safety and quality requirements
- interpreting critical control points (CCPs) and critical limits
- reviewing quality procedures based on product testing.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- the range of beverage products, including beers, spirits, fruit juice products, carbonated beverages, fortified non-alcoholic beverages, tea and coffee
- the different styles of beers generally manufactured
- the different types of fruit juice products generally manufactured
- manufacturing process for the production of various types of fruit juices

- additives and preservatives used in different types of beverages
- manufacturing processes for a variety of carbonated and non-carbonated beverages
- the variety of styles of teas and coffees generally available
- manufacturing processes for the production of various styles of tea and coffee
- common spoilage and food poisoning organisms associated with beverage production
- brewing processes used in the production of various styles of beverages
- fermentation processes in various styles of beverage production
- quality tests used in the manufacture of beverages, including brix, acidity, alcohol content determination, sulphur dioxide determination, carbonisation level, sensory evaluation and packaging integrity
- stages of production, CCPs and critical limits for production processes
- packaging procedures
- regulatory requirements associated with processing beverages
- environmental impacts of the processing operation
- health and safety hazards in the workplace and controls relating to work processes.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - skills must be demonstrated in a workplace setting or an environment that accurately represents a real workplace
- resources, equipment and materials:
  - production process and related equipment, manufacturers' advice and operating procedures
- specifications:
  - tests used to report relevant product/process information and recorded results.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# FBPFST5030 Implement and review manufacturing of cereal products

## Modification History

Release	Comments
Release 1	This version released with the FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

## Application

This unit of competency describes the skills and knowledge required to implement and review the manufacture of cereal products. The individual is required to use knowledge of food science and processes to assess product safety and quality and the efficiency of cereal production processes.

This unit applies to individuals who are responsible for maintaining product safety, quality and efficiency in cereal production.

No occupational licensing or certification requirements apply to this unit at the time of publication. However, legislative and regulatory requirements for food processing exist, so local requirements must be checked. All work must comply with Australian food safety standards and relevant codes of practice.

## Pre-requisite Unit

Nil

## Unit Sector

Food science and technology (FST)

## Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Carry out preparation and pre-treatments for cereal-based products	1.1 Identify and document processes for preparing the products 1.2 Select ingredients and prepare for processing

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
processing	1.3 Select and prepare required materials and equipment
2. Produce a range of cereal-based product samples	2.1 Select appropriate additives and preservatives used in the production of product samples 2.2 Identify data requirements for food safety, quality and production standards 2.3 Establish data collection points consistent with equipment capabilities and data requirements 2.4 Adjust procedures to deal with non-conformance in relation to processes and the final product 2.5 Implement appropriate processing techniques and technologies
3. Review packaging and procedures for cereal-based products	3.1 Identify suitable packaging requirements for cereal-based products consistent with regulatory, client and workplace requirements 3.2 Carry out or supervise test packaging of products and check for safety and conformance to customer and workplace requirements 3.3 Apply adjustments to packaging procedures and design
4. Assess the quality and safety and shelf life of a range of cereal-based products	4.1 Carry out testing techniques to assess the quality and safety of the products 4.2 Carry out a range of testing techniques to determine the shelf life of the products 4.3 Identify and assess all common hazards at critical control points (CCPs) for the production of products
5. Review production processes	5.1 Review the CCPs and critical limits for product safety 5.2 Review operating procedures for food safety and quality 5.3 Review the production plan for processing of food products 5.4 Review the environmental impacts and associated costs for processing of food products

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*



Skill	Description
Reading	<ul style="list-style-type: none"> <li>Interpret food safety guidelines and regulations</li> <li>Interpret product quality and workplace procedures</li> </ul>
Numeracy	<ul style="list-style-type: none"> <li>Maintain and analyse data resulting from testing of products</li> <li>Determine calibration procedures and schedules for test equipment</li> </ul>
Navigate the world of work	<ul style="list-style-type: none"> <li>Monitor adherence to legal and regulatory standards and responsibilities for self and others</li> </ul>
Get the work done	<ul style="list-style-type: none"> <li>Monitor outcomes of decisions and identify key product quality system concepts and principles that may be adaptable to future situations</li> <li>Use digital tools to monitor processes and access and organise complex data</li> </ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPFST5030 Implement and review manufacturing of cereal products	FDFST4054A Identify and implement product safety for manufacturing of cereal products	<p>Updated to meet Standards for Training Packages</p> <p>Minor changes to Performance Criteria to clarify intent</p> <p>Updated unit title</p> <p>Unit code updated to reflect AQF level</p>	Equivalent unit

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# Assessment Requirements for FBPFST5030 Implement and review manufacturing of cereal products

## Modification History

Release	Comments
Release 1	This version released with the FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

## Performance Evidence

An individual demonstrating competency in this unit must satisfy all of the elements and performance criteria of this unit.

There must be evidence that the individual has effectively implemented and reviewed the manufacturing of at least two different cereal products, including:

- checking selected ingredients and preparing equipment for processing
- applying production processes to prepare and manufacture cereal products
- conducting sensory evaluation and product testing
- reviewing production processes, critical control point (CCP)-based food safety plans and product quality
- determining data requirements for monitoring product safety and quality
- monitoring compliance of processing procedures with food safety and quality requirements
- interpreting CCPs and critical limits
- diagnosing, rectifying and/or reporting problems arising from the preparation and production of cereal products.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- the different varieties of cereal grains
- the processing techniques and technologies used to produce various cereal products
- the major constituents of a cereal grain
- additives and preservatives used in cereal production
- the use of each constituent of a cereal grain
- the milling process generally used to produce flour
- gluten and its role in a range of wheat-flour-based products

- bread, biscuit, cake and pastry production techniques
- the manufacturing processes used to produce pasta and noodle products
- the manufacturing processes used to produce breakfast cereal products
- regulatory requirements associated with processing cereal products, including food safety standards
- environmental impacts of the processing operation
- health and safety hazards in the workplace and controls relating to work processes.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - skills must be demonstrated in a workplace setting or an environment that accurately represents a real food manufacturing workplace
- resources, equipment and materials:
  - production process and related equipment, manufacturers' advice and operating procedures
- specifications:
  - tests used to report relevant product/process information and recorded results.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# FBPFST6001 Develop, manage and maintain quality systems for food processing

## Modification History

Release	Comments
Release 1	This version released with the FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

## Application

This unit of competency describes the skills and knowledge required to develop, manage and maintain quality systems to enable food processing enterprises to operate in specific markets and build consumer confidence in products. The individual is required to demonstrate deep knowledge in a specific technical area and to design and communicate solutions to sometimes complex problems.

This unit applies to individuals who are responsible for designing, implementing and continually improving a quality (QA) system in food production. They typically have responsibility for the establishment and review of systems for the site or department. They may work with the assistance of external experts to develop plans and strategies.

No occupational licensing or certification requirements apply to this unit at the time of publication. However, legislative and regulatory requirements for food processing exist, so local requirements must be checked. All work must comply with Australian food safety standards and relevant codes of practice.

## Pre-requisite Unit

Nil

## Unit Sector

Food science and technology (FST)

## Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Establish requirements of the quality system	<p>1.1 Develop policies expressing the organisation's commitment to the quality system and processes</p> <p>1.2 Identify legislative requirements for quality systems</p> <p>1.3 Determine scope and objectives of the quality system in relation to all business operations, customers, suppliers and contractors</p> <p>1.4 Establish quality performance standards, including for customer and supplier service, consistent with the direction and goals of the organisation</p> <p>1.5 Identify resource requirements and include in financial, human resource and operational plans</p>
2. Design the quality system	<p>2.1 Apply quality principles to all business operations to achieve business goals and performance standards</p> <p>2.2 Define and communicate responsibilities for development, implementation and operation of the quality system</p> <p>2.3 Include personnel from all levels and areas of the organisation in the development and implementation of the quality system</p> <p>2.4 Develop and validate quality system components, procedures, policies and supporting documentation to meet organisation, customer and regulatory requirements</p> <p>2.5 Develop consultative and communication strategies to link the quality system with all aspects of business operations</p> <p>2.6 Negotiate supplier or contractor service standards and audit requirements</p> <p>2.7 Develop performance measures and indicators to measure performance against policies, goals and performance standards</p>
3. Implement and monitor the quality system	<p>3.1 Prepare and resource the implementation plan for the quality system</p> <p>3.2 Prepare and resource training plans to provide personnel at all levels with quality concepts and skills</p> <p>3.3 Address quality system requirements and customer focus in the establishment, operation and evaluation of all quality system components</p> <p>3.4 Identify, develop and monitor control and preventative action measures and procedures</p> <p>3.5 Establish procedures for reporting, recording and responding to</p>

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	non-conformances and non-compliances 3.6 Monitor and document customer and supplier service standards 3.7 Collect and analyse quality data and report issues 3.8 Monitor quality costs and performance 3.9 Prepare quality system for external review and approval by relevant authorities
4. Continuously improve the quality system	4.1 Monitor and review impacts of the quality system on operations 4.2 Respond to and resolve customer complaints and requests, and use the information to improve the system 4.3 Establish procedures for the ongoing identification and resolution of issues 4.4 Update the quality system for changes in process, technical information, customer and regulatory requirements 4.5 Engage stakeholders in decision making and continuous improvement processes and strategies 4.6 Use quality results, findings and conclusions in improvement processes 4.7 Analyse the costs and benefits of the quality system 4.8 Review quality goals and targets continuously
5. Communicate quality outcomes	5.1 Complete the certification of product and processes consistent with quality outcomes and customer and regulatory requirements 5.2 Notify regulatory authorities and agencies of breaches and non-compliance incidents 5.3 Use quality outcomes to promote public confidence in products and services

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
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Skill	Description
Reading	<ul style="list-style-type: none"> <li>Interpret food safety guidelines and regulations</li> <li>Interpret quality procedures</li> </ul>
Writing	<ul style="list-style-type: none"> <li>Develop procedures for implementing and monitoring a quality system</li> <li>Document plans and standards for a quality system</li> </ul>
Numeracy	<ul style="list-style-type: none"> <li>Maintain and analyse data resulting from monitoring and reviewing of a quality system</li> <li>Analyse costs of a quality system</li> </ul>
Navigate the world of work	<ul style="list-style-type: none"> <li>Monitor adherence to legal and regulatory standards and responsibilities for self and others</li> </ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPFST6001 Develop, manage and maintain quality systems for food processing	FDFST5030A Develop, manage and maintain quality systems for food processing	<p>Updated to meet Standards for Training Packages</p> <p>Unit code updated to reflect AQF level</p>	Equivalent unit

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# Assessment Requirements for FBPFST6001 Develop, manage and maintain quality systems for food processing

## Modification History

Release	Comments
Release 1	This version released with the FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

## Performance Evidence

An individual demonstrating competency in this unit must satisfy all of the elements and performance criteria of this unit.

There must be evidence that the individual has developed, managed and maintained quality systems for food processing on at least one occasion, including:

- developing and documenting quality system procedures in compliance with enterprise and legislative requirements
- implementing the quality system in a typical food production process, including establishing responsibilities, training requirements and reporting arrangements
- collecting and analysing process control data and other data, and recommending quality system improvements
- developing procedures to deal with non-conformance in relation to quality system requirements.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- the key concepts, philosophies and tools of quality management
- the management and organisational structure and its impact on quality systems
- the role audits play in a quality system
- documentation requirements of the quality system and their roles in the functioning of the system, including the requirement for effective and secure quality recordkeeping systems
- organisational goals and directions and their implications for the quality system
- the legal requirements for the establishment and maintenance of the quality system, including responsibilities for reporting breaches to authorities and implementing audit findings



- existence of International Organization for Standardization (ISO) 22000:2005 Food safety management systems, ISO 22003:2013 Food safety management systems, and ISO 103393:2013 Consumer product recall
- the principles and functions of hazard analysis and control, validation (including auditing) and verification of quality systems
- quality and performance standards relevant to a food production operation.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - skills must be demonstrated in a workplace setting or an environment that accurately represents a real workplace
- resources, equipment and materials:
  - production process and related equipment, manufacturers' advice and operating procedures
  - a food processing enterprise with documentation to support the implementation of a quality system
  - methods and related software systems for collecting data and calculating yields, efficiencies and material variances appropriate to production environment
- specifications:
  - tests used to report relevant product/process information and recorded results.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# FBPFSY1001 Follow work procedures to maintain food safety

## Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package version 1.0.

## Application

This unit of competency describes the skills and knowledge required to maintain food safety when carrying out work tasks. Basic food safety practices include personal hygiene and conduct, food handling, housekeeping and waste disposal related to work tasks and responsibilities where work involves routine manual processes and operation of simple automated equipment.

This unit applies to individuals who work alongside a supervisor in most situations and is relevant to a number of job roles throughout food processing industries at various levels.

All work must be carried out to comply with workplace procedures, in accordance with State/Territory food safety requirements that apply to the workplace.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

## Pre-requisite Unit

Nil

## Unit Sector

Food Safety (FSY)

## Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Handle food safely	1.1 Identify food handling requirements applicable to the workplace 1.2 Carry out food handling as directed

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	1.3 Maintain the workplace in a clean and tidy state
2. Identify, control and report food safety hazards	2.1 Monitor work area, materials, equipment and product routinely to ensure compliance with food safety requirements 2.2 Identify processes, practices or conditions which are not consistent with the food safety program and tell supervisor
3. Comply with personal hygiene standards	3.1 Ensure personal hygiene meets the requirements of the food safety program 3.2 Tell supervisor of any health conditions and illness 3.3 Wear clothing and footwear appropriate for the food handling task 3.4 Follow food safety program requirements when transferring between tasks and locations in the workplace

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"> <li>Interpret workplace food safety procedures and information</li> <li>Interpret environmental, recycling and waste disposal guidelines</li> </ul>
Writing	<ul style="list-style-type: none"> <li>Record information on paper-based and electronic media</li> <li>Report and document health conditions and illnesses</li> </ul>
Numeracy	<ul style="list-style-type: none"> <li>Monitor and interpret food safety information and data</li> </ul>
Navigate the world of work	<ul style="list-style-type: none"> <li>Apply workplace procedures relevant to own responsibilities</li> <li>Understand main tasks, responsibilities and boundaries of own role, including use of personal protective clothing and equipment, housekeeping standards and procedures, quality requirements and operating procedures</li> </ul>
Interact with others	<ul style="list-style-type: none"> <li>Communicate and report information to relevant persons</li> <li>Ask questions to clarify understanding or seek further information</li> <li>Cooperate with others to control food safety hazards</li> </ul>
Get the work done	<ul style="list-style-type: none"> <li>Make routine decisions to correct abnormal food safety issues</li> </ul>

Skill	Description
	<ul style="list-style-type: none"><li>Identify and report problems to appropriate personnel</li></ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPFSY1001 Follow work procedures to maintain food safety	FDFFS1001A Follow work procedures to maintain food safety	Updated to meet Standards for Training Packages	Equivalent unit

## Links

Companion Volumes, including Implementation Guides, are available at VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## Assessment Requirements for FBPF SY1001 Follow work procedures to maintain food safety

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package version 1.0.

### Performance Evidence

An individual demonstrating competency must satisfy all elements and performance criteria in this unit.

There must be evidence that the individual has followed work procedures to maintain food safety on at least one occasion, including:

- locating and following workplace information relating to food safety responsibilities
- monitoring own work and implementing any controls as required by the food safety program, including visual inspections and checks
- following workplace procedures to maintain food safety as required by the food safety program relating to own work
- identifying and correcting or reporting situations that do not meet the requirements of the food safety program and/or could result in unsafe food
- handling, cleaning and storing equipment, utensils, packaging materials and similar items according to the requirements of the food safety program as required by work role
- maintaining personal hygiene consistent with the food safety program
- taking necessary precautions when moving around the workplace and/or from one task to another to maintain food safety
- wearing and maintaining appropriate clothing/footwear as required by work tasks and consistent with the requirements of the food safety program
- reporting health conditions and illness as appropriate according to the food safety program
- handling and/or disposing of out-of-specification or contaminated materials, ingredients and product, waste and recyclable material as required by work responsibilities
- maintaining the work area in a clean and tidy state
- cleaning and sanitising equipment according to workplace procedures
- recording food safety information according to workplace procedures.

### Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- food safety requirements related to work responsibilities, including personal hygiene, requirements and procedures to report illness and safe food handling practices for own work, as well as the possible consequences of not following these procedures
- common types and sources of contamination that occur in the work area, including cross-contamination
- control methods and procedures used in the workplace, including reporting non-compliance and following instructions
- storage and handling requirements for ingredients, materials and product used related to work role
- housekeeping requirements and responsibilities, and use and storage of housekeeping/cleaning equipment
- purpose and importance of cleaning and sanitation procedures
- suitable standard for materials, equipment and utensils used in the work area
- waste collection, recycling and handling procedures relevant to own work responsibilities
- procedures to follow in the event of pest sighting or discovery of infestation
- clothing and footwear requirements for working in and/or moving between food handling areas
- personal clothing maintenance, laundering and storage requirements
- appropriate bandages and dressings to be used when undertaking food handling
- workplace cleaning procedures
- recording/reporting requirements and responsibilities for workplace food safety.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - a workplace or an environment that accurately represents workplace conditions
- resources, equipment and materials:
  - appropriate clothing and related apparatus
  - reporting and monitoring systems
- specifications:
  - food safety information relating to the workplace, including a food safety program outlining food safety hazards and control methods
  - related work instructions and procedures
  - work tasks and responsibilities
  - cleaning and sanitation policies and procedures.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volumes, including Implementation Guides, are available at VETNet: - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>



# FBPFSY2001 Implement the food safety program and procedures

## Modification History

Release	Comments
Release 1	This version released with the FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

## Application

This unit of competency describes the skills and knowledge required to maintain personal hygiene and conduct work tasks where work involves operation of production and packaging equipment and processes.

This unit applies to individuals who participate and comply with safety programs in the food processing sector. It does not apply to the pharmaceutical industry.

Legislative and regulatory requirements apply to food safety and are enforced through state/territory jurisdictions. Users must check with the relevant regulatory authority before delivery.

## Pre-requisite Unit

Nil

## Unit Sector

Food safety (FSY)

## Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Implement the food safety program	1.1 Identify food handling requirements 1.2 Carry out food handling and control food safety hazards according to the food safety program 1.3 Report any incident where food safety control requirements are not met and take corrective action as directed



Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	1.4 Record food safety information to meet requirements of the food safety program 1.5 Maintain the workplace in a clean and tidy order to meet workplace standards 1.6 Conduct work to comply with workplace environmental guidelines
2. Participate in maintaining and improving food safety	2.1 Monitor work area, materials, equipment and product to ensure compliance with food safety requirements 2.2 Identify and report processes, practices or conditions that could result in a food safety breach, and take corrective action as directed 2.3 Raise food safety issues with supervisor
3. Comply with personal hygiene standards	3.1 Ensure personal hygiene meets the requirements of the food safety program 3.2 Report health conditions and illness as required by the food safety program 3.3 Wear appropriate clothing and footwear for the food handling task 3.4 Move around the workplace in compliance with the food safety program

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"> <li>Interpret information relating to food safety and environmental guidelines</li> </ul>
Numeracy	<ul style="list-style-type: none"> <li>Monitor and interpret food safety information and data</li> </ul>
Navigate the world of work	<ul style="list-style-type: none"> <li>Understand main tasks, responsibilities and boundaries of own role, including use of personal protective clothing and equipment</li> </ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPFSY2001 Implement the food safety program and procedures	FDFFS2001A Implement the food safety program and procedures	Updated to meet Standards for Training Packages	Equivalent unit

## Links

Companion Volume Implementation Guides are found in VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# Assessment Requirements for FBPF SY2001 Implement the food safety program and procedures

## Modification History

Release	Comments
Release 1	This version released with the FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

## Performance Evidence

An individual demonstrating competency in this unit must satisfy all of the elements and performance criteria of this unit.

There must be evidence that the individual has effectively implemented the food safety program and procedures on two separate occasions in a food processing or food packaging environment, including:

- identifying own responsibilities with regard to food safety
- identifying food safety risks in the workplace and the control measures used to manage them
- applying control measures in own work
- monitoring compliance with food safety standards
- identifying and acting on non-compliances, and participating in improving safety
- maintaining required standards of personal hygiene.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- sources of information and expertise on procedures and responsibilities for food safety relating to own work
- basic concepts of critical control point (CCP)-based food safety, including identification of hazards that are likely to occur, establishing appropriate methods of control and confirming that controls are met
- food safety management arrangements in the workplace, including awareness of food safety legislation, workplace policies and procedures to implement responsibilities, understanding the relationship between the quality system and the food safety program, personnel responsible for developing and implementing the food safety program, the role of internal and external auditors as appropriate, procedures followed to investigate contamination events, and performance improvement processes

- Food Standards Code and why it exists
- common microbiological, physical and chemical hazards related to the foods handled in the work area, including the types of hazards likely to occur, the conditions under which they occur, possible consequences, and control methods to prevent occurrence
- basic understanding of the properties, handling and storage requirements of ingredients, materials and products handled and used
- methods used to monitor that food safety is under control, including the purpose of sampling
- action required in the event of non-compliance (corrective action is typically described in the food safety program and/or related workplace information)
- purpose of keeping records, and the recording requirements of the food safety program
- methods used in the workplace to isolate or quarantine food that may be unsafe
- product and ingredient traceability procedures, such as product recall where required by work responsibilities
- clothing and footwear requirements for working in and/or moving between food handling areas
- personal clothing maintenance, laundering and storage requirements
- appropriate bandages and dressings to be used when undertaking food handling
- housekeeping requirements and responsibilities relating to own work, and use and storage of housekeeping/cleaning equipment where relevant
- procedures to follow in the event of pest sighting or discovery of infestation
- purpose and importance of cleaning and sanitation procedures.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - skills must be demonstrated in a workplace setting or an environment that accurately represents a real food processing workplace
- resources, equipment and materials:
  - food safety information relating to the workplace, including a food safety program outlining food safety hazards and control methods
  - sampling and test procedures and related equipment
  - appropriate clothing and related apparatus
  - reporting and monitoring systems
- specifications:
  - work instructions and procedures relevant to work task
  - cleaning and sanitation policies and procedures.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volume Implementation Guides are found in VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## FBPFSY3001 Monitor the implementation of quality and food safety programs

### Modification History

Release	Comments
Release 1	This version released with the FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

### Application

This unit of competency describes the skills and knowledge required to provide a leadership role in supporting day-to-day implementation of the quality and food safety programs and procedures in a work area.

The unit applies to individuals who monitor, maintain and oversee quality standards and food safety programs and take corrective action in response to non-compliance. It does not apply to the pharmaceutical industry.

Legislative and regulatory requirements apply to food safety and are enforced through state/territory jurisdictions. Users must check with the relevant regulatory authority before delivery.

### Pre-requisite Unit

Nil

### Unit Sector

Food safety (FSY)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Ensure others in the work area are able to meet quality and food safety requirements	1.1 Ensure appropriate personal protective clothing and equipment is available, functional and fits correctly 1.2 Confirm that information on food safety and quality responsibilities and procedures is current, accessible and

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	<p>communicated to others in the work area</p> <p>1.3 Confirm that information about identified hazards and the outcomes of risk assessment and risk control procedures is accessible and communicated to others in the work area</p> <p>1.4 Confirm that mentoring and coaching support is available to support individuals and groups to implement quality and safe food handling procedures</p>
2. Monitor observance of quality standards and food safety programs in the work area	<p>2.1 Confirm that work procedures in the work area are clearly defined, documented and followed</p> <p>2.2 Identify deviation from procedures, and report and address within level of responsibility</p> <p>2.3 Ensure that staff behaviour is consistent with workplace policies and procedures that support food safety and quality</p> <p>2.4 Identify and report food safety and quality hazards</p> <p>2.5 Record food safety and quality information</p> <p>2.6 Maintain the work area to comply with housekeeping standards</p> <p>2.7 Conduct work to comply with workplace environmental guidelines</p>
3. Take corrective action in response to quality and food safety non-compliance	<p>3.1 Implement workplace procedures for responding to quality and food safety non-compliance</p> <p>3.2 Investigate hazardous events to identify cause</p> <p>3.3 Implement control measures to prevent recurrence and minimise risks of hazardous events</p>
4. Improve quality and food safety in the work area	<p>4.1 Identify opportunities for improving food safety and quality, and raise with relevant personnel</p> <p>4.2 Contribute to revising procedures to support effective control of quality and food safety hazards</p> <p>4.3 Communicate improvements to team members</p>

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"><li>Interpret food safety program</li><li>Interpret workplace food safety practices and procedures</li></ul>
Navigate the world of work	<ul style="list-style-type: none"><li>Apply knowledge of regulations and policies relevant to workplace food safety program</li></ul>
Get the work done	<ul style="list-style-type: none"><li>Use problem-solving skills to investigate non-conformance, and revise procedures where necessary</li></ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPFSY3001 Monitor the implementation of quality and food safety programs	FDFFS3001A Monitor the implementation of quality and food safety programs	Updated to meet Standards for Training Packages  Prerequisite unit removed  Minor changes to Performance Criteria to clarify intent	Equivalent unit

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>



# Assessment Requirements for FBPF SY3001 Monitor the implementation of quality and food safety programs

## Modification History

Release	Comments
Release 1	This version released with the FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

## Performance Evidence

An individual demonstrating competency in this unit must satisfy all of the elements and performance criteria of this unit.

There must be evidence that the individual has effectively monitored the implementation of quality and food safety programs on two different occasions, including:

- confirming quality and food safety program requirements, risks and control measures of the work area
- confirming that control measures are in place and that personnel in the work area are equipped and informed to implement programs
- identifying, addressing and following up on non-compliances
- identifying causes of non-compliance
- conducting risk assessments and recommending responsive actions
- providing support to others to implement the programs
- completing and maintaining documentation.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- procedures and responsibilities for food safety relevant to the workplace
- principles of a critical control point (CCP) analyses approach to managing food safety, including identifying hazards that are likely to occur, establishing appropriate methods of control, and confirming that controls are met
- Food Standards Code
- basic concepts of quality assurance, including hazards, risk assessment and control methods

- methods to manage and support quality and food safety in the workplace, including systems for maintaining and updating documents, including operating procedures and specifications
- clothing and footwear requirements for working in and/or moving between food handling areas, including personal clothing maintenance, laundering and storage requirements
- appropriate bandages and dressings to be used when undertaking food handling
- housekeeping requirements and responsibilities relating to own work, including use and storage of housekeeping/cleaning equipment
- procedures to follow in the event of pest sighting or discovery of infestation
- purpose and importance of cleaning and sanitation procedures
- legislative requirements for food safety and quality
- awareness of common microbiological, physical and chemical hazards related to the foods handled in the work area, including the types of hazards likely to occur, the conditions under which they occur, possible consequences, and control methods to prevent occurrence
- suitable standard for materials, measuring devices, equipment and utensils used in the work area
- properties of food and ingredients used that affect food safety, including an understanding of related storage, processing and handling requirements
- reasons that food safety/quality hazards occur, including an understanding of common microbiological, physical and chemical hazards, related control methods and the way changes in equipment and/or processing methods can affect food safety and quality outcomes
- procedures for identifying unsafe and/or non-conforming product, including control points and evidence of out-of-specification product or materials
- sampling procedures, test methods and inspections
- options for responding to non-compliance, including legal responsibility, risk management and cost/implications of different responses, and level of responsibility for decision-making
- methods used in the workplace to isolate or quarantine food that may be unsafe
- waste collection, recycling, handling and disposal, including handling/disposal requirements for different types of waste, including hazardous waste
- traceability and recall procedures within level of responsibility
- documentation system and procedures, including recordkeeping to meet both company and legal requirements, procedures for developing and/or reviewing workplace procedures, and document control systems used in the workplace
- internal and external auditing arrangements, roles and responsibilities as they relate to own work responsibilities
- appropriate communication skills and techniques to convey information on quality and food safety requirements to others in the workplace.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:

- skills must be demonstrated in a workplace setting or an environment that accurately represents a real workplace
- resources, equipment and materials:
  - personal protective clothing and equipment as required
  - reporting and monitoring systems
- specifications:
  - food safety program for the work area that identifies critical control points, control measures and corrective actions
  - quality policy, system and procedures
- relationships:
  - interactions with work team and supervisor.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volume Implementation Guides are found in VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## FBPFSY3002 Participate in a HACCP team

### Modification History

Release	Comments
Release 1	This version released with the FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

### Application

This unit of competency describes the skills and knowledge required to participate in the development and review of a hazard analysis critical control point (HACCP)-based food safety program.

The unit applies to individuals who work under broad direction and take responsibility for their own work, including limited responsibility for the work of others, and who participate in the development of a food safety program typically limited to their immediate work area.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

### Pre-requisite Unit

Nil

### Unit Sector

Food safety (FSY)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare to develop and review a food safety program	1.1 Recognise roles and responsibilities for participating in, developing or reviewing a food safety program 1.2 Identify the scope of a food safety program
2. Identify and review food safety hazards	2.1 Identify processes to be covered by the food safety program and recognise the steps within each process

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	2.2 Identify food safety hazards that are reasonably expected for each critical control point 2.3 Review safety handling methods, processing techniques and existing support programs used in the workplace as part of a team
3. Establish or review methods to monitor and control food safety hazards	3.1 Establish acceptable methods of control for each food safety hazard that is reasonably expected to occur 3.2 Validate control methods against safety standards 3.3 Establish or review procedures for taking preventative action 3.4 Establish or review appropriate methods for monitoring that processes remain within control 3.5 Establish required corrective action to respond to situations where hazards are not effectively controlled

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Get the work done	<ul style="list-style-type: none"> <li>Recognise and respond to predictable safety problems, and implement standard or logical solutions</li> <li>Identify ideas for improvements to safety processes, and consider them in current contexts</li> </ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPFSY3002 Participate in a HACCP team	FDFTEC3001A Participate in a HACCP team	Updated to meet Standards for Training Packages	Equivalent unit

		Prerequisite removed	
		Minor changes to Performance Criteria for clarity	
		Unit code changed to reflect more suitable sector alignment	

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# Assessment Requirements for FBPF SY3002 Participate in a HACCP team

## Modification History

Release	Comments
Release 1	This version released with the FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

## Performance Evidence

An individual demonstrating competency in this unit must satisfy all of the elements and performance criteria of this unit.

There must be evidence that the individual has actively participated in a food safety team on a minimum of two occasions, including:

- identifying food safety hazards in the critical control points (CCPs) of production processes
- establishing and validating control standards and methods for a minimum of two potential hazards
- applying food safety procedures.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- purpose and intent of food safety legislation, including Food Standards Code
- the roles and responsibilities for developing and maintaining the food safety program, including roles of internal and external auditors and authorised officers
- techniques for applying critical control point principles, including techniques for identifying hazards, assessing the likelihood of occurrence, determining acceptable methods of control, monitoring and recording requirements for each control point, identifying corrective action if controls are not met, and developing system review procedures
- techniques used to map operations and analyse food safety requirements, such as preparation of flow charts, hazard analysis charts and tables, and data analysis reports
- raw materials, ingredients and finished product composition and characteristics, and related handling and storage requirements
- food processing methods used in the workplace or work area and their effect on food safety

- sources of technical expertise on food safety requirements
- the role of consultation in the development, implementation and ongoing maintenance of the food safety program
- documentation and recording requirements to support communication and monitoring of the food safety program, including procedures for maintaining and updating relevant documents, such as operating procedures
- main types of food safety hazards and contamination likely to occur given product type and processing methods used
- conditions required for bacterial food poisoning to occur, such as water activity, pH, composition and time and temperature as relevant to food handled
- acceptable control methods for identified hazards, and required corrective actions when control requirements are not met
- typical support programs, such as cleaning schedules, pest control, stock rotation, product traceability, personal hygiene, and how they can be used as part of a food safety program
- validation and verification processes and techniques and responsibilities.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - skills must be demonstrated in a workplace setting or an environment that accurately represents a real workplace
- resources, equipment and materials:
  - workplace food safety program documentation
- specifications:
  - review/audit arrangements
  - advice on quality and food safety legislation
  - procedures for developing or modifying specifications and other advice on food safety requirements
  - reporting/recording system
- relationships (internal and/or external):
  - interactions with team members.

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>



# FBPFSY4001 Supervise and maintain a food safety plan

## Modification History

Release	Comments
Release 1	This version released with the FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

## Application

This unit of competency describes the skills and knowledge required to maintain and implement a hazard analysis critical control point (HACCP)-based food safety plan. It includes the ability to monitor the implementation of a food safety plan, to revise, verify and validate the system, and to respond to audit findings for the system.

This unit applies to individuals who monitor and maintain a food safety plan in the workplace.

Legislative and regulatory requirements apply to food safety and are enforced through state/territory jurisdictions. Users must check with the relevant regulatory authority before delivery.

## Pre-requisite Unit

Nil

## Unit Sector

Food safety (FSY)

## Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Review the existing food safety plan	1.1 Collect data and results from critical control point (CCP) records to verify the food safety system 1.2 Identify major and minor non-conformances to the CCP plan 1.3 Monitor critical control points to confirm performance 1.4 Analyse problem areas and suggest corrective actions and

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	<p>strategies to prevent recurrence of the problem</p> <p>1.5 Document required amendments to the CCP plan</p> <p>1.6 Report recommendations and amendments to appropriate personnel</p>
2. Communicate the requirements of the food safety plan	<p>2.1 Explain food safety principles, food safety procedures and requirements, including regulatory requirements, to the team</p> <p>2.2 Develop commitment to and responsibility for, food safety through work team communication</p> <p>2.3 Define, document and implement procedures to support the food safety plan</p> <p>2.4 Provide training and mentoring to the team to assist implementation</p>
3. Monitor the implementation of the food safety plan	<p>3.1 Monitor team's implementation of the food safety plan</p> <p>3.2 Monitor personal behaviour, including hygiene, housekeeping and use of clothing and equipment, and correct where necessary</p> <p>3.3 Complete and maintain records and reports</p> <p>3.4 Take prompt action to correct non-conformance</p> <p>3.5 Identify and analyse causes of non-conformance</p> <p>3.6 Implement control measures to prevent future non-conformance</p> <p>3.7 Report non-conformance to appropriate personnel</p>
4. Maintain the food safety plan	<p>4.1 Seek feedback from all personnel to identify potential hazards, corrective actions and controls</p> <p>4.2 Identify processes or conditions that could result in breaches of food safety procedures, and take preventive or corrective action</p> <p>4.3 Update corrective action and control procedures to improve food safety</p> <p>4.4 Complete safety plan documentation</p>

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"><li>Interpret food safety program</li><li>Interpret workplace food safety practices and procedures</li></ul>
Oral communication	<ul style="list-style-type: none"><li>Select and use appropriate communication strategies to interact effectively with team and supervisor</li></ul>
Get the work done	<ul style="list-style-type: none"><li>Use problem-solving skills to investigate non-conformance, and revise procedures where necessary</li></ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPFSY4001 Supervise and maintain a food safety plan	FDFFS4001A Supervise and maintain a food safety plan	Updated to meet Standards for Training Packages	Equivalent unit

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## Assessment Requirements for FBPF SY4001 Supervise and maintain a food safety plan

### Modification History

Release	Comments
Release 1	This version released with the FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

### Performance Evidence

An individual demonstrating competency in this unit must satisfy all of the elements and performance criteria of this unit.

There must be evidence that the individual has effectively supervised and maintained a critical control point (CCP) food safety plan in a food processing environment, working with a small team on at least one occasion, including:

- reviewing a food safety plan for a food processing operation
- communicating the requirements of a food safety plan to workers
- demonstrating safe food handling work practices
- completing records and reports related to the implementation of food safety
- responding to non-compliances and taking corrective actions.

### Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- Food Standards Code and relevant food legislation
- current technical and process knowledge required to participate in investigations of food safety/quality hazards, risks and incidents
- common microbiological, physical and chemical hazards to food safety, and related control methods
- the way changes in equipment and/or processing methods can affect food safety hazards and level of risk
- the objectives of a hazard analysis critical control point (HACCP)-based food safety system
- the steps in the development of a CCP-based food safety system
- the steps in the systematic introduction of a HACCP-based food safety system
- workplace recall and traceability procedures

- purpose of the CCP development and review process
- the document controls associated with a procedure change
- the purpose of standard operating procedures and work instructions
- the process of auditing and verifying a CCP-based food safety system
- the importance of role-modelling good personal hygiene, safe food handling and quality procedures.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - skills must be demonstrated in a workplace setting or an environment that accurately represents a real workplace
- resources, equipment and materials:
  - food processing equipment
  - methods and related software systems for collecting data, analysing data and compiling a report
- specifications:
  - workplace operating procedures
  - a CCP-based food safety plan for the food processing workplace
- relationships:
  - interactions with work team and supervisor.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# FBPFSY4002 Supervise and verify supporting programs for food safety

## Modification History

Release	Comments
Release 1	This version released with the FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

## Application

This unit of competency describes the skills and knowledge required to control hazards that are common in a hazard analysis critical control point (HACCP)-based food safety plan by supervising and verifying food safety, health and hygiene support programs.

This unit applies to individuals working in supervisory roles who identify food safety hazards and the need for and development of support programs, supervise the implementation of support programs, and verify compliance with support programs.

Legislative and regulatory requirements apply to food safety and are enforced through state/territory jurisdictions. Users must check with the relevant regulatory authority before delivery.

## Pre-requisite Unit

Nil

## Unit Sector

Food safety (FSY)

## Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Establish the role of food safety support programs in the food safety plan	1.1 Draw up a full description of the product 1.2 Identify the intended use and client group for the product 1.3 Identify all steps in the operation, from primary production,

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	<p>processing, manufacture and distribution to the consumer</p> <p>1.4 Identify hazards that can reasonably be expected to occur at each step</p> <p>1.5 Identify hazard areas that are common to multiple steps in the operation</p> <p>1.6 Define the need for support programs to control identified hazard areas</p>
2. Develop support programs and procedures	<p>2.1 Define the scope of the health and hygiene program</p> <p>2.2 Identify microbiological, physical and chemical hazards associated with supplied unprocessed foods and packaging materials, and develop risk controls and safe work procedures</p> <p>2.3 Identify microbiological, physical and chemical hazards associated with staff handling unpackaged food, and develop risk controls and safe work procedures</p> <p>2.4 Identify microbiological and physical hazards arising from pest infestations, and develop risk controls and safe work procedures</p> <p>2.5 Identify microbiological, physical and chemical hazards associated with using the premises and the equipment in them, and develop risk controls and safe work procedures</p> <p>2.6 Identify chemical hazards associated with the use of cleaning chemicals, and develop risk controls and safe work procedures</p>
3. Document and communicate the requirements of support programs as part of the food safety plan	<p>3.1 Define work performance and establish critical limits for support programs where appropriate</p> <p>3.2 Explain food safety support program requirements to the team, including regulatory requirements</p> <p>3.3 Develop team commitment to, and responsibility for, food safety support programs</p> <p>3.4 Provide induction, training and mentoring to the team to assist implementation of food safety support programs</p> <p>3.5 Communicate support program requirements and procedures to management and staff through documented procedures, directions and signage</p>
4. Monitor the implementation of support programs within	<p>4.1 Monitor and correct personal behaviour, including hygiene, housekeeping and use of clothing and equipment where necessary</p>

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
the food safety plan	4.2 Monitor critical control points to confirm performance 4.3 Check records for completion and accuracy 4.4 Analyse problem areas using appropriate quality improvement tools and techniques 4.5 Identify processes or conditions that could result in breaches of food safety procedures, and take preventive or corrective action
5. Verify compliance with support programs in a food safety plan and address non-compliances	5.1 Verify compliance of the food processing operation for support programs by workplace observation and analysis of records, supported by product testing, if required 5.2 Identify and analyse causes of non-conformance 5.3 Report non-conformance to supervisor 5.4 Update corrective action and control procedures to improve food safety 5.5 Document required amendments to the HACCP plan

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"> <li>Accurately interpret food safety program and workplace food safety documents and procedures</li> </ul>
Oral communication	<ul style="list-style-type: none"> <li>Interact effectively with work team</li> </ul>
Get the work done	<ul style="list-style-type: none"> <li>Use problem-solving skills to respond to situations where hazards may not be effectively controlled</li> </ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
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FBPFSY4002 Supervise and verify supporting programs for food safety	FDFFS4002A Supervise and verify supporting programs for food safety	Updated to meet Standards for Training Packages  Missing from unit mapping: Changes to Performance Criteria to clarify intent	Equivalent unit
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## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# Assessment Requirements for FBPF SY4002 Supervise and verify supporting programs for food safety

## Modification History

Release	Comments
Release 1	This version released with the FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

## Performance Evidence

An individual demonstrating competency in this unit must satisfy all of the elements and performance criteria of this unit.

There must be evidence that the individual has effectively developed, implemented, supervised and verified a minimum of one food safety support program with a small team, in a food processing environment, including:

- implementing procedures for food safety support programs
- communicating the requirements of food safety support programs to workers
- demonstrating and providing leadership in safe food handling and hygienic work practices
- monitoring compliance with food safety support program requirements
- completing records and reports related to the implementation of food safety support programs
- responding to non-compliances in support programs, and taking corrective action.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- current technical and process knowledge required to participate in investigations of food safety/quality hazards, risks and incidents
- common microbiological, physical and chemical hazards to food safety, and related control methods
- the way changes in equipment and/or processing methods can affect food safety hazards and level of risk
- regulatory requirements relating to approved supplier, staff health and hygiene, pest control, cleaning and sanitation, and chemical use programs
- objectives of a HACCP-based food safety system
- steps in the development of a CCP-based food safety system

- steps in the systematic introduction of a CCP-based food safety system
- workplace recall and traceability procedures
- purpose of the CCP development and review process
- purpose, scope and development of procedures for:
  - approved supplier support programs
  - staff health and hygiene support programs
  - pest control support programs
  - cleaning and sanitation support programs
  - chemical use and storage support programs
- document controls associated with a procedure change
- process of auditing and verifying support programs in a HACCP-based food safety system
- health and safety in the workplace, regulatory and workplace requirements.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - skills must be demonstrated in a workplace setting or an environment that accurately represents a real workplace
- resources, equipment and materials:
  - methods and related software systems, as required, for collecting data, analysing data and compiling into a report
- specifications:
  - production process and related equipment, manufacturers' advice and operating procedures
  - a HACCP-based food safety plan for the food processing workplace
- relationships:
  - interactions with work team.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## FBPFSY5001 Develop a HACCP-based food safety plan

### Modification History

Release	Comments
Release 1	This version released with the FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

### Application

This unit of competency describes the skills and knowledge required to develop a hazard analysis critical control point (HACCP)-based food safety plan and to oversee its implementation and monitoring.

This unit applies to individuals who develop HACCP-based food safety plans in a workplace setting.

Legislative and regulatory requirements apply to food safety and are enforced through state/territory jurisdictions. Users must check with the relevant regulatory authority before delivery.

### Pre-requisite Unit

Nil

### Unit Sector

Food safety (FSY)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Describe the product, and scope the food safety plan	1.1 Obtain the appropriate product-specific knowledge and expertise 1.2 Specify the segment of the food chain and processes involved 1.3 Identify the scope of the HACCP plan and specify the class of hazards 1.4 Draw up a full description of the product

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	1.5 Identify the intended use and client group for the product
2. Construct a flow diagram of production and confirm its applicability	2.1 Include all steps in the operation, from primary production, processing, manufacture and distribution to the consumer 2.2 Use standard symbols and nomenclature to describe the processes and steps in the operation as a flow diagram 2.3 Specify the steps preceding and following a new operation 2.4 Validate the flow diagram against the operation at all stages of production
3. Analyse all potential hazards for each step and consider control measures	3.1 Identify hazards that can reasonably be expected to occur at each step 3.2 Analyse hazards and identify the risks posed to the production of safe food 3.3 Consider control measures for each hazard
4. Determine critical control points and the critical limits for each	4.1 Follow a process of decision-making to determine critical control points 4.2 Check hazards at each critical control point to ensure a control measure can be put in place 4.3 Modify the product or process where control measures are not available to allow a control measure at another stage 4.4 Specify critical limits for each critical control point that are either measured or sensory
5. Establish a monitoring system for each critical control point	5.1 Establish appropriate monitoring methods for each critical control point 5.2 Design monitoring methods to indicate the critical limit has been reached or is trending towards it 5.3 Monitor frequently to ensure that the critical control point is in control 5.4 Make adjustments on the basis of the monitoring of critical limits to prevent deviation and hazards occurring
6. Establish and record corrective actions and verification procedures	6.1 Design specific corrective actions to deal with deviations in the critical control point as they occur 6.2 Document procedures for treating or disposing of product for occasions when critical limits are exceeded

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	6.3 Develop verification procedures 6.4 Carry out verification to ensure the HACCP system is working effectively
7. Establish documentation and recordkeeping requirements	7.1 Document all HACCP procedures 7.2 Maintain records, including the collection of continuous monitoring data if required 7.3 Access records to determine that procedures in place are maintaining critical limits at each critical control point 7.4 Access HACCP procedures and review as part of continuous improvement 7.5 Design food safety systems and documentation to meet the requirements of auditing standards

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Numeracy	<ul style="list-style-type: none"> <li>Measure and record non-conformance with specifications and food safety program</li> </ul>
Navigate the world of work	<ul style="list-style-type: none"> <li>Apply knowledge of regulations and policies relevant to workplace HACCP-based food safety program</li> <li>Monitor adherence to legal and regulatory standards and responsibilities for self and others</li> </ul>
Get the work done	<ul style="list-style-type: none"> <li>Devise and implement solutions for the development of a HACCP-based food safety plan, including a system for ongoing monitoring and review</li> <li>Use problem-solving skills to respond to situations where hazard may not be effectively controlled</li> </ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPFSY5001 Develop a HACCP-based food safety plan	FDFFS5001A Develop a HACCP-based food safety plan	Updated to meet Standards for Training Packages  Prerequisite removed  Changes to Performance Criteria to clarify intent	Equivalent unit

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# Assessment Requirements for FBPF SY5001 Develop a HACCP-based food safety plan

## Modification History

Release	Comments
Release 1	This version released with the FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

## Performance Evidence

An individual demonstrating competency in this unit must satisfy all of the elements and performance criteria of this unit.

There must be evidence that the individual has developed, implemented and monitored a minimum of one effective hazard analysis critical control point (HACCP)-based food safety plan that incorporates a minimum of four critical control points.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- the purpose and intent of food safety legislation, including Food Standards Code
- product traceability
- allergen labelling
- purpose and responsibilities for maintaining records as required by legislation and workplace procedures
- roles and responsibilities for development and maintenance of the food safety program, including internal and external auditors, and authorised officers
- seven basic steps of HACCP: conduct a hazard analysis, identify critical control points, establish critical limits, establish monitoring procedures, establish corrective actions, establish verification procedures, establish recordkeeping procedure
- procedures for establishing the critical limits and monitoring data or processes
- techniques used to map operations and analyse food safety requirements, such as the preparation of flow charts, hazard analysis charts and tables, and data analysis reports
- raw materials, ingredients and finished product composition and characteristics, and related handling and storage requirements
- food processing methods used in the workplace or work area and their effect on food safety
- sources of technical expertise on food safety requirements



- the role of consultation in the development, implementation and ongoing maintenance of the food safety program
- documentation and recording requirements to support communication and monitoring of the food safety program, including procedures for maintaining and updating relevant documents, such as operating procedures
- main types of food safety hazards/contamination likely to occur given the type of product and processing methods used, including allergens
- conditions required for bacterial food poisoning to occur, such as aw (water activity), pH, composition, time and temperature, as relevant to food handled
- acceptable control methods for the hazards identified, and required corrective action when control requirements are not met
- typical support programs, such as cleaning schedules, pest control, stock rotation, and personal hygiene, and how they can be used as part of a food safety program
- validation and verification processes, and techniques and responsibilities.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - skills must be demonstrated in a workplace setting or an environment that accurately represents a real workplace
- resources, equipment and materials:
  - a food processing operation with a defined product and consumer
  - resources and equipment to set and monitor critical limits
  - reporting/recording system
- specifications:
  - workplace food safety program documentation
  - organisational policies on food safety and risk management
  - procedures for developing or modifying specifications and other advice on food safety requirements.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## FBPGPS2001 Operate a bleaching process

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package version 1.0.

### Application

This unit of competency describes the skills and knowledge required to set up, operate, adjust and shut down a bleaching process to remove colour and impurities from partially refined oil.

This unit applies to individuals who apply basic operating principles to the operation and monitoring of bleaching equipment and processes in an edible oils production environment. Processes may be batch or continuous, and apply to single or multiple product types.

All work must be carried out to comply with workplace procedures, in accordance with State/Territory work health and safety, and food safety regulations, legislation and standards that apply to the workplace.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

### Pre-requisite Unit

Nil

### Unit Sector

Grocery and product supplies (GPS)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare the bleaching equipment and process for operation	1.1 Confirm materials are available according to operating requirements 1.2 Identify and confirm cleaning and maintenance requirements have

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	<p>been met</p> <p>1.3 Fit and adjust machine components and related attachments according to operating requirements</p> <p>1.4 Enter processing or operating parameters to meet safety and productions requirements</p> <p>1.5 Check and adjust equipment performance as required</p> <p>1.6 Conduct pre-start checks according to workplace requirements</p>
2. Operate and monitor the bleaching process	<p>2.1 Start up and operate the bleaching process according to work health and safety and operating procedures</p> <p>2.2 Monitor equipment to identify variation in operating conditions</p> <p>2.3 Identify variation in equipment operation and report maintenance requirements</p> <p>2.4 Confirm that specifications are met at each stage</p> <p>2.5 Identify, rectify or report out-of-specification product and process outcomes</p> <p>2.6 Maintain the work area according to workplace guidelines</p> <p>2.7 Enter workplace records in required format</p>
3. Shut down the bleaching process	<p>3.1 Identify the appropriate shutdown procedure</p> <p>3.2 Shut down the process safely according to operating procedures</p> <p>3.3 Identify and report maintenance requirements according to workplace reporting requirements</p>

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"> <li>Read and interpret standard operating procedures for the bleaching process</li> </ul>
Writing	<ul style="list-style-type: none"> <li>Complete records according to workplace guidelines on paper-based and electronic media</li> </ul>

Skill	Description
Numeracy	<ul style="list-style-type: none"> <li>Monitor control points for time and temperature measurements</li> </ul>
Navigate the world of work	<ul style="list-style-type: none"> <li>Apply workplace procedures to own role and responsibilities</li> <li>Understand main tasks, responsibilities and boundaries of own role, including use of personal protective clothing and equipment, housekeeping standards and environmental care requirements</li> <li>Maintain a clean and hazard-free work area</li> <li>Maintain hygiene standards</li> </ul>
Interact with others	<ul style="list-style-type: none"> <li>Report operational and safety information to relevant personnel using required communication method</li> </ul>
Get the work done	<ul style="list-style-type: none"> <li>Solve routine problems according to workplace guidelines and using experience of past solutions</li> </ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPGPS2001 Operate a bleaching process	FDFGPS2001A Operate a bleaching process	Updated to meet Standards for Training Packages	Equivalent unit

## Links

Companion Volumes, including Implementation Guides, are available at VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# Assessment Requirements for FBPGPS2001 Operate a bleaching process

## Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package version 1.0.

## Performance Evidence

An individual demonstrating competency must satisfy all the elements and performance criteria in this unit.

There must be evidence that, on at least one occasion, the individual has:

- conducted pre-start checks on machinery used for bleaching oil products
- started, operated, monitored and adjusted process equipment used for bleaching oil products to achieve required quality outcomes
- taken corrective action in response to typical faults and inconsistencies
- completed workplace records in required format
- applied safe work practices and identified work health and safety hazards and controls
- safely shut down equipment
- applied food safety procedures to work practices.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- purpose and basic principles of the bleaching process
- basic operating principles of equipment, including:
  - main equipment components
  - status and purpose of guards
  - equipment operating capacities and applications
  - the purpose and location of sensors and related feedback instrumentation
- services required for a bleaching process and action to take if services are not available
- the flow of the bleaching process and the effect of outputs on downstream processes
- quality characteristics to be achieved by the bleaching process
- quality requirements of materials and effect of variation in oil quality on bleaching process performance

- operating requirements and parameters and corrective action required where operation is outside specified operating parameters
- typical equipment faults and related causes, including:
  - signs and symptoms of faulty equipment
  - early warning signs of potential problems
- methods used to monitor the bleaching process, including inspecting, measuring and testing as required by the process
- inspection or test points (control points) in the bleaching process and the related procedures and recording requirements
- contamination/food safety risks associated with the bleaching process and related control measures
- common causes of variation and corrective action required
- work health and safety hazards and controls, including the limitations of protective clothing and equipment relevant to the work process
- requirements of different shutdowns as appropriate to the bleaching process and workplace production requirements, including:
  - emergency and routine shutdowns
  - procedures to follow in the event of a power outage
- isolation, lock out and tag out procedures and responsibilities
- procedures and responsibility for reporting production and performance information
- environmental issues and controls relevant to the bleaching process, including waste/rework collection and handling procedures related to the process
- basic operating principles of process control, where relevant, including the relationship between control panels and systems and the physical equipment
- routine maintenance procedures for bleaching equipment
- cleaning and sanitation procedures for bleaching equipment.

## Assessment Conditions

Assessment of this unit of competency must take place under the following conditions:

- physical conditions:
  - a workplace or an environment that accurately represents workplace conditions
- resources, equipment and materials:
  - bleaching process and related equipment and services
  - oil, catalyst and filter aid as required by the bleaching process used
  - personal protective clothing and equipment
  - sampling schedules and test procedures and equipment
  - cleaning procedures, materials and equipment
- specifications:
  - work procedures, including advice on safe work practices, food safety, quality and environmental requirements
  - information on equipment capacity and operating parameters

- production schedule/batch instructions
- specifications, control points and processing parameters
- documentation and recording requirements and procedures
- relationships:
  - interactions with team members and supervisors.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volumes, including Implementation Guides, are available at VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## FBPGPS2002 Operate a complecting process

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package version 1.0.

### Application

This unit of competency describes the skills and knowledge required to set up, operate, adjust and shut down a complector used to produce pastry margarine.

This unit applies to individuals who apply basic operating principles to the operation and monitoring of complecting equipment in an edible oils production environment.

All work must be carried out to comply with workplace procedures, in accordance with State/Territory work health and safety, and food safety regulations, legislation and standards that apply to the workplace.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

### Pre-requisite Unit

Nil

### Unit Sector

Grocery and Product Supplies (GPS)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare the complector and related equipment for operation	1.1 Confirm materials are available for use in the complector 1.2 Identify and confirm cleaning and maintenance requirements are met 1.3 Fit and adjust machine components and related attachments



Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	1.4 Enter processing or operating parameters according to safety and production requirements 1.5 Check and adjust equipment performance to ensure optimum performance 1.6 Conduct pre-start checks according to operator instructions
2. Operate and monitor the complector process	2.1 Start up and operate the equipment according to work health and safety and operating procedures 2.2 Monitor equipment to identify variation in operating conditions 2.3 Identify variation in equipment operation and report maintenance requirements 2.4 Confirm that specifications are met at each stage 2.5 Identify, rectify or report out-of-specification product and process outcomes 2.6 Maintain the work area according to workplace guidelines 2.7 Enter workplace records in required format
3. Shut down the complector process	3.1 Identify the appropriate shutdown procedure 3.2 Shut down the process safely according to operating procedures 3.3 Identify and report maintenance requirements

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"> <li>Read and interpret standard operating procedures for the complecting process</li> </ul>
Writing	<ul style="list-style-type: none"> <li>Complete records according to workplace guidelines on paper-based and electronic media</li> </ul>
Numeracy	<ul style="list-style-type: none"> <li>Monitor control points for time and temperature measurements</li> </ul>
Navigate the world of	<ul style="list-style-type: none"> <li>Apply workplace procedures to own role and responsibilities</li> </ul>

Skill	Description
work	<ul style="list-style-type: none"><li>• Understand main tasks, responsibilities and boundaries of own role, including use of personal protective clothing and equipment, housekeeping standards and environmental care requirements</li><li>• Maintain a clean and hazard-free work area</li><li>• Maintain hygiene standards</li></ul>
Interact with others	<ul style="list-style-type: none"><li>• Report operational and safety information to relevant personnel using required communication method</li></ul>
Get the work done	<ul style="list-style-type: none"><li>• Solve routine problems according to workplace guidelines and using experience of past solutions</li></ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPGPS2002 Operate a complecting process	FDFGPS2002A Operate a complecting process	Updated to meet Standards for Training Packages	Equivalent unit

## Links

Companion Volumes, including Implementation Guides, are available at VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## Assessment Requirements for FBPGPS2002 Operate a complecting process

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package version 1.0.

### Performance Evidence

An individual demonstrating competency must satisfy all of the elements and performance criteria in this unit.

There must be evidence that, on at least one occasion, the individual has:

- conducted pre-start checks on machinery used to produce pastry margarine
- started, operated, monitored and adjusted complecting process equipment to achieve required quality outcomes
- taken corrective action in response to typical faults and inconsistencies
- completed workplace records in required format
- applied safe work practices and identified work health and safety hazards and controls
- safely shut down complecting equipment
- applied food safety procedures to work practices.

### Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- principles of preparing pastry margarine using a complector, including:
  - a basic understanding of crystallisation
  - the relationship between stages of crystal formation, work input and temperature
  - the purpose and requirements of a holding stage
- basic operating principles of equipment, including:
  - main equipment components
  - status and purpose of guards
  - equipment operating capacities and applications
  - the purpose and location of sensors and related feedback instrumentation
- services required for a complecting process, and action to take if services are not available
- the flow of this process and the effect of outputs on downstream processes

- quality characteristics to be achieved by the final pastry margarine
- variations of quality characteristics according to types of pastry margarine produced
- quality requirements of flake used and effect of variation on process performance
- operating requirements and parameters and corrective action required where operation is outside specified operating parameters
- typical equipment faults and related causes, including:
  - signs and symptoms of faulty equipment
  - early warning signs of potential problems
- methods used to monitor the production process, including inspecting, measuring and testing as required by the process
- inspection or test points (control points) in the process and the related procedures and recording requirements
- contamination and food safety risks associated with the process and related control measures
- common causes of variation and corrective action required
- work health and safety hazards and controls
- requirements of different shutdowns as appropriate to the process and workplace production requirements, including:
  - emergency and routine shutdowns
  - procedures to follow in the event of a power outage
- isolation, lock out and tag out procedures and responsibilities
- procedures and responsibility for reporting production and performance information
- environmental issues and controls relevant to the process, including waste/rework collection, and handling procedures related to the process and procedures for containing spills
- basic operating principles of process control, where relevant, including the relationship between control panels and systems and the physical equipment
- operating procedures for related packaging equipment
- routine maintenance procedures for complectors
- cleaning and sanitation procedures for complectors.

## Assessment Conditions

Assessment of this unit of competency must take place under the following conditions:

- physical conditions:
  - a workplace or an environment that accurately represents workplace conditions
- resources, equipment and materials:
  - complector and related equipment and services
  - flake to be processed
  - personal protective clothing and equipment
  - sampling schedules and test procedures and equipment
  - cleaning procedures, materials and equipment

- specifications:
  - work procedures, including advice on safe work practices, food safety, quality and environmental requirements
  - information on equipment capacity and operating parameters
  - production schedule/batch instructions
  - specifications, control points and processing parameters
  - documentation and recording requirements and procedures
- relationships:
  - interactions with team members and supervisors.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volumes, including Implementation Guides, are available at VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## FBPGPS2003 Operate a deodorising process

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package version 1.0.

### Application

This unit of competency describes the skills and knowledge required to set up, operate, adjust and shut down a deodorising process to remove the disagreeable flavours and odours from product.

This unit applies to individuals who apply basic operating principles to the operation and monitoring of deodorising equipment and processes, in an edible oils production environment. Processes may be batch or continuous, and apply to single or multiple product types.

All work must be carried out to comply with workplace procedures, in accordance with State/Territory work health and safety, and food safety regulations, legislation and standards that apply to the workplace.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

### Pre-requisite Unit

Nil

### Unit Sector

Grocery and product supplies (GPS)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare the deodorising and related equipment for operation	1.1 Ensure oil stock and emulsion are available to meet production requirements 1.2 Identify and confirm cleaning and maintenance requirements have

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	<p>been met</p> <p>1.3 Fit and adjust machine components and related attachments</p> <p>1.4 Enter processing or operating parameters to meet safety and production requirements</p> <p>1.5 Check and adjust equipment to ensure optimum performance</p> <p>1.6 Conduct pre-start checks according to operator instructions</p>
2. Operate and monitor the deodorising process	<p>2.1 Start up and operate the deodorising process according work health and safety and operating procedures</p> <p>2.2 Monitor equipment to identify variation in operating conditions</p> <p>2.3 Identify variation in equipment operation and report maintenance requirements</p> <p>2.4 Confirm that specifications are met at each stage according to production specifications</p> <p>2.5 Identify, rectify or report out-of-specification product or process outcomes</p> <p>2.6 Maintain the work area according to workplace guidelines</p> <p>2.7 Enter workplace records in required format</p>
3. Shut down the deodorising process	<p>3.1 Identify the appropriate shutdown procedure</p> <p>3.2 Shut down the process safely according to operating procedures</p> <p>3.3 Identify and report maintenance requirements</p>

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"> <li>Read and interpret standard operating procedures for the deodorising process</li> </ul>
Writing	<ul style="list-style-type: none"> <li>Complete records according to workplace guidelines on paper-based and electronic media</li> </ul>

Skill	Description
Numeracy	<ul style="list-style-type: none"><li>• Monitor control points for time and temperature measurements, vacuum pressure and steam flow</li></ul>
Navigate the world of work	<ul style="list-style-type: none"><li>• Apply workplace procedures to own role and responsibilities</li><li>• Understand main tasks, responsibilities and boundaries of own role, including use of personal protective clothing and equipment, housekeeping standards and environmental care requirements</li><li>• Maintain a clean and hazard-free work area</li><li>• Maintain hygiene standards</li></ul>
Interact with others	<ul style="list-style-type: none"><li>• Report operational and safety information to relevant personnel using required communication method</li></ul>
Get the work done	<ul style="list-style-type: none"><li>• Solve routine problems according to workplace guidelines and using experience of past solutions</li></ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPGPS2003 Operate a deodorising process	FDFGPS2003A Operate a deodorising process	Updated to meet Standards for Training Packages	Equivalent unit

## Links

Companion Volumes, including Implementation Guides, are available at VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>



# Assessment Requirements for FBPGPS2003 Operate a deodorising process

## Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package version 1.0.

## Performance Evidence

An individual demonstrating competency must satisfy all of the elements and performance criteria in this unit.

There must be evidence that, on at least one occasion, the individual has:

- conducted pre-start checks on machinery used for deodorising
- started, operated, monitored and adjusted deodorising process equipment to remove disagreeable flavours and odours to achieve required quality outcomes
- taken corrective action in response to typical faults and inconsistencies
- completed workplace records in required format
- applied safe work practices and identified work health and safety hazards and controls
- safely shut down equipment
- applied food safety procedures to work practices.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- purpose and basic principles of the deodorising process
- basic operating principles of equipment, including:
  - main equipment components
  - status and purpose of guards
  - equipment operating capacities and applications
  - the purpose and location of sensors and related feedback instrumentation
- services required for a deodorising process and action to take if services are not available
- the flow of the deodorising process and the effect of outputs on downstream processes
- quality characteristics to be achieved by the deodorising process
- quality requirements of materials and effect of variation in oil quality on deodorising process performance

- operating requirements and parameters and corrective action required where operation is outside specified operating parameters
- typical equipment faults and related causes, including:
  - signs and symptoms of faulty equipment
  - early warning signs of potential problems
- methods used to monitor the deodorising process, including inspecting, measuring and testing as required by the process
- inspection or test points (control points) in the deodorising process and the related procedures and recording requirements
- contamination/food safety risks associated with the deodorising process and related control measures
- common causes of variation and corrective action required
- work health and safety hazards and controls
- requirements of different shutdowns as appropriate to the deodorising process and workplace production requirements, including:
  - emergency and routine shutdowns
  - procedures to follow in the event of a power outage
- isolation, lock out and tag out procedures and responsibilities
- procedures and responsibility for reporting production and performance information
- environmental issues and controls relevant to the deodorising process
- basic operating principles of process control, where relevant, including the relationship between control panels and systems and the physical equipment
- routine maintenance procedures for deodorising equipment
- cleaning and sanitation procedures for deodorising equipment.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - a workplace or an environment that accurately represents workplace conditions
- resources, equipment and materials:
  - deodorising process and related equipment and services
  - oil to be deodorised
  - personal protective clothing and equipment
  - sampling schedules and test procedures and equipment
  - cleaning procedures, materials and equipment
- specifications:
  - work procedures, including advice on safe work practices, food safety, quality and environmental requirements
  - information on equipment capacity and operating parameters
  - production schedule/batch instructions
  - specifications, control points and processing parameters

- documentation and recording requirements and procedures
- relationships:
  - interactions with team members and supervisors.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volumes, including Implementation Guides, are available at VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## FBPGPS2004 Operate a flake preparation process

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package version 1.0.

### Application

This unit of competency describes the skills and knowledge required to prepare the oil and water phases and set up, operate, adjust and shut down the flaking process to prepare pastry margarine for further processing through a complector.

This unit applies to individuals who apply basic operating principles to the operation and monitoring of flake preparation equipment and processes in an edible oils production environment.

All work must be carried out to comply with workplace procedures, in accordance with State/Territory work health and safety, and food safety regulations, legislation and standards that apply to the workplace.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

### Pre-requisite Unit

Nil

### Unit Sector

Grocery and product supplies (GPS)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare the flake preparation and related	1.1 Ensure oil stock and emulsion are available to meet production requirements

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
equipment for operation	1.2 Identify and confirm cleaning and maintenance requirements have been met 1.3 Fit and adjust machine components and related attachments according to operating requirements 1.4 Enter processing or operating parameters to meet safety and production requirements 1.5 Check and adjust equipment performance to ensure optimum performance 1.6 Conduct pre-start checks according to operator instructions
2. Operate and monitor the flake preparation process	2.1 Start up and operate the flake preparation process according to work health and safety and operating procedures 2.2 Monitor equipment to identify variation in operating conditions 2.3 Identify variation in equipment operation and report maintenance requirements 2.4 Confirm that specifications are met at each stage according to production specifications 2.5 Identify, rectify or report out-of-specification product or process outcomes according to workplace procedures 2.6 Maintain the work area according to workplace guidelines 2.7 Enter workplace records in required format
3. Shut down the flake preparation process	3.1 Identify the appropriate shutdown procedure 3.2 Shut down the process safely according to operating procedures 3.3 Identify and report maintenance requirements

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"> <li>Read and interpret standard operating procedures for the flake preparation process</li> </ul>

Skill	Description
Writing	<ul style="list-style-type: none"> <li>Complete records according to workplace guidelines on paper-based and electronic media</li> </ul>
Numeracy	<ul style="list-style-type: none"> <li>Monitor control points for flake and emulsion temperature, drum speed, flake thickness, and moisture and salt levels</li> </ul>
Navigate the world of work	<ul style="list-style-type: none"> <li>Apply workplace procedures to own role and responsibilities</li> <li>Understand main tasks, responsibilities and boundaries of own role, including use of personal protective clothing and equipment, housekeeping standards and environmental care requirements</li> <li>Maintain a clean and hazard-free work area</li> <li>Maintain hygiene standards</li> </ul>
Interact with others	<ul style="list-style-type: none"> <li>Report operational and safety information to relevant personnel using required communication method</li> </ul>
Get the work done	<ul style="list-style-type: none"> <li>Solve routine problems according to workplace guidelines and using experience of past solutions</li> </ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPGPS2004 Operate a flake preparation process	FDFGPS2004A Operate a flake preparation process	Updated to meet Standards for Training Packages	Equivalent unit

## Links

Companion Volumes, including Implementation Guides, are available at VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# Assessment Requirements for FBPGPS2004 Operate a flake preparation process

## Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package version 1.0.

## Performance Evidence

An individual demonstrating competency must satisfy all elements and performance criteria in this unit.

There must be evidence that, on at least one occasion, the individual has:

- conducted pre-start checks on machinery used for flake preparation
- started, operated, monitored and adjusted flake preparation process equipment to achieve required quality outcomes
- taken corrective action in response to typical faults and inconsistencies
- completed workplace records in required format
- applied safe work practices and identified work health and safety hazards and controls
- safely shut down equipment
- applied food safety procedures to work practices.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- purpose and basic principles of the fractionation process, including:
  - a basic understanding of the chemical structure of oil
  - the effect of fractionation on this structure
- basic operating principles of equipment, including:
  - main equipment components
  - status and purpose of guards
  - equipment operating capacities and applications
  - the purpose and location of sensors and related feedback instrumentation
- services required for a flake preparation process and action to take if services are not available
- the flow of the fractionation process and the effect of outputs on downstream processes

- quality characteristics to be achieved by the fractionation process
- quality requirements of oil for fractionation and effect of variation on fractionation process performance
- operating requirements and parameters and corrective action required where operation is outside specified operating parameters
- typical equipment faults and related causes, including:
  - signs and symptoms of faulty equipment
  - early warning signs of potential problems
- methods used to monitor the fractionation process, including inspecting, measuring and testing as required by the process
- inspection or test points (control points) in the fractionation process and the related procedures and recording requirements
- contamination and food safety risks associated with the fractionation process and related control measures
- common causes of variation and corrective action required
- work health and safety hazards and controls
- requirements of different shutdowns as appropriate to the fractionation process and workplace production requirements, including:
  - emergency and routine shutdowns
  - procedures to follow in the event of a power outage
- isolation, lock out and tag out procedures and responsibilities
- procedures and responsibility for reporting production and performance information
- environmental issues and controls relevant to the fractionation process
- basic operating principles of process control, including the relationship between control panels and systems and the physical equipment
- routine maintenance procedures for drum and flaking equipment
- cleaning and sanitation procedures for drum and flaking equipment.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - a workplace or an environment that accurately represents workplace conditions
- resources, equipment and materials:
  - personal protective clothing and equipment
  - oil and water phase preparation equipment and services
  - drum and flaking equipment
  - oil and ingredients
  - sampling schedules and test procedures and equipment
  - cleaning procedures, materials and equipment
- specifications:



- work procedures, including advice on safe work practices, food safety, quality and environmental requirements
- information on equipment capacity and operating parameters
- production schedule/batch instructions
- specifications, control points and processing parameters
- documentation and recording requirements and procedures
- relationships:
  - interactions with team members and supervisors.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volumes, including Implementation Guides, are available at VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## FBPGPS2005 Operate a fractionation process

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package version 1.0.

### Application

This unit of competency describes the skills and knowledge required to set up, operate, adjust and shut down the fractionation process to separate edible oils into two or more liquid and solid parts, each with distinct physical and chemical properties.

This unit applies to individuals who apply basic operating principles to the operation and monitoring of a fractionation process in an edible oils production environment. Processes may be batch or continuous, and apply to single or multiple product types.

All work must be carried out to comply with workplace procedures, in accordance with State/Territory work health and safety, and food safety regulations, legislation and standards that apply to the workplace.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

### Pre-requisite Unit

Nil

### Unit Sector

Grocery and product supplies (GPS)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare the fractionation and related equipment for operation	1.1 Ensure oil stock and emulsion are available according to production requirements 1.2 Identify and confirm cleaning and maintenance requirements have

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	<p>been met</p> <p>1.3 Fit and adjust machine components and related attachments according to operating requirements</p> <p>1.4 Enter processing or operating parameters to meet safety and production requirements</p> <p>1.5 Check and adjust equipment performance to ensure optimum performance</p> <p>1.6 Conduct pre-start checks according to operator instructions</p>
2. Operate and monitor the fractionation process	<p>2.1 Start up and operate the fractionation process according to work health and safety and operating procedures</p> <p>2.2 Monitor equipment to identify variation in operating conditions</p> <p>2.3 Identify variation in equipment operation and report maintenance requirements</p> <p>2.4 Confirm that specifications are met at each stage according to production procedures</p> <p>2.5 Identify, rectify or report out-of-specification product and process outcomes according to workplace procedures</p> <p>2.6 Maintain the work area according to workplace guidelines</p> <p>2.7 Enter workplace records in required format</p>
3. Shut down the fractionation process	<p>3.1 Identify the appropriate shutdown procedure</p> <p>3.2 Shut down the process safely according to operating procedures</p> <p>3.3 Identify and report maintenance requirements</p>

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"> <li>Read and interpret standard operating procedures for the fractionation process</li> </ul>

Skill	Description
Writing	<ul style="list-style-type: none"><li>• Complete records according to workplace guidelines on paper-based and electronic media</li></ul>
Numeracy	<ul style="list-style-type: none"><li>• Monitor control points for temperature and flow rates</li><li>• Monitor supply and flow of materials to and from the fractionation process</li></ul>
Navigate the world of work	<ul style="list-style-type: none"><li>• Apply workplace procedures to own role and responsibilities</li><li>• Understand main tasks, responsibilities and boundaries of own role, including use of personal protective clothing and equipment, housekeeping standards and environmental care requirements</li><li>• Maintain a clean and hazard-free work area</li><li>• Maintain hygiene standards</li></ul>
Interact with others	<ul style="list-style-type: none"><li>• Report operational and safety information to relevant personnel using required communication method</li></ul>
Get the work done	<ul style="list-style-type: none"><li>• Solve routine problems according to workplace guidelines and using experience of past solutions</li></ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPGPS2005 Operate a fractionation process	FDFGPS2005A Operate a fractionation process	Updated to meet Standards for Training Packages	Equivalent unit

## Links

Companion Volumes, including Implementation Guides, are available at VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# Assessment Requirements for FBPGPS2005 Operate a fractionation process

## Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package version 1.0.

## Performance Evidence

An individual demonstrating competency must satisfy all of the elements and performance criteria in this unit.

There must be evidence that, on at least one occasion, the individual has:

- conducted pre-start checks on machinery used for fractionation
- started, operated, monitored and adjusted fractionation process equipment to separate edible oils into two or more liquid and solid parts, each with distinct physical and chemical properties to achieve required quality outcomes
- taken corrective action in response to typical faults and inconsistencies
- completed workplace records in required format
- applied safe work practices and identified work health and safety hazards and controls
- safely shut down equipment
- applied food safety procedures to work practices.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- purpose and basic principles of the fractionation process, including a basic understanding of the chemical structure of oil and the effect of fractionation on this structure
- basic operating principles of equipment, including:
  - main equipment components
  - status and purpose of guards
  - equipment operating capacities and applications
  - the purpose and location of sensors and related feedback instrumentation
- services required for a fractionation process and action to take if services are not available
- the flow of the fractionation process and the effect of outputs on downstream processes
- quality characteristics to be achieved by the fractionation process

- quality requirements of oil for fractionation and effect of variation on fractionation process performance
- operating requirements and parameters and corrective action required where operation is outside specified operating parameters
- typical equipment faults and related causes, including:
  - signs and symptoms of faulty equipment
  - early warning signs of potential problems
- methods used to monitor the fractionation process, including inspecting, measuring and testing as required by the process
- inspection or test points (control points) in the fractionation process and the related procedures and recording requirements
- contamination and food safety risks associated with the fractionation process and related control measures
- common causes of variation and corrective action required
- work health and safety hazards and controls
- requirements of different shutdowns as appropriate to the fractionation process and workplace production requirements, including emergency and routine shutdowns and procedures to follow in the event of a power outage
- isolation, lock out and tag out procedures and responsibilities
- procedures and responsibility for reporting production and performance information
- environmental issues and controls relevant to the fractionation process
- basic operating principles of process control, including the relationship between control panels and systems and the physical equipment
- routine maintenance procedures for fractionation equipment
- cleaning and sanitation procedures for fractionation equipment.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - a workplace or an environment that accurately represents workplace conditions
- resources, equipment and materials:
  - personal protective clothing and equipment
  - fractionation process and related equipment and services
  - oils and chemicals required for the fractionation process
  - sampling schedules and test procedures and equipment
  - cleaning procedures, materials and equipment
- specifications:
  - work procedures, including advice on safe work practices, food safety, quality and environmental requirements
  - information on equipment capacity and operating parameters
  - production schedule/batch instructions

- specifications, control points and processing parameters
- documentation and recording requirements and procedures
- relationships:
  - interactions with team members and supervisors.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volumes, including Implementation Guides, are available at VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## FBPGPS2006 Operate a hydrogenation process

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package version 1.0.

### Application

This unit of competency describes the skills and knowledge required to set up, operate, adjust and shut down a hydrogenation process to improve the hardness, viscosity, flavour and shelf-life of oils.

This unit applies to individuals who apply basic operating principles to the operation and monitoring of a hydrogenation process in an edible oils production environment. Processes may be batch or continuous, and apply to single or multiple product types.

All work must be carried out to comply with workplace procedures, in accordance with State/Territory work health and safety, and food safety regulations, legislation and standards that apply to the workplace.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

### Pre-requisite Unit

Nil

### Unit Sector

Grocery and product supplies (GPS)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare the hydrogenation and related equipment for	1.1 Ensure oil stock and emulsion are available according to production requirements 1.2 Identify and confirm cleaning and maintenance requirements have



Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
operation	<p>been met</p> <p>1.3 Enter processing or operating parameters to meet safety and production requirements</p> <p>1.4 Check and adjust equipment performance to ensure optimum performance</p> <p>1.5 Conduct pre-start checks according to operator instructions</p>
2. Operate and monitor the hydrogenation process	<p>2.1 Start up and operate the hydrogenation process according to work health and safety and operating procedures</p> <p>2.2 Monitor equipment to identify variation in operating conditions</p> <p>2.3 Identify variation in equipment operation and report maintenance requirements</p> <p>2.4 Confirm that specifications are met at each stage according to production specifications</p> <p>2.5 Identify, rectify or report out-of-specification product or process outcomes according to workplace procedures</p> <p>2.6 Maintain the work area according to workplace guidelines</p> <p>2.7 Enter workplace records in required format</p>
3. Shut down the hydrogenation process	<p>3.1 Identify the appropriate shutdown procedure</p> <p>3.2 Shut down the process safely according to operating procedures</p> <p>3.3 Identify and report maintenance requirements</p>

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"> <li>Read and interpret standard operating procedures for the hydrogenation process</li> </ul>
Writing	<ul style="list-style-type: none"> <li>Complete records according to workplace guidelines on paper-based and electronic media</li> </ul>

Skill	Description
Numeracy	<ul style="list-style-type: none"> <li>Monitor control points for oil temperature, vacuum pressure, flow rates and hydrogenation quantity and agitation</li> </ul>
Navigate the world of work	<ul style="list-style-type: none"> <li>Apply workplace procedures to own role and responsibilities</li> <li>Understand main tasks, responsibilities and boundaries of own role, including use of personal protective clothing and equipment, housekeeping standards and environmental care requirements</li> <li>Maintain a clean and hazard-free work area</li> <li>Maintain hygiene standards</li> </ul>
Interact with others	<ul style="list-style-type: none"> <li>Report operational and safety information to relevant personnel using required communication method</li> </ul>
Get the work done	<ul style="list-style-type: none"> <li>Solve routine problems according to workplace guidelines and using experience of past solutions</li> </ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPGPS2006 Operate a hydrogenation process	FDFGPS2006A Operate a hydrogenation process	Updated to meet Standards for Training Packages	Equivalent unit

## Links

Companion Volumes, including Implementation Guides, are available at VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# Assessment Requirements for FBPGPS2006 Operate a hydrogenation process

## Modification History

Release	Comments
Release 1	This version released with FBPGPS2006 Food, Beverage and Pharmaceutical Training Package version 1.0.

## Performance Evidence

An individual demonstrating competency must satisfy all of the elements and performance criteria in this unit.

There must be evidence that, on at least one occasion, the individual has:

- conducted pre-start checks on machinery used for hydrogenation
- started, operated, monitored and adjusted hydrogenation process equipment to improve the hardness, viscosity, flavour and shelf-life of oils to achieve required quality outcomes
- taken corrective action in response to typical faults and inconsistencies
- completed workplace records in required format
- applied safe work practices and identified work health and safety hazards and controls
- safely shut down equipment
- applied food safety procedures to work practices.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- purpose and basic principles of the hydrogenation process, including a basic understanding of the chemical structure of oil and the effect of hydrogenation on this structure
- basic operating principles of equipment, including:
  - main equipment components
  - status and purpose of guards
  - equipment operating capacities and applications
  - the purpose and location of sensors and related feedback instrumentation
- services required for a hydrogenation process and action to take if services are not available
- the flow of the hydrogenation process and the effect of outputs on downstream edible oils and fats processes

- quality characteristics to be achieved by the hydrogenation process
- quality requirements of oil, catalyst and filter aid as used, and effect of variation on hydrogenation process performance
- operating requirements and parameters, and corrective action required where operation is outside specified operating parameters
- typical equipment faults and related causes, including:
  - signs and symptoms of faulty equipment
  - early warning signs of potential problems
- methods used to monitor the hydrogenation process, including inspecting, measuring and testing as required by the process
- inspection or test points (control points) in the hydrogenation process, and related procedures and recording requirements
- contamination and food safety risks associated with the hydrogenation process and related control measures
- common causes of variation and corrective action required
- work health and safety hazards and controls, including an understanding of the hazards associated with the use of hydrogen
- requirements of different shutdowns as appropriate to the hydrogenation process and workplace production requirements, including:
  - emergency and routine shutdowns
  - procedures to follow in the event of a power outage
- isolation, lock out and tag out procedures and responsibilities
- procedures and responsibility for reporting production and performance information
- environmental issues and controls relevant to the hydrogenation process, including waste/rework collection and handling procedures related to the process
- routine maintenance procedures for hydrogenation equipment
- cleaning and sanitation procedures for hydrogenation equipment.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - a workplace or an environment that accurately represents workplace conditions
- resources, equipment and materials:
  - personal protective clothing and equipment
  - hydrogenation process and related equipment and services
  - oil, catalyst and filter aid as required for the hydrogenation process
  - sampling schedules, and test procedures and equipment
  - cleaning procedures, materials and equipment
- specifications:
  - work procedures, including advice on safe work practices, food safety, quality and environmental requirements

- information on equipment capacity and operating parameters
- production schedule/batch instructions
- specifications, control points and processing parameters
- documentation and recording requirements and procedures
- relationships:
  - interactions with team members and supervisors.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volumes, including Implementation Guides, are available at VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## FBPGPS2007 Operate an interesterification process

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package version 1.0.

### Application

This unit of competency describes the skills and knowledge required to set up, operate, adjust and shut down an interesterification process to rearrange the chemical composition of oil molecules.

This unit applies to individuals who apply basic operating principles to the operation and monitoring of an interesterification process in an edible oils production environment. Processes may be batch or continuous, and apply to single or multiple product types.

All work must be carried out to comply with workplace procedures, in accordance with State/Territory work health and safety, and food safety regulations, legislation and standards that apply to the workplace.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

### Pre-requisite Unit

Nil

### Unit Sector

Grocery and product supplies (GPS)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare the interesterification equipment and process	1.1 Ensure materials are available according to operating requirements 1.2 Identify and confirm cleaning and maintenance requirements have

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
for operation	<p>been met</p> <p>1.3 Enter processing or operating parameters to meet safety and production requirements</p> <p>1.4 Check and adjust equipment performance to ensure optimum performance</p> <p>1.5 Conduct pre-start checks according to operator instructions</p>
2. Operate and monitor the interesterification process	<p>2.1 Start up and operate the interesterification process according to work health and safety and operating procedures</p> <p>2.2 Monitor equipment to identify variation in operating conditions</p> <p>2.3 Identify variation in equipment operation and report maintenance requirements</p> <p>2.4 Confirm that specifications are met at each stage according to production specifications</p> <p>2.5 Identify, rectify or report out-of-specification product and process outcomes according to workplace procedures</p> <p>2.6 Maintain the work area according to workplace guidelines</p> <p>2.7 Enter workplace records in required format</p>
3. Shut down the interesterification process	<p>3.1 Identify the appropriate shutdown procedure</p> <p>3.2 Shut down the process according to operating procedures</p> <p>3.3 Identify and report maintenance requirements</p>

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"> <li>Read and interpret standard operating procedures for the interesterification process requirements</li> </ul>
Writing	<ul style="list-style-type: none"> <li>Complete records according to workplace guidelines on paper-based and electronic media</li> </ul>

Skill	Description
Numeracy	<ul style="list-style-type: none"> <li>Monitor control points for equipment capacity and operating parameters</li> </ul>
Navigate the world of work	<ul style="list-style-type: none"> <li>Apply workplace procedures to own role and responsibilities</li> <li>Understand main tasks, responsibilities and boundaries of own role, including use of personal protective clothing and equipment, housekeeping standards and environmental care requirements</li> <li>Maintain a clean and hazard-free work area</li> <li>Maintain hygiene standards</li> </ul>
Interact with others	<ul style="list-style-type: none"> <li>Report operational and safety information to relevant personnel using required communication method</li> </ul>
Get the work done	<ul style="list-style-type: none"> <li>Solve routine problems according to workplace guidelines and using experience of past solutions</li> </ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPGPS2007 Operate an interesterification process	FDFGPS2007A Operate an interesterification process	Updated to meet Standards for Training Packages	Equivalent unit

## Links

Companion Volumes, including Implementation Guides, are available at VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>



## Assessment Requirements for FBPGPS2007 Operate an interesterification process

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package version 1.0.

### Performance Evidence

An individual demonstrating competency must satisfy all of the elements and performance criteria in this unit.

There must be evidence that, on at least one occasion, the individual has:

- conducted pre-start checks on machinery used for the interesterification process
- started, operated, monitored and adjusted interesterification process equipment to remove impurities from crude oils to achieve required quality outcomes
- taken corrective action in response to typical faults and inconsistencies
- applied safe work practices and identified work health and safety hazards and controls
- completed workplace records in required format
- safely shut down equipment
- applied food safety procedures to work practices.

### Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- purpose and basic principles of the interesterification process, including a basic understanding of the chemical structure of oil and the effect of interesterification on this structure
- basic operating principles of equipment, including:
  - main equipment components
  - status and purpose of guards
  - equipment operating capacities and applications
  - the purpose and location of sensors and related feedback instrumentation
- services required for an interesterification process and action to take if services are not available
- the flow of the interesterification process and the effect of outputs on downstream edible fats and oils processes

- quality characteristics to be achieved by the interesterification process
- quality requirements of materials and effect of variation on interesterification process performance
- operating requirements and parameters and corrective action required where operation is outside specified operating parameters
- typical equipment faults and related causes, including:
  - signs and symptoms of faulty equipment
  - early warning signs of potential problems
- methods used to monitor the interesterification process, including inspecting, measuring and testing as required by the process
- inspection or test points (control points) in the interesterification process and the related procedures and recording requirements
- contamination/food safety risks associated with the interesterification process and related control measures
- common causes of variation and corrective action required
- work health and safety hazards and controls
- requirements of different shutdowns as appropriate to the interesterification process and workplace production requirements, including:
  - emergency and routine shutdowns
  - procedures to follow in the event of a power outage
- isolation, lock out and tag out procedures and responsibilities
- procedures and responsibility for reporting production and performance information
- environmental issues and controls relevant to the interesterification process, including waste/rework collection and handling procedures related to the process
- basic operating principles of process control, including the relationship between control panels and systems and the physical equipment
- sampling and testing associated with the interesterification process monitoring and control where relevant
- routine maintenance procedures for interesterification equipment
- cleaning and sanitation procedures for interesterification equipment.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - a workplace or an environment that accurately represents workplace conditions
- resources, equipment and materials:
  - personal protective clothing and equipment
  - interesterification process and related equipment and services
  - deodorised oil required for interesterification and related catalyst
  - sampling schedules, and test procedures and equipment
  - cleaning procedures, materials and equipment

- specifications:
  - work procedures, including advice on safe work practices, food safety, quality and environmental requirements
  - information on equipment capacity and operating parameters
  - production schedule/batch instructions
  - specifications, control points and processing parameters
  - documentation and recording requirements and procedures
- relationships:
  - interactions with team members and supervisors.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volumes, including Implementation Guides, are available at VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## FBPGPS2008 Operate a neutralisation process

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package version 1.0.

### Application

This unit of competency describes the skills and knowledge required to set up, operate, adjust and shut down a neutralisation process to remove impurities from crude oils.

This unit applies to individuals who apply basic operating principles to the operation and monitoring of a neutralisation process in an edible oils production environment. Processes may be batch or continuous, and apply to single or multiple product types.

All work must be carried out to comply with workplace procedures, in accordance with State/Territory work health and safety, and food safety regulations, legislation and standards that apply to the workplace.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

### Pre-requisite Unit

Nil

### Unit Sector

Grocery and product supplies (GPS)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare the neutralisation and related equipment for operation	1.1 Ensure oil stock and emulsion are available according to production requirements 1.2 Identify and confirm cleaning and maintenance requirements have

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	<p>been met</p> <p>1.3 Enter processing or operating parameters to meet safety and production requirements</p> <p>1.4 Check and adjust equipment performance as required</p> <p>1.5 Conduct pre-start checks according to operator instructions</p>
2. Operate and monitor the neutralisation process	<p>2.1 Start up and operate the neutralisation process according to work health and safety and operating procedures</p> <p>2.2 Monitor equipment to identify variation in operating conditions</p> <p>2.3 Identify variation in equipment operation and report maintenance requirements</p> <p>2.4 Confirm that specifications are met at each stage according to production specifications</p> <p>2.5 Identify, rectify or report out-of-specification product and process outcomes according to workplace procedures</p> <p>2.6 Maintain the work area according to workplace guidelines</p> <p>2.7 Enter workplace records in required format</p>
3. Shut down the neutralisation process	<p>3.1 Identify the appropriate shutdown procedure</p> <p>3.2 Shut down the process safely according to operating procedures</p> <p>3.3 Identify and report maintenance requirements</p>

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"> <li>Read and interpret standard operating procedures for the neutralisation process</li> </ul>
Writing	<ul style="list-style-type: none"> <li>Complete records according to workplace guidelines on paper-based and electronic media</li> </ul>
Numeracy	<ul style="list-style-type: none"> <li>Monitor control points for neutralisation process, including oil temperature, pressures, flow rates and chemical dosage</li> </ul>

Skill	Description
Navigate the world of work	<ul style="list-style-type: none"><li>• Apply workplace procedures to own role and responsibilities</li><li>• Understand main tasks, responsibilities and boundaries of own role, including use of personal protective clothing and equipment, housekeeping standards and environmental care requirements</li><li>• Maintain a clean and hazard-free work area</li><li>• Maintain hygiene standards</li></ul>
Interact with others	<ul style="list-style-type: none"><li>• Report operational and safety information to relevant personnel using required communication method</li></ul>
Get the work done	<ul style="list-style-type: none"><li>• Solve routine problems according to workplace guidelines and using experience of past solutions</li></ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPGPS2008 Operate a neutralisation process	FDFGPS2008A Operate a neutralisation process	Updated to meet Standards for Training Packages	Equivalent unit

## Links

Companion Volumes, including Implementation Guides, are available at VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## Assessment Requirements for FBPGPS2008 Operate a neutralisation process

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package version 1.0.

### Performance Evidence

An individual demonstrating competency must satisfy all of the elements and performance criteria in this unit.

There must be evidence that, on at least one occasion, the individual has:

- conducted pre-start checks on machinery used for neutralisation
- started, operated, monitored and adjusted neutralisation process equipment to remove impurities from crude oils to achieve required quality outcomes
- taken corrective action in response to typical faults and inconsistencies
- applied safe work practices and identified work health and safety hazards and controls
- completed workplace records in required format
- safely shut down equipment
- applied food safety procedures to work practices.

### Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- purpose and basic principles of the neutralisation process, including the type of alkali used, and the degumming process to prepare oil for neutralisation
- basic operating principles of equipment, including:
  - main equipment components
  - status and purpose of guards
  - equipment operating capacities and applications
  - the purpose and location of sensors and related feedback instrumentation
- services required for a neutralisation process and action to take, if services are not available
- the flow of the neutralisation process and the effect of outputs on downstream edible oils and fats processes
- quality characteristics to be achieved by the neutralisation process

- quality requirements of inputs and effect of variation in oil quality on neutralisation process performance
- operating requirements and parameters, and corrective action required where operation is outside specified operating parameters
- typical equipment faults and related causes, including:
  - signs and symptoms of faulty equipment
  - early warning signs of potential problems
- methods used to monitor the neutralisation process, including inspecting, measuring and testing as required by the process
- inspection or test points (control points) in the neutralisation process and the related procedures and recording requirements
- contamination and food safety risks associated with the neutralisation process and related control measures
- common causes of variation and corrective action required
- work health and safety hazards and controls
- requirements of different shutdowns as appropriate to the neutralisation process and workplace production requirements, including:
  - emergency and routine shutdowns
  - procedures to follow in the event of a power outage
- isolation, lock out and tag out procedures and responsibilities
- procedures and responsibility for reporting production and performance information
- environmental issues and controls relevant to the neutralisation process, including waste/rework collection and handling procedures related to the process
- basic operating principles of process control, including the relationship between control panels and systems and the physical equipment
- routine maintenance procedures for neutralisation equipment
- cleaning and sanitation procedures for neutralisation equipment.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - a workplace or an environment that accurately represents workplace conditions
- resources, equipment and materials:
  - personal protective clothing and equipment
  - neutralisation process and related equipment and services
  - oil required for the neutralisation process, and acid and alkali materials as required by the process
  - sampling schedules, and test procedures and equipment
  - cleaning procedures, materials and equipment
- specifications:



- work procedures, including advice on safe work practices, food safety, quality and environmental requirements
- information on equipment capacity and operating parameters
- production schedule/batch instructions
- specifications, control points and processing parameters
- documentation and recording requirements and procedures
- relationships:
  - interactions with team members and supervisors.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volumes, including Implementation Guides, are available at VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## FBPGPS2009 Operate a soap splitting process

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package version 1.0.

### Application

This unit of competency describes the skills and knowledge required to set up, operate, adjust and shut down a soap splitting process. This may also be referred to as an acid oil process. It covers the splitting of soap stock into an acid oil stream and an acid water stream. This may also be referred to as an acid oil process.

This unit applies to individuals who apply basic operating principles to the operation and monitoring of a soap splitting process in an edible oils production environment.

All work must be carried out to comply with workplace procedures, in accordance with State/Territory work health and safety, and food safety regulations, legislation and standards that apply to the workplace.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

### Pre-requisite Unit

Nil

### Unit Sector

Grocery and product supplies (GPS)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare the soap splitting and related equipment for operation	1.1 Confirm materials are available according to operating requirements 1.2 Identify and confirm cleaning and maintenance requirements have

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	<p>been met</p> <p>1.3 Fit and adjust machine components and related attachments according to operating requirements</p> <p>1.4 Enter processing or operating parameters to meet safety and production requirements</p> <p>1.5 Check and adjust equipment performance to ensure optimum performance</p> <p>1.6 Conduct pre-start checks according to operator instructions</p>
2. Operate and monitor the soap splitting process	<p>2.1 Start up and operate the soap-splitting process according to work health and safety and operating procedures</p> <p>2.2 Monitor equipment to identify variation in operating conditions</p> <p>2.3 Identify variation in equipment operation and report maintenance requirements</p> <p>2.4 Confirm that specifications are met at each stage according to production specifications</p> <p>2.5 Identify, rectify or report out-of-specification product and process outcomes according to workplace procedures</p> <p>2.6 Maintain the work area according to workplace guidelines</p> <p>2.7 Enter workplace records in required format</p>
3. Shut down the soap splitting process	<p>3.1 Identify the appropriate shutdown procedure</p> <p>3.2 Shut down the process safely according to operating procedures</p> <p>3.3 Identify and report maintenance requirements</p>

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"> <li>Read and interpret standard operating procedures for the soap splitting process</li> </ul>

Skill	Description
Writing	<ul style="list-style-type: none"> <li>Complete records according to workplace guidelines on paper-based and electronic media</li> </ul>
Numeracy	<ul style="list-style-type: none"> <li>Monitor control points for pH and temperature of reactors and acid water</li> <li>Inspect and monitor tank levels</li> </ul>
Navigate the world of work	<ul style="list-style-type: none"> <li>Apply workplace procedures to own role and responsibilities</li> <li>Understand main tasks, responsibilities and boundaries of own role, including use of personal protective clothing and equipment, housekeeping standards and environmental care requirements</li> <li>Maintain a clean and hazard-free work area</li> <li>Maintain hygiene standards</li> </ul>
Interact with others	<ul style="list-style-type: none"> <li>Report operational and safety information to relevant personnel using required communication method</li> </ul>
Get the work done	<ul style="list-style-type: none"> <li>Solve routine problems according to workplace guidelines and using experience of past solutions</li> </ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPGPS2009 Operate a soap splitting process	FDFGPS2009A Operate a soap splitting process	Updated to meet Standards for Training Packages	Equivalent unit

## Links

Companion Volumes, including Implementation Guides, are available at VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# Assessment Requirements for FBPGPS2009 Operate a soap splitting process

## Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package version 1.0.

## Performance Evidence

An individual demonstrating competency must satisfy all of the elements and performance criteria in this unit.

There must be evidence that, on at least one occasion, the individual has:

- conducted pre-start checks on machinery used for soap splitting
- started, operated, monitored and adjusted soap splitting process equipment to achieve required quality outcomes
- taken corrective action in response to typical faults and inconsistencies
- completed workplace records as required
- applied safe work practices and identified work health and safety hazards and controls
- safely shut down equipment
- applied food safety procedures to work practices.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- purpose and basic principles of soap splitting, including an understanding of the process used to split soap stock and the end uses of each stream
- basic operating principles of equipment, including:
  - main equipment components
  - status and purpose of guards
  - equipment operating capacities and applications
  - the purpose and location of sensors and related feedback instrumentation
- services required for a soap splitting process and action to take if services are not available
- the flow of this process and the effect of outputs on downstream processes, including:
  - the impact of acid water pH on the performance of the effluent plant
  - impact of allowing 'fatty' acid water to flow downstream

- requirements of acid oil and acid water streams to be achieved
- the effect of variation in soap stock on the soap splitting process
- operating requirements and parameters, and corrective action required where operation is outside specified operating parameters
- typical equipment faults and related causes, including:
  - signs and symptoms of faulty equipment
  - early warning signs of potential problems
- methods used to monitor the production process, including the purpose and methods used to conduct relevant tests (including pH, moisture and Free Fatty Acids tests)
- contamination risks associated with the process and related control measures
- common causes of variation and corrective action required
- work health and safety hazards and controls, including hazards associated with handling hazardous substances
- requirements of different shutdowns as appropriate to the process and workplace production requirements, including:
  - emergency and routine shutdowns
  - procedures to follow in the event of a power outage
- isolation, lock out and tag out procedures and responsibilities
- procedures and responsibility for reporting production and performance information
- environmental issues and controls relevant to the process, including waste or rework collection and handling procedures related to the process
- basic operating principles of process control, including the relationship between control panels and systems and the physical equipment
- routine maintenance procedures for soap splitting equipment
- cleaning and sanitation procedures for soap splitting equipment.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - a workplace or an environment that accurately represents workplace conditions
- resources, equipment and materials:
  - soap splitting process and related equipment and services
  - materials to be processed
  - personal protective clothing and equipment
  - sampling schedules and test procedures and equipment
  - cleaning procedures, materials and equipment
- specifications:
  - work procedures, including advice on safe work practices, food safety, quality and environmental requirements
  - information on equipment capacity and operating parameters
  - production schedule/batch instructions

- specifications, control points and processing parameters
- documentation and recording requirements and procedures
- relationships:
  - interactions with team members and supervisors.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volumes, including Implementation Guides, are available at VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## FBPGPS2010 Operate a winterisation process

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package version 1.0.

### Application

This unit of competency describes the skills and knowledge required to set up, operate, adjust and shut down a winterisation process to remove waxes from partially refined oil.

This unit applies to individuals who apply basic operating principles to the operation and monitoring of a winterisation process in an edible oils production environment.

All work must be carried out to comply with workplace procedures, in accordance with State/Territory work health and safety, and food safety regulations, legislation and standards that apply to the workplace.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

### Pre-requisite Unit

Nil

### Unit Sector

Grocery and product supplies (GPS)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare the winterisation equipment and process for operation	1.1 Confirm materials are available according to operating requirements 1.2 Identify and confirm cleaning and maintenance requirements have been met



Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	1.3 Fit and adjust machine components and related attachments according to operating requirements 1.4 Enter processing or operating parameters to meet safety and production requirements 1.5 Check and adjust equipment performance to ensure optimum performance 1.6 Conduct pre-start checks according to operator instructions
2. Operate and monitor the winterisation process	2.1 Start up and operate the winterisation process according to work health and safety and operating procedures 2.2 Monitor equipment to identify variation in operating conditions 2.3 Identify variation in equipment operation and report maintenance requirements 2.4 Confirm that specifications are met at each stage 2.5 Identify, rectify or report out-of-specification product and process outcomes according to production specifications 2.6 Maintain the work area according to workplace guidelines 2.7 Enter workplace records in required format
3. Shut down the winterisation process	3.1 Identify the appropriate shutdown procedure 3.2 Shut down the process safely according to operating procedures 3.3 Identify and report maintenance requirements

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"> <li>Read and interpret standard operating procedures for the winterisation process</li> </ul>
Writing	<ul style="list-style-type: none"> <li>Complete records according to workplace guidelines on paper-based and electronic media</li> </ul>

Skill	Description
Numeracy	<ul style="list-style-type: none"><li>• Monitor control points for temperature measurements, vacuum pressure, flow rates and tank levels</li></ul>
Navigate the world of work	<ul style="list-style-type: none"><li>• Apply workplace procedures to own role and responsibilities</li><li>• Understand main tasks, responsibilities and boundaries of own role, including use of personal protective clothing and equipment, housekeeping standards and environmental care requirements</li><li>• Maintain a clean and hazard-free work area</li><li>• Maintain hygiene standards</li></ul>
Interact with others	<ul style="list-style-type: none"><li>• Report operational and safety information to relevant personnel using required communication method</li></ul>
Get the work done	<ul style="list-style-type: none"><li>• Solve routine problems according to workplace guidelines and using experience of past solutions</li></ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPGPS2010 Operate a winterisation process	FDFGPS2010A Operate a winterisation process	Updated to meet Standards for Training Packages	Equivalent unit

## Links

Companion Volumes, including Implementation Guides, are available at VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# Assessment Requirements for FBPGPS2010 Operate a winterisation process

## Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package version 1.0.

## Performance Evidence

An individual demonstrating competency must satisfy all of the elements and performance criteria in this unit.

There must be evidence that, on at least one occasion, the individual has:

- conducted pre-start checks on winterisation machinery and equipment
- started, operated, monitored and adjusted winterisation process equipment to remove waxes from partially refined oil to achieve required quality outcomes
- taken corrective action in response to typical faults and inconsistencies
- completed workplace records
- applied safe work practices and identified work health and safety hazards and controls
- safely shut down equipment
- applied food safety procedures to work practices.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- purpose and basic principles of the winterisation process
- basic operating principles of equipment, including:
  - main equipment components
  - status and purpose of guards
  - equipment operating capacities and applications
  - the purpose and location of sensors and related feedback instrumentation
- services required for a winterisation process and action to take if services are not available
- the flow of the winterisation process and the effect of outputs on downstream processes
- quality characteristics to be achieved by the winterisation process
- quality requirements of oil to be winterised and effect of variation on winterisation process performance

- operating requirements and parameters and corrective action required where operation is outside specified operating parameters
- typical equipment faults and related causes, including signs and symptoms of faulty equipment and early warning signs of potential problems
- methods used to monitor the winterisation process, including inspecting, measuring and testing as required by the process
- inspection or test points (control points) in the process and the related procedures and recording requirements
- contamination and food safety risks associated with the winterisation process and related control measures
- common causes of variation and corrective action required
- work health and safety hazards and controls
- requirements of different shutdowns as appropriate to the winterisation process and workplace production requirements, including:
  - emergency and routine shutdowns
  - procedures to follow in the event of a power outage
- isolation, lock out and tag out procedures and responsibilities
- procedures and responsibility for reporting production and performance information
- environmental issues and controls relevant to the winterisation process, including waste/rework collection and handling procedures related to the process
- basic operating principles of process control, including the relationship between control panels and systems and the physical equipment
- routine maintenance procedures for winterisation equipment
- cleaning and sanitation procedures for winterisation equipment.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - a workplace or an environment that accurately represents workplace conditions
- resources, equipment and materials:
  - winterisation process and related equipment and services
  - deodorised oil and filter aid as required for winterisation
  - personal protective clothing and equipment
  - sampling schedules and test procedures and equipment
  - cleaning procedures, materials and equipment
- specifications:
  - work procedures, including advice on safe work practices, food safety, quality and environmental requirements
  - information on equipment capacity and operating parameters
  - production schedule/batch instructions
  - specifications, control points and processing parameters

- documentation and recording requirements and procedures
- relationships:
  - interactions with team members and supervisors.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volumes, including Implementation Guides, are available at VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## FBPGPS2011 Operate a creamed honey manufacture process

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package version 1.0.

### Application

This unit of competency describes the skills and knowledge required to set up, monitor, and adjust a process to produce creamed honey.

This unit applies to individuals who apply basic operating principles to the operation and monitoring of machines and equipment used to cream honey in a production environment within the honey processing industry.

All work must be carried out to comply with workplace procedures, in accordance with State/Territory work health and safety, and food safety regulations, legislation and standards that apply to the workplace.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

### Pre-requisite Unit

Nil

### Unit Sector

Grocery and product supplies (GPS)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare the equipment and process for operation	1.1 Confirm liquid and seed honey are available to meet production requirements 1.2 Identify and confirm cleaning and maintenance requirements have

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	<p>been met</p> <p>1.3 Fit and adjust machine components and related attachments according to operating requirements</p> <p>1.4 Enter processing or operating parameters to meet safety and production requirements</p> <p>1.5 Check and adjust equipment performance as required</p> <p>1.6 Conduct pre-start checks according to operator instructions</p>
2. Operate and monitor the creamed honey manufacture process	<p>2.1 Start-up and operate the honey manufacture process according to work health and safety and operating procedures</p> <p>2.2 Monitor equipment to identify variation in operating conditions</p> <p>2.3 Identify variation in equipment operation and report maintenance requirements</p> <p>2.4 Confirm that specifications are met at each stage according to production specifications</p> <p>2.5 Identify, rectify or report out-of-specification product and process outcomes according to workplace procedures</p> <p>2.6 Maintain the work area according to workplace guidelines</p> <p>2.7 Enter workplace records in required format</p>
3. Shut down the creamed honey manufacture process	<p>3.1 Identify the appropriate shutdown procedure</p> <p>3.2 Shut down the process safely according to operating procedures</p> <p>3.3 Identify and report maintenance requirements</p>

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"> <li>Read and interpret standard operating procedures for the creamed honey manufacturing process</li> </ul>
Writing	<ul style="list-style-type: none"> <li>Complete records according to workplace guidelines on paper-based and electronic media</li> </ul>

Skill	Description
Numeracy	<ul style="list-style-type: none"> <li>Monitor control points for time and temperature measurements, vacuum pressure and steam flow</li> </ul>
Navigate the world of work	<ul style="list-style-type: none"> <li>Apply workplace procedures to own role and responsibilities</li> <li>Understand main tasks, responsibilities and boundaries of own role, including use of personal protective clothing and equipment, housekeeping standards and environmental care requirements</li> <li>Maintain a clean and hazard-free work area</li> <li>Maintain hygiene standards</li> </ul>
Interact with others	<ul style="list-style-type: none"> <li>Report operational and safety information to relevant personnel using required communication method</li> </ul>
Get the work done	<ul style="list-style-type: none"> <li>Solve routine problems according to workplace guidelines and using experience of past solutions</li> </ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPGPS2011 Operate a creamed honey manufacture process	FDFGPS2011A Operate a creamed honey manufacture process	Updated to meet Standards for Training Packages	Equivalent unit

## Links

Companion Volumes, including Implementation Guides, are available at VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>



## Assessment Requirements for FBPGPS2011 Operate a creamed honey manufacture process

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package version 1.0.

### Performance Evidence

An individual demonstrating competency must satisfy all of the elements and performance criteria in this unit.

There must be evidence that, on at least one occasion, the individual has:

- conducted pre-start checks on machinery used for creaming honey
- started, operated, monitored and adjusted process equipment used for creaming honey to achieve required quality outcomes
- taken corrective action in response to typical faults and inconsistencies
- completed workplace records in required format
- applied safe work practices, and identified work health and safety hazards and controls
- safely shut down equipment
- applied food safety procedures.

### Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- basic principles of crystallisation, including:
  - an understanding of crystal structure and where appropriate
  - methods used to reduce crystal size
  - the effects of temperature and agitation on crystal formation
  - appropriate ratio of seed to liquid honey
  - factors that influence the crystallisation process, including moisture content and crystal size
- basic operating principles of equipment, including:
  - main equipment components
  - status and purpose of guards
  - equipment operating capacities and applications

- purpose and location of sensors and related feedback instrumentation
- services required for creamed honey manufacture and action to take if services are not available
- quality and organoleptic characteristics of different types of honey processed
- quality characteristics to be achieved by the final product, and related test methods used to confirm quality
- quality requirements of seed and liquid honey used, and the effect of variation on the final product
- operating requirements, parameters and corrective action required where the process is outside specified operating parameters (including ambient and processing temperatures, agitation speeds, and holding times and temperatures)
- typical equipment faults and related causes, including:
  - signs and symptoms of faulty equipment
  - early warning signs of potential problems
- methods used to monitor each stage of the production process, including inspecting, measuring and testing as required
- inspection or test points (control points) in the process and the related procedures and recording requirements
- contamination and food safety risks associated with the process and related control measures (this relates specifically to air inclusion and moisture content, and related methods of control)
- common causes of variation and corrective action required
- factors that affect the stability and shelf-life of the finished product and options to extend shelf-life, including storage conditions for packed product
- work health and safety hazards and controls, including the limitations of protective clothing and equipment relevant to the work process
- requirements of different shutdowns as appropriate to the process and workplace production requirements, including:
  - emergency and routine shutdowns
  - procedures to follow in the event of a power outage
- isolation, lock out and tag out procedures and responsibilities
- procedures and responsibility for reporting production and performance information
- environmental issues and controls relevant to the process, including waste/rework collection and handling procedures related to the process
- basic operating principles of process control, including the relationship between control panels and systems and the physical equipment
- routine maintenance procedures for creamed honey manufacture equipment
- cleaning and sanitation procedures for creamed honey manufacture equipment.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:

- a workplace or an environment that accurately represents workplace conditions
- resources, equipment and materials:
  - process and related equipment and services
  - seed and liquid honey
  - personal protective clothing and equipment
  - sampling schedules, and test procedures and equipment
  - cleaning procedures, materials and equipment
- specifications:
  - work procedures, including advice on safe work practices, food safety, quality and environmental requirements
  - information on equipment capacity and operating parameters
  - production schedule/batch instructions
  - specifications, control points and processing parameters
  - documentation and recording requirements and procedures
- relationships:
  - interactions with team members and supervisors.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volumes, including Implementation Guides, are available at VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## FBPGRA2001 Operate a liquid, mash or block stockfeed process

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package version 1.0.

### Application

This unit of competency describes the skills and knowledge required to set up, operate, adjust and shut down process equipment used to produce liquid, mash or block stockfeed.

The unit applies to plant operators involved in the production of liquid, mash and block stockfeeds for a variety of animal species and animal production requirements. Stockfeeds can be prepared as standard products or to particular customer specification.

All work must be carried out to comply with workplace procedures, in accordance with State/Territory work health and safety, and food safety regulations, legislation and standards that apply to the workplace.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

### Pre-requisite Unit

Nil

### Unit Sector

Grain processing (GRA)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare the equipment and process for operation	1.1 Confirm materials are available according to operating requirements 1.2 Identify and confirm cleaning and maintenance requirements have been met according to work health and safety and food safety

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	<p>procedures</p> <p>1.3 Fit and adjust machine components and related attachments according to operating requirements and safety procedures</p> <p>1.4 Select, fit and use personal protective equipment according to safety requirements</p> <p>1.5 Enter processing or operating parameters to meet safety and production requirements</p> <p>1.6 Check and adjust equipment performance to ensure optimum performance</p> <p>1.7 Carry out pre-start checks according to operator instructions</p>
2. Operate and monitor the liquid, mash or block stockfeed process	<p>2.1 Start and operate the process according to work health and safety and operating procedures</p> <p>2.2 Monitor equipment to identify variation in operating conditions</p> <p>2.3 Identify variation in equipment operation and report maintenance requirements</p> <p>2.4 Identify, rectify or report out-of-specification product or process outcomes</p> <p>2.5 Maintain the work area according to work health and safety and food safety procedures</p> <p>2.6 Maintain workplace records according to workplace procedures</p>
3. Shut down the process	<p>3.1 Identify the appropriate shutdown procedure</p> <p>3.2 Shut down the process safely according to operating procedures</p> <p>3.3 Identify and report maintenance requirements according to workplace procedures</p>

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"> <li>Read and interpret standard stockfeed orders and customer</li> </ul>

Skill	Description
	specification requirements
Writing	<ul style="list-style-type: none"> <li>Record product information on paper-based and electronic media</li> <li>Record equipment failure on paper-based and electronic media</li> </ul>
Numeracy	<ul style="list-style-type: none"> <li>Use correct ratios when adding and mixing ingredients, micronutrients and additives</li> <li>Read and record temperature measurements</li> </ul>
Navigate the world of work	<ul style="list-style-type: none"> <li>Apply workplace procedures to own role and responsibilities</li> <li>Understand main tasks, responsibilities and boundaries of own role, including use of personal protective clothing and equipment, housekeeping standards and environmental care requirements</li> <li>Ask questions to clarify understanding or seek further information</li> </ul>
Interact with others	<ul style="list-style-type: none"> <li>Use oral communication skills as specified by the organisation, including questioning, active listening, asking for clarification and seeking advice from supervisor</li> <li>Communicate and report operational and safety information to relevant personnel</li> </ul>
Get the work done	<ul style="list-style-type: none"> <li>Maintain a clean and hazard-free work area</li> <li>Maintain hygiene standards and wear required personal protective equipment</li> <li>Maintain quality specifications when producing different types of stockfeed</li> <li>Solve familiar and generally predictable problems within workplace guidelines, and using experience of past solutions</li> </ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPGRA2001 Operate a liquid, mash or block stockfeed process	FDFGR2001A Operate a liquid, mash or block stockfeed process	Updated to meet Standards for Training Packages	Equivalent unit

## Links

Companion Volumes, including Implementation Guides, are available at VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>



## Assessment Requirements for FBPGRA2001 Operate a liquid, mash or block stockfeed process

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package version 1.0.

### Performance Evidence

An individual demonstrating competency must satisfy all of the elements and performance criteria in this unit.

There must be evidence that, on at least one occasion, the individual has:

- identified and interpreted production and customer requirements for mash, liquid or block stockfeed
- selected, fitted and used personal protective equipment
- conducted pre-start checks on machinery
- started, operated and monitored production equipment to ensure consistency and quality of output
- taken corrective action in response to typical faults and inconsistencies
- added and mixed ingredients, micronutrients and additives as required
- followed quality and contamination avoidance procedures
- completed workplace records as required
- applied safe work practices and identified work health and safety hazards and controls
- safely shut down equipment
- applied food safety procedures to work practices.

### Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- purpose and basic principles of each part of the process, including:
  - volumetric metering, mixing, steam conditioning, pouring, pressing, cooling, adding and mixing in micronutrient and other additives to achieve specified proportions
  - sequencing of production to minimise transference and cross-contamination
  - traceability procedures
- basic operating principles of equipment, including:
  - main equipment components



- status and purpose of guards
- equipment operating capacities and applications
- the purpose and location of sensors and related feedback instrumentation
- services required and action to take if services are not available
- basic operating principles of process control, including the relationship between control panels and systems and the physical equipment
- the flow of the stockfeed production process and the effect of outputs on downstream processes
- quality characteristics and uses of finished stockfeed
- effect of variation in inputs and services on process performance
- operating requirements and parameters, and corrective action required where operation is outside specified operating parameters
- the effect on final product of variation in variables, including:
  - oil and fat content
  - micronutrient and additive
  - consistency and appearance of mash, liquid or block stockfeed
  - retention time and temperatures for steam conditioning, including consequences of temperatures that are too high and too low on chemical composition
  - retention time and temperature for liquid addition
- typical equipment faults and related causes, including:
  - signs and symptoms of faulty equipment
  - early warning signs of potential problems
- methods used to monitor the mash, liquid or block feed process, including inspecting, measuring and testing as required by the process
- inspection or test points (control points) in the process, and the related procedures and recording requirements
- common causes of variation and corrective action required
- contamination risks and related controls
- work health and safety hazards and controls, including the limitations of protective clothing and equipment relevant to the work process
- requirements of different shutdowns as appropriate to the process and workplace requirements, including:
  - emergency and routine shutdowns
  - procedures to follow in the event of a power outage
  - routine maintenance procedures
- cleaning and sanitation procedures relevant for producing liquid, mash and block stock feed
- isolation, lock out and tag out procedures and responsibilities
- procedures and responsibility for reporting production and performance information
- environmental issues and controls relevant to the process, including waste/rework collection and handling procedures related to the process.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - a grain processing workplace or an environment that accurately represents workplace conditions
- resources, equipment and materials:
  - personal protective equipment
  - stockfeed inputs and additives
- specifications:
  - workplace procedures, including safe work practices, food safety, quality, and environmental requirements
  - stockfeed orders.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volumes, including Implementation Guides, are available at VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## FBPGRA2002 Recognise mill operations and technologies

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package version 1.0.

### Application

This unit of competency describes the skills and knowledge required to identify mill operations and technologies in a stockfeed mill.

The unit applies to production operators who are required to recognise and work safely and effectively with stockfeed milling materials, equipment, processes and common risks.

All work must be carried out to comply with workplace procedures, in accordance with State/Territory work health and safety, and food safety regulations, legislation and standards that apply to the workplace.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

### Pre-requisite Unit

Nil

### Unit Sector

Grain processing (GRA)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Locate stockfeed mill departments, walkways, storage and assembly areas	1.1 Identify raw materials receival and storage areas in mill 1.2 Identify control rooms and other main operator stations in mill 1.3 Identify milling, batch and mixing, pelletising, liquid, mash and block stockfeed production areas

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	1.4 Identify additive storage in mill 1.5 Locate support services, including maintenance, administration, laboratory and quality assurance, and information technology departments in mill 1.6 Locate finished products storage and despatch areas in mill 1.7 Locate walkways and emergency assembly areas in mill
2. Recognise stages of the mill production process	2.1 Identify main raw materials and source in mill production process 2.2 Identify receival processes, including weighing, volume and quality checks 2.3 Identify milling process in mill production 2.4 Identify batching and mixing processes, including recipe, micronutrients and additives 2.5 Identify post-mixing processes, including pelletising, mashing, pressing and setting 2.6 Locate labelling and packing operations in mill production
3. Identify range of stockfeeds, their purpose and target species	3.1 Identify differences in pellet, mash, liquid and block stockfeeds 3.2 Identify target species and animals for stockfeed mill products 3.3 Recognise properties and benefits of stockfeed
4. Recognise main risks to stockfeed milling operations	4.1 Locate dust control and dust control procedures 4.2 Identify additives requiring special safety and handling procedures 4.3 Locate typical pests and related pest control procedures 4.4 Identify main risks to product quality, including contamination, incorrect recipe adherence, incorrect sequencing and product transference, and incorrect labelling and packaging 4.5 Identify environmental procedures for mill operations

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"><li>• Read diagrams and sketches</li><li>• Interpret labelling for a range of stockfeed types</li></ul>
Writing	<ul style="list-style-type: none"><li>• Record product information on paper-based and electronic media</li></ul>
Numeracy	<ul style="list-style-type: none"><li>• Apply correct ratios of raw materials and quality characteristics for different types of finished stockfeed</li></ul>
Navigate the world of work	<ul style="list-style-type: none"><li>• Apply workplace procedures to own role and responsibilities</li><li>• Understand main tasks, responsibilities and boundaries of own role, including use of personal protective clothing and equipment, housekeeping standards and environmental care requirements</li><li>• Ask questions to clarify understanding or seek further information</li></ul>
Interact with others	<ul style="list-style-type: none"><li>• Use oral communication skills as specified by the organisation, including questioning, active listening, asking for clarification and seeking advice from supervisor</li><li>• Communicate and report operational and safety information to relevant personnel</li></ul>
Get the work done	<ul style="list-style-type: none"><li>• Maintain a clean and hazard-free work area</li><li>• Maintain hygiene standards and wear required personal protective equipment</li><li>• Describe quality specifications for different types of stockfeed</li><li>• Describe familiar and generally predictable problems within workplace guidelines and using experience of past solutions</li></ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPGRA2002 Recognise mill operations and technologies	FDFGR2002A Understand mill operations and technologies	Updated to meet Standards for Training Packages	Equivalent unit

## Links

Companion Volumes, including Implementation Guides, are available at VETNet: - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# Assessment Requirements for FBPGRA2002 Recognise mill operations and technologies

## Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package version 1.0.

## Performance Evidence

An individual demonstrating competency must satisfy all of the elements and performance criteria in this unit.

There must be evidence that, on at least one occasion, the individual has:

- identified the major steps in the stockfeed production process
- recognised stockfeed products and purposes, including pellets, liquid, mash and block stockfeeds, basic role of additives, typical target species and animals
- located departments, major walkways and assembly areas in the stockfeed mill
- identified major risk, including pests, contamination and incorrect adherence to recipes
- identified environmental procedures for mill operations.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- purpose and operating principles of each part of the stockfeed production process, including:
  - volumetric metering, mixing, steam conditioning, pelletising pouring, pressing, cooling, adding and mixing in micronutrient and other additives
  - sequencing of production to minimise transference and cross-contamination
  - traceability procedures
- range of raw materials and typical sourcing procedures
- stockfeed product range and targeted species and animals
- basic operating principles of equipment used and main equipment components
- basic operating principles of process control, including the relationship between control rooms and panels and the physical equipment
- the flow of the stockfeed production process
- quality characteristics and uses of finished stockfeed

- operating requirements and parameters and corrective action required where operation is outside specified operating parameters
- methods used to monitor the stockfeed process, including inspecting, measuring and testing as required by the process
- workplace procedures for controlling environmental risks in a mill operation
- contamination risks and related controls relevant to mill operations
- work health and safety hazards and controls, including dust, contamination and materials requiring special handling procedures and emergency assembly areas.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - an industrial grain processing mill or an environment that accurately represents workplace conditions
- resources, equipment and materials:
  - a range of different types of standard stockfeeds
  - personal protective equipment required to work safely and effectively in a stockfeed mill
  - industrial equipment for processing grain in commercial quantities
- specifications:
  - workplace procedures, including safe work practices, food safety, quality, and environmental requirements
  - product specifications
  - mill layout plans.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volumes, including Implementation Guides, are available at VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## FBPGRA2003 Operate a grain conditioning process

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package version 1.0.

### Application

This unit of competency describes the skills and knowledge required to set up, operate, adjust and shut down a process to condition grain by adding water to create a moisture level required for the separation and reduction processes.

This unit applies to individuals who work in a grain processing environment. It typically targets the production worker responsible for applying basic operating principles to the operation and monitoring of grain conditioning equipment and processes.

All work must be carried out to comply with workplace procedures, in accordance with State/Territory work health and safety legislation and that apply to the workplace.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

### Pre-requisite Unit

Nil

### Unit Sector

Grain processing (GRA)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare the grain conditioning equipment and process for operation	1.1 Confirm materials are available according to operating requirements 1.2 Identify and ensure cleaning and maintenance requirements have



Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	<p>been met</p> <p>1.3 Select, fit and use personal protective equipment as required</p> <p>1.4 Fit and adjust machine components and related attachments according to operating requirements</p> <p>1.5 Enter processing or operating parameters to meet safety and production requirements</p> <p>1.6 Check and adjust equipment to ensure optimum performance</p> <p>1.7 Conduct pre-start checks according to operator instructions</p>
2. Operate and monitor the grain conditioning process	<p>2.1 Start and operate the process according to work health and safety and operating procedures</p> <p>2.2 Monitor equipment to identify variation in operating conditions</p> <p>2.3 Identify faults and inconsistencies in equipment operation and report maintenance requirements</p> <p>2.4 Monitor the process to confirm that conditioned product meets grist moisture specifications</p> <p>2.5 Store conditioned product according to food safety procedures</p> <p>2.6 Identify, rectify or report out-of-specification product or process outcomes</p> <p>2.7 Maintain the work area according to work health and safety and operating procedures</p> <p>2.8 Maintain workplace records according to workplace procedures</p>
3. Shut down the process	<p>3.1 Identify the appropriate shutdown procedure</p> <p>3.2 Shut down the process safely according to operating procedures</p> <p>3.3 Identify and report maintenance requirements according to workplace procedures</p>

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
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Skill	Description
Reading	<ul style="list-style-type: none"> <li>Read and interpret grain conditioning processing requirements</li> </ul>
Writing	<ul style="list-style-type: none"> <li>Record product information on paper-based and electronic media</li> <li>Record equipment failure on paper-based and electronic media</li> </ul>
Numeracy	<ul style="list-style-type: none"> <li>Calculate water addition to suit machine and wheat type</li> </ul>
Navigate the world of work	<ul style="list-style-type: none"> <li>Apply workplace procedures to own role and responsibilities</li> <li>Understand main tasks, responsibilities and boundaries of own role, including use of personal protective clothing and equipment, housekeeping standards and environmental care requirements</li> <li>Ask questions to clarify understanding or seek further information</li> </ul>
Interact with others	<ul style="list-style-type: none"> <li>Use oral communication skills as specified by the organisation, including questioning, active listening, asking for clarification and seeking advice from supervisor</li> <li>Communicate and report operational and safety information to relevant personnel</li> </ul>
Get the work done	<ul style="list-style-type: none"> <li>Maintain a clean and hazard-free work area</li> <li>Maintain hygiene standards and wear required personal protective equipment</li> <li>Maintain quality specifications when conditioning different types of grain</li> <li>Solve familiar and generally predictable problems within workplace guidelines and using experience of past solutions</li> </ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPGRA2003 Operate a grain conditioning process	FDFGR2003A Operate a grain conditioning process	Updated to meet Standards for Training Packages	Equivalent unit

## Links

Companion Volumes, including Implementation Guides, are available at VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>



## Assessment Requirements for FBPGRA2003 Operate a grain conditioning process

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package version 1.0.

### Performance Evidence

An individual demonstrating competency must satisfy all of the elements and performance criteria in this unit.

There must be evidence that, on at least one occasion, the individual has:

- conducted pre-start checks on machinery used for grain conditioning
- selected, fitted and used personal protective equipment
- started, operated, monitored and adjusted process equipment to achieve required quality outcomes
- taken corrective action in response to typical faults and inconsistencies
- completed workplace records as required
- applied safe work practices and identified work health and safety hazards and controls
- safely shut down equipment
- applied food safety procedures to work practices.

### Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- purpose and basic principles of the conditioning process
- basic operating principles of equipment, including:
  - main equipment components
  - status and purpose of guards
  - equipment operating capacities and applications
  - the purpose and location of sensors and related feedback instrumentation
- services required and action to take if services are not available
- the flow of the conditioning process and the effect of outputs on downstream flour milling processes
- quality characteristics to be achieved by the conditioning process

- quality requirements of materials and effect of variation on conditioning process performance
- types of grain and their qualities
- microbiological considerations in conditioning grain
- operating requirements and parameters and corrective action required where operation is outside specified operating parameters
- typical equipment faults and related causes, including:
  - signs and symptoms of faulty equipment
  - early warning signs of potential problems
- methods used to monitor the conditioning process, including inspecting, measuring and testing as required by the process
- inspection or test points (control points) in the conditioning process and the related procedures and recording requirements
- contamination and food safety risks associated with the conditioning process and related control measures, including potential risks associated with out-of-specification lying times of conditioned grain
- common causes of variation and corrective action required
- work health and safety hazards and controls
- requirements of different shutdowns as appropriate to the conditioning process and workplace production requirements, including:
  - emergency and routine shutdowns
  - procedures to follow in the event of a power outage
- isolation, lock out and tag out procedures and responsibilities
- procedures and responsibility for reporting production and performance information
- environmental issues and controls relevant to the conditioning process, including waste and rework collection and handling procedures related to the process
- basic operating principles of process control, where relevant, including the relationship between control panels and systems and the physical equipment
- routine maintenance procedures for operating a grain conditioning process
- cleaning and sanitation procedures for operating a grain conditioning process.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - a grain processing workplace or an environment that accurately represents workplace conditions
- resources, equipment and materials:
  - personal protective clothing and equipment required to set up, operate and monitor grain conditioning equipment and processes
  - types of grain for conditioning
  - grain conditioning additives
  - sample workplace records

- production schedule and batch instructions
- conditioning process and related equipment and services
- specifications:
  - grain conditioning orders
  - work procedures, including advice on safe work practices, food safety, quality and environmental requirements
  - information on equipment capacity and operating parameters.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volumes, including Implementation Guides, are available at VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## FBPGRA2004 Operate a grain cleaning process

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package version 1.0.

### Application

This unit of competency describes the skills and knowledge required to set up, operate, adjust and shut down a cleaning process to screen impurities from the grist prior to the conditioning process.

The unit applies to individuals who work in a grain processing environment. It typically targets the production worker responsible for applying basic operating principles to the operation and monitoring of grain cleaning equipment and processes.

All work must be carried out to comply with workplace procedures, in accordance with State/Territory work health and safety legislation that apply to the workplace.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

### Pre-requisite Unit

Nil

### Unit Sector

Grain processing (GRA)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare the grain cleaning equipment and process for operation	1.1 Confirm materials are available according to operating requirements 1.2 Identify and ensure cleaning and maintenance requirements have

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	<p>been met according to food safety requirements</p> <p>1.3 Select, fit and use personal protective equipment</p> <p>1.4 Fit and adjust machine components and related attachments according to operating requirements</p> <p>1.5 Enter processing or operating parameters to meet safety and production requirements</p> <p>1.6 Set up the bin system according to operating requirements</p> <p>1.7 Check and adjust equipment to ensure optimum performance</p> <p>1.8 Carry out pre-start checks according to operator instructions</p>
2. Operate and monitor the grain cleaning process	<p>2.1 Start and operate the process according to work health and safety and operating procedures</p> <p>2.2 Monitor equipment to identify variation in operating conditions</p> <p>2.3 Identify variation in equipment operation and report maintenance requirements</p> <p>2.4 Monitor the process to confirm that conditioned product meets grist moisture specifications</p> <p>2.5 Store conditioned product according to food safety procedures</p> <p>2.6 Identify, rectify or report out-of-specification product and process outcomes</p> <p>2.7 Maintain the work area according to work health and safety and operating procedures</p> <p>2.8 Maintain workplace records according to workplace procedures</p>
3. Shut down the grain cleaning process	<p>3.1 Identify the appropriate shutdown procedure</p> <p>3.2 Shut down the process safely according to operating procedures</p> <p>3.3 Identify and report maintenance requirements safely according to workplace procedures</p>

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*



Skill	Description
Reading	<ul style="list-style-type: none"> <li>Interpret directions for the safe operation of equipment</li> </ul>
Writing	<ul style="list-style-type: none"> <li>Record grain cleaning process using paper-based and electronic media</li> </ul>
Numeracy	<ul style="list-style-type: none"> <li>Confirm supply of necessary materials and services</li> <li>Monitor actions including temperature gauges and tank levels</li> </ul>
Navigate the world of work	<ul style="list-style-type: none"> <li>Apply workplace procedures to own role and responsibilities</li> <li>Understand tasks and responsibilities required for performing own role in the workplace</li> <li>Ask questions to clarify understanding or seek further information</li> </ul>
Interact with others	<ul style="list-style-type: none"> <li>Communicate and report operational and safety information to relevant personnel</li> <li>Communicate and report workplace activity and safety information to relevant personnel</li> </ul>
Get the work done	<ul style="list-style-type: none"> <li>Maintain a clean and hazard-free work area</li> <li>Maintain hygiene standards and wear required personal protective equipment</li> <li>Maintain quality requirements for the sanitisation and use of equipment</li> <li>Solve familiar and generally predictable problems within workplace guidelines and using experience of past solutions</li> </ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPGRA2004 Operate a grain cleaning process	FDFGR2004A Operate a grain cleaning process	Updated to meet Standards for Training Packages	Equivalent unit

## Links

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<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# Assessment Requirements for FBPGRA2004 Operate a grain cleaning process

## Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package version 1.0.

## Performance Evidence

An individual demonstrating competency must satisfy all of the elements and performance criteria in this unit.

There must be evidence that, on at least one occasion, the individual has:

- conducted pre-start checks on machinery used for grain cleaning
- selected, fitted and used personal protective equipment
- started, operated, monitored and adjusted process equipment to achieve required quality outcomes
- taken corrective action in response to typical faults and inconsistencies
- completed workplace records as required
- applied safe work practices and identified work health and safety hazards and controls
- safely shut down equipment
- applied food safety procedures to work practices.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- purpose and basic principles of the grain cleaning process
- basic operating principles of equipment, including:
  - main equipment components
  - status and purpose of guards
  - equipment operating capacities and applications
  - the purpose and location of sensors and related feedback instrumentation
- services required and action to take if services are not available
- the flow of the grain cleaning process and the effect of outputs on downstream processes
- quality characteristics to be achieved by the grain cleaning process
- quality requirements of materials and effect of variation on grain cleaning process performance

- how and why various kinds of wheat are blended to make grist
- purpose of the break rolls
- how and why the separation of endosperm takes place
- operating requirements and parameters and corrective action required where operation is outside specified operating parameters
- typical equipment faults and related causes, including:
  - signs and symptoms of faulty equipment
  - early warning signs of potential problems
- methods used to monitor the grain cleaning process, including inspecting, measuring and testing as required by the process
- inspection or test points (control points) in the grain cleaning process and the related procedures and recording requirements
- contamination and food safety risks associated with the grain cleaning process and related control measures
- common causes of variation and corrective action required
- work health and safety hazards and controls, including the limitations of protective clothing and equipment relevant to the work process
- requirements of different shutdowns as appropriate to the grain cleaning process and workplace production requirements, including:
  - emergency and routine shutdowns
  - procedures to follow in the event of a power outage
- isolation, lock out and tag out procedures and responsibilities
- procedures and responsibility for reporting production and performance information
- environmental issues and controls relevant to the grain cleaning process, including waste and rework collection and handling procedures related to the process
- basic operating principles of process control, where relevant, including the relationship between control panels and systems and the physical equipment
- routine maintenance procedures for operating a grain cleaning process
- cleaning and sanitation procedures for operating a grain cleaning process.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - a workplace or an environment that accurately represents workplace conditions
- resources, equipment and materials:
  - personal protective equipment required to operate grain cleaning process
  - grain cleaning equipment and inputs
  - production schedule and batch instructions
  - grain cleaning process and related equipment and services
  - materials required for the grain cleaning process
  - cleaning procedures, materials and equipment

- specifications:
  - work procedures, including advice on safe work practices, food safety, quality and environmental requirements
  - information on equipment capacity and operating parameters.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volumes, including Implementation Guides, are available at VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## FBPGRA2005 Operate a purification process

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package version 1.0.

### Application

This unit of competency describes the skills and safety knowledge required to set up, operate, adjust and shut down a separation and grading process to remove particles of bran, with or without endosperm or germ attached, from the stock flow.

This unit applies to individuals who work in a stockfeed production environment. It typically targets the production worker responsible for applying basic operating principles to the operation and monitoring of stockfeed purification equipment and processes.

All work must be carried out to comply with workplace procedures, in accordance with State/Territory work health and safety that apply to the workplace.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

### Pre-requisite Unit

Nil

### Unit Sector

Grain processing (GRA)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare the purification equipment and process for operation	1.1 Confirm materials are available according to operating requirements 1.2 Identify and ensure cleaning and maintenance requirements have

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	<p>been met according to food safety requirements</p> <p>1.3 Select, fit and use personal protective equipment</p> <p>1.4 Fit and adjust machine components and related attachments according to operating requirements</p> <p>1.5 Enter processing or operating parameters to meet safety and production requirements</p> <p>1.6 Check and adjust equipment to ensure optimum performance</p> <p>1.7 Carry out pre-start checks according to operator instructions</p>
2. Operate and monitor the purification process	<p>2.1 Start and operate the process according to work health and safety and operating procedures</p> <p>2.2 Monitor equipment to identify variation in operating conditions</p> <p>2.3 Identify variation in equipment operation and report maintenance requirements</p> <p>2.4 Monitor the process to confirm that particle size and quantity of stock meets specifications</p> <p>2.5 Remove fine bran from the semolina and return the bran product with endosperm attached to the purification process or scratch rolls for further processing</p> <p>2.6 Identify, rectify or report out-of-specification product and process outcomes according to workplace procedures</p> <p>2.7 Maintain the work area according to work health and safety and operating procedures</p> <p>2.8 Maintain workplace records according to workplace procedures</p>
3. Shut down the purification process	<p>3.1 Identify the appropriate shutdown procedure</p> <p>3.2 Shut down the process safely according to operating procedures</p> <p>3.3 Identify and report maintenance requirements according to workplace procedures</p>

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"> <li>Interpret directions for the safe operation of equipment</li> </ul>
Writing	<ul style="list-style-type: none"> <li>Record product information on paper-based and electronic media</li> <li>Record equipment failure on paper-based and electronic media</li> </ul>
Numeracy	<ul style="list-style-type: none"> <li>Use correct ratios when adding and mixing ingredients, including any micronutrients and additives</li> </ul>
Navigate the world of work	<ul style="list-style-type: none"> <li>Apply workplace procedures to own role and responsibilities</li> <li>Understand tasks and responsibilities required for performing own role in the workplace</li> <li>Ask questions to clarify understanding or seek further information</li> </ul>
Interact with others	<ul style="list-style-type: none"> <li>Use oral communication skills as specified by the organisation, including questioning, active listening, asking for clarification and seeking advice from supervisor</li> <li>Communicate and report operational and safety information to relevant personnel</li> </ul>
Get the work done	<ul style="list-style-type: none"> <li>Maintain a clean and hazard-free work area</li> <li>Maintain hygiene standards and wear required personal protective equipment</li> <li>Identify faults and related causes, including signs and symptoms of faulty equipment and early warning signs of potential problems</li> <li>Maintain quality requirements for the sanitisation and use of equipment</li> </ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPGRA2005 Operate a purification process	FDFGR2005A Operate a purification process	Updated to meet Standards for Training Packages	Equivalent unit

## Links

Companion Volumes, including Implementation Guides, are available at VETNet: - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## Assessment Requirements for FBPGRA2005 Operate a purification process

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package version 1.0.

### Performance Evidence

An individual demonstrating competency must satisfy all of the elements and performance criteria in this unit.

There must be evidence that, on at least one occasion, the individual has:

- conducted pre-start checks on machinery used for purification
- selected, fitted and used personal protective equipment
- started, operated, monitored and adjusted process equipment to remove particles of bran, with or without endosperm or germ attached, from the stock flow to achieve required quality outcomes
- taken corrective action in response to typical faults and inconsistencies
- completed workplace records as required
- applied safe work practices and identified work health and safety hazards and controls
- safely shut down equipment
- applied food safety procedures to work practices.

### Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- purpose and basic principles of the purification process
- basic operating principles of equipment, including:
  - main equipment components
  - status and purpose of guards
  - equipment operating capacities and applications
  - the purpose and location of sensors and related feedback instrumentation
- services required and action to take if services are not available
- the flow of the purification process and the effect of outputs on downstream flour milling processes
- quality characteristics to be achieved by the purification process



- quality requirements of materials and effect of variation on purification process performance
- operating requirements and parameters and corrective action required where operation is outside specified operating parameters
- typical equipment faults and related causes, including:
  - signs and symptoms of faulty equipment
  - early warning signs of potential problems
- methods used to monitor the purification process, including inspecting, measuring and testing as required by the process
- inspection or test points (control points) in the purification process and the related procedures and recording requirements
- contamination and food safety risks associated with the purification process and related control measures
- common causes of variation and corrective action required
- work health and safety hazards and controls
- requirements of different shutdowns as appropriate to the purification process and workplace production requirements, including:
  - emergency and routine shutdowns
  - procedures to follow in the event of a power outage
- isolation, lock out and tag out procedures and responsibilities
- procedures and responsibility for reporting production and performance information
- environmental issues and controls relevant to the purification process, including waste/rework collection and handling procedures related to the process
- basic operating principles of process control, including the relationship between control panels and systems and the physical equipment
- routine maintenance procedures for operating a purification process
- cleaning and sanitation procedures for operating a purification process.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - a grain processing workplace or an environment that accurately represents workplace conditions
- resources, equipment and materials:
  - personal protective equipment required to set up, operate, adjust and shut down a separation and grading process to remove particles of bran
  - production schedule and batch instructions
  - purification process and related equipment and services
  - materials to be purified
  - cleaning procedures, materials and equipment as required
- specifications:

- work procedures, including advice on safe work practices, food safety, quality and environmental requirements.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volumes, including Implementation Guides, are available at VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## FBPGRA2006 Operate a scalping and grading process

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package version 1.0.

### Application

This unit of competency describes the skills and knowledge required to set up, operate, adjust and shut down a production process for the separation of the break stock (chop) into appropriate flows to the next break, purifiers and sizing rolls.

This unit applies to individuals who work in a stockfeed production environment. It typically targets the production worker responsible for applying basic operating principles to the operation and monitoring of equipment and processes used for scalping and grading stock.

All work must be carried out to comply with workplace procedures, in accordance with State/Territory work health and safety legislation that apply to the workplace.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

### Pre-requisite Unit

Nil

### Unit Sector

Grain processing (GRA)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare the scalping and grading equipment and process for operation	1.1 Confirm materials are available according to operating requirements 1.2 Identify and ensure cleaning and maintenance requirements have

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	<p>been met according to food safety requirements</p> <p>1.3 Select, fit and use personal protective equipment</p> <p>1.4 Fit and adjust machine components and related attachments according to operating requirements</p> <p>1.5 Enter processing or operating parameters to meet safety and production requirements</p> <p>1.6 Check and adjust equipment to ensure optimum performance</p> <p>1.7 Carry out pre-start checks according to operator instructions</p>
2. Operate and monitor the scalping and grading process	<p>2.1 Start and operate the process according to work health and safety and operating procedures</p> <p>2.2 Monitor equipment to identify variation in operating conditions</p> <p>2.3 Identify variation in equipment operation and report maintenance requirements</p> <p>2.4 Ensure that specifications are being at each stage according to production specifications</p> <p>2.5 Identify, rectify or report out-of-specification product and process outcomes according to workplace procedures</p> <p>2.6 Maintain the work area according to work health and safety and operating procedures</p> <p>2.7 Maintain workplace records according to workplace procedures</p>
3. Shut down the scalping and grading process	<p>3.1 Identify the appropriate shutdown procedure</p> <p>3.2 Shut down the process safely according to operating procedures</p> <p>3.3 Identify and report maintenance requirements according to workplace procedures</p>

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
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Skill	Description
Reading	<ul style="list-style-type: none"> <li>Interpret directions for the safe operation of equipment</li> </ul>
Writing	<ul style="list-style-type: none"> <li>Record equipment failure on paper-based and electronic media</li> <li>Record maintenance requirements on paper-based and electronic media</li> </ul>
Numeracy	<ul style="list-style-type: none"> <li>Monitor supply and flow of materials to and from the scalping and grading process</li> <li>Interpret gauges for monitoring equipment operation</li> </ul>
Navigate the world of work	<ul style="list-style-type: none"> <li>Apply workplace procedures to own role and responsibilities</li> <li>Understand tasks and responsibilities required for performing own role in the workplace</li> <li>Ask questions to clarify understanding or seek further information</li> </ul>
Interact with others	<ul style="list-style-type: none"> <li>Use oral communication skills as specified by the organisation, including questioning, active listening, asking for clarification and seeking advice from supervisor</li> <li>Communicate and report operational and safety information to relevant personnel</li> </ul>
Get the work done	<ul style="list-style-type: none"> <li>Maintain a clean and hazard-free work area</li> <li>Maintain hygiene standards and wear required personal protective equipment</li> <li>Identify faults and related causes, including signs and symptoms of faulty equipment and early warning signs of potential problems</li> <li>Maintain quality requirements for the sanitisation and use of equipment</li> </ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPGRA2006 Operate a scalping and grading process	FDFGR2006A Operate a scalping and grading process	Updated to meet Standards for Training Packages	Equivalent unit

## Links

Companion Volumes, including Implementation Guides, are available at VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>



## Assessment Requirements for FBPGRA2006 Operate a scalping and grading process

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package version 1.0.

### Performance Evidence

An individual demonstrating competency must satisfy all of the elements and performance criteria in this unit.

There must be evidence that, on at least one occasion, the individual has:

- conducted pre-start checks on machinery used for scalping and grading
- started, operated, monitored and adjusted process equipment for the separation of the break stock (chop) into appropriate flows to the next break, purifiers and sizing rolls to achieve required quality outcomes
- selected, fitted and used personal protective equipment
- taken corrective action in response to typical faults and inconsistencies
- completed workplace records as required
- applied safe work practices and identified work health and safety hazards and controls
- safely shut down equipment
- applied food safety procedures to work practices.

### Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- purpose and basic principles of the scalping and grading process
- basic operating principles of equipment, including:
  - main equipment components
  - status and purpose of guards
  - equipment operating capacities and applications
  - the purpose and location of sensors and related feedback instrumentation
- services required and action to take if services are not available
- the flow of the scalping and grading process and the effect of outputs on downstream flour milling processes
- quality characteristics to be achieved by the scalping and grading process

- quality requirements of materials and effect of variation on scalping and grading process performance
- operating requirements and parameters and corrective action required where operation is outside specified operating parameters
- typical equipment faults and related causes, including:
  - signs and symptoms of faulty equipment
  - early warning signs of potential problems
- methods used to monitor the scalping and grading production process, including inspecting, measuring and testing as required by the process
- inspection or test points (control points) in the scalping and grading process and the related procedures and recording requirements
- contamination and food safety risks associated with the scalping and grading process and related control measures
- common causes of variation and corrective action required
- work health and safety hazards and controls
- requirements of different shutdowns as appropriate to the scalping and grading process and workplace production requirements, including:
  - emergency and routine shutdowns
  - procedures to follow in the event of a power outage
- isolation, lock out and tag out procedures and responsibilities
- procedures and responsibility for reporting production and performance information
- environmental issues and controls relevant to the scalping and grading process, including waste and re-work collection and handling procedures
- basic operating principles of process control, including the relationship between control panels and systems and the physical equipment
- routine maintenance procedures for operating a scalping and grading process
- cleaning and sanitation procedures for operating a scalping and grading process.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - a workplace or an environment that accurately represents workplace conditions
- resources, equipment and materials:
  - personal protective clothing and equipment required for operation and monitoring of equipment and processes used for scalping and grading stock
  - production schedule and batch instructions
  - scalping and grading process and related equipment and services
  - stock required for the scalping and grading process
  - cleaning procedures, materials and equipment as required
- specifications:



- work procedures, including advice on safe work practices, food safety, quality and environmental requirements
- information on equipment capacity and operating parameters.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volumes, including Implementation Guides, are available at VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## FBPGRA2007 Operate a scratch and sizing process

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package version 1.0.

### Application

This unit of competency describes the skills and knowledge required to set up, operate, adjust and shut down a separation process to ensure as little bran as possible is in the remaining endosperm.

This unit applies to individuals who work in a stockfeed production environment. It typically targets the production worker responsible for applying basic operating principles to the operation and monitoring of scratch and sizing equipment and processes

All work must be carried out to comply with workplace procedures, in accordance with State/Territory work health and safety legislation that apply to the workplace.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

### Pre-requisite Unit

Nil

### Unit Sector

Grain processing (GRA)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare the scratch and sizing equipment and process for operation	1.1 Confirm materials are available according to operating requirements 1.2 Identify and confirm cleaning and maintenance requirements have

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	<p>been met according to food safety requirements</p> <p>1.3 Select, fit and use personal protective equipment</p> <p>1.4 Fit and adjust machine components and related attachments according to operating requirements</p> <p>1.5 Enter processing or operating parameters to meet safety and production requirements</p> <p>1.6 Check and adjust equipment to ensure optimum performance</p> <p>1.7 Carry out pre-start checks according to operator instructions</p>
2. Operate and monitor the scratch and sizing process	<p>2.1 Start and operate the process according to work health and safety and operating procedures</p> <p>2.2 Monitor equipment to identify variation in operating conditions</p> <p>2.3 Identify variation in equipment operation and report maintenance requirements</p> <p>2.4 Confirm that specifications are met at each stage according to product specifications</p> <p>2.5 Identify, rectify or report out-of-specification product and process outcomes according to workplace procedures</p> <p>2.6 Maintain the work area according to work health and safety and operating procedures</p> <p>2.7 Maintain workplace records according to workplace procedures</p>
3. Shut down the scratch and sizing process	<p>3.1 Identify the appropriate shutdown procedure</p> <p>3.2 Shut down the process safely according to operating procedures</p> <p>3.3 Identify and report maintenance requirements according to workplace procedures</p>

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
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Skill	Description
Reading	<ul style="list-style-type: none"> <li>Interpret directions for the safe operation of equipment</li> </ul>
Writing	<ul style="list-style-type: none"> <li>Report equipment failure on paper-based and electronic media</li> <li>Record out-of-specification product on paper-based and electronic media</li> </ul>
Numeracy	<ul style="list-style-type: none"> <li>Monitor supply and flow of materials to and from the scratch and sizing process</li> </ul>
Navigate the world of work	<ul style="list-style-type: none"> <li>Apply workplace procedures to own role and responsibilities</li> <li>Understand tasks and responsibilities required for performing own role in the workplace</li> <li>Ask questions to clarify understanding or seek further information</li> </ul>
Interact with others	<ul style="list-style-type: none"> <li>Use oral communication skills as specified by the organisation, including questioning, active listening, asking for clarification and seeking advice from supervisor</li> <li>Communicate and report operational and safety information to relevant personnel</li> </ul>
Get the work done	<ul style="list-style-type: none"> <li>Maintain a clean and hazard-free work area</li> <li>Maintain hygiene standards and wear required personal protective equipment</li> <li>Identify faults and related causes, including signs and symptoms of faulty equipment and early warning signs of potential problems</li> <li>Maintain quality requirements for the sanitisation and use of equipment</li> </ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPGRA2007 Operate a scratch and sizing process	FDFGR2007A Operate a scratch and sizing process	Updated to meet Standards for Training Packages	Equivalent unit

## Links

Companion Volumes, including Implementation Guides, are available at VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# Assessment Requirements for FBPGRA2007 Operate a scratch and sizing process

## Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package version 1.0.

## Performance Evidence

An individual demonstrating competency must satisfy all of the elements and performance criteria in this unit.

There must be evidence that, on at least one occasion, the individual has:

- conducted pre-start checks on machinery used for scratching and sizing
- selected, fitted and used personal protective equipment
- started, operated, monitored and adjusted process equipment to ensure as little bran as possible is in the remaining endosperm to achieve required quality outcomes
- taken corrective action in response to typical faults and inconsistencies
- completed workplace records
- applied safe work practices and identified work health and safety hazards and controls
- safely shut down equipment
- applied food safety procedures to work practices.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- purpose and basic principles of the scratch and sizing process
- basic operating principles of equipment, including:
  - main equipment components
  - status and purpose of guards
  - equipment operating capacities and applications
  - the purpose and location of sensors and related feedback instrumentation
- services required and action to take if services are not available
- the flow of the scratch and sizing process and the effect of outputs on downstream flour milling processes
- quality characteristics to be achieved by the scratch and sizing process

- quality requirements of materials and effect of variation on scratch and sizing process performance
- operating requirements and parameters, and corrective action required when operation is outside specified operating parameters
- typical equipment faults and related causes, including:
  - signs and symptoms of faulty equipment
  - early warning signs of potential problems
- methods used to monitor the scratch and sizing production process, including inspecting, measuring and testing as required by the process
- inspection or test points (control points) in the scratch and sizing process and the related procedures and recording requirements
- contamination and food safety risks associated with the scratch and sizing process and related control measures
- common causes of variation and corrective action required
- work health and safety hazards and controls, including the limitations of protective clothing and equipment relevant to the work process
- requirements of different shutdowns as appropriate to the scratch and sizing process and workplace production requirements, including:
  - emergency and routine shutdowns
  - procedures to follow in the event of a power outage
- isolation, lock out and tag out procedures and responsibilities
- procedures and responsibility for reporting production and performance information
- environmental issues and controls relevant to the scratch and sizing process, including waste and rework collection and handling procedures related to the process
- basic operating principles of process control, including the relationship between control panels and systems and the physical equipment
- routine maintenance procedures for operating a scratch and sizing process
- cleaning and sanitation procedures for operating a scratch and sizing process.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - a grain processing workplace or an environment that accurately represents workplace conditions
- resources, equipment and materials:
  - personal protective clothing and equipment required for a stockfeed production environment
  - production schedule and batch instructions
  - specifications, control points and processing parameters
  - scratch and sizing process and related equipment and services
  - stock required for the scratch and sizing process
  - cleaning procedures, materials and equipment

- specifications:
  - work procedures, including advice on safe work practices, food safety, quality and environmental requirements
  - information on equipment capacity and operating parameters.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volumes, including Implementation Guides, are available at VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## FBPGRA2008 Operate a break roll process

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package version 1.0.

### Application

This unit of competency describes the skills and knowledge required to set up, operate, adjust and shut down a process to separate bran from the endosperm.

This unit applies to individuals who work in a grain processing production environment. It typically targets the production worker responsible for applying basic operating principles to the operation and monitoring of break roll equipment and processes.

All work must be carried out to comply with workplace procedures, in accordance with State/Territory work health and safety legislation that apply to the workplace.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

### Pre-requisite Unit

Nil

### Unit Sector

Grain processing (GRA)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare the break roll equipment and process for operation	1.1 Confirm materials are available according to operating requirements 1.2 Identify and ensure cleaning and maintenance requirements have been met according to food safety requirements



Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	1.3 Select, fit and use personal protective equipment 1.4 Fit and adjust machine components and related attachments according to operating requirements 1.5 Enter processing or operating parameters to meet safety and production requirements 1.6 Check and adjust equipment to ensure optimum performance 1.7 Carry out pre-start checks according to operator instructions
2. Operate and monitor the break roll process	2.1 Start and operate the process according to work health and safety and operating procedures 2.2 Monitor equipment to identify variation in operating conditions 2.3 Identify variation in equipment operation and report maintenance requirements 2.4 Confirm that specifications are met at each stage according to product specifications 2.5 Identify, rectify or report out-of-specification product or process outcomes according to workplace procedures 2.6 Maintain the work area according to work health and safety and operating procedures 2.7 Maintain workplace records according to workplace procedures
3. Shut down the break roll process	3.1 Identify the appropriate shutdown procedure 3.2 Shut down the process safely according to operating procedures 3.3 Identify and report maintenance requirements according to workplace procedures

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"> <li>Interpret directions for the safe operation of equipment</li> </ul>

Skill	Description
Writing	<ul style="list-style-type: none"> <li>Report equipment failure on paper-based and electronic media</li> <li>Record maintenance requirements on paper-based and electronic media</li> </ul>
Numeracy	<ul style="list-style-type: none"> <li>Interpret gauges for monitoring equipment operation</li> </ul>
Navigate the world of work	<ul style="list-style-type: none"> <li>Apply workplace procedures to own role and responsibilities</li> <li>Understand tasks and responsibilities required for performing own role in the workplace</li> <li>Ask questions to clarify understanding or seek further information</li> </ul>
Interact with others	<ul style="list-style-type: none"> <li>Use oral communication skills as specified by the organisation, including questioning, active listening, asking for clarification and seeking advice from supervisor</li> <li>Communicate and report operational and safety information to relevant personnel</li> </ul>
Get the work done	<ul style="list-style-type: none"> <li>Maintain a clean and hazard-free work area</li> <li>Maintain hygiene standards and wear required personal protective equipment</li> <li>Identify faults and related causes, including signs and symptoms of faulty equipment and early warning signs of potential problems</li> <li>Maintain quality requirements for the sanitisation and use of equipment</li> </ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPGRA2008 Operate a break roll process	FDFGR2008A Operate a break roll process	Updated to meet Standards for Training Packages	Equivalent unit

## Links

Companion Volumes, including Implementation Guides, are available at VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# Assessment Requirements for FBPGRA2008 Operate a break roll process

## Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package version 1.0.

## Performance Evidence

An individual demonstrating competency must satisfy all of the elements and performance criteria in this unit.

There must be evidence that, on at least one occasion, the individual has:

- conducted pre-start checks on machinery and equipment used to separate bran from the endosperm
- selected, fitted and used personal protective equipment
- started, operated, monitored and adjusted process equipment to separate bran from the endosperm to achieve required quality outcomes
- taken corrective action in response to typical faults and inconsistencies
- completed workplace records
- applied safe work practices and identified work health and safety hazards and controls
- safely shut down equipment
- applied food safety procedures to work practices.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- purpose and basic principles of the break roll process, including how and why the endosperm separation takes place
- basic operating principles of equipment, including:
  - main equipment components
  - status and purpose of guards
  - equipment operating capacities and applications
  - the purpose and location of sensors and related feedback instrumentation
- services required and action to take if services are not available
- the flow of the break roll process and the effect of outputs on downstream processes
- quality characteristics to be achieved by the break roll process

- quality requirements of materials and effect of variation on break roll process performance, including the effect of moisture variation and related scope to adjust process throughput
- operating requirements and parameters and corrective action required where operation is outside specified operating parameters
- typical equipment faults and related causes, including:
  - signs and symptoms of faulty equipment
  - early warning signs of potential problems
  - symptoms of chokes, blockages or breaches and action required to clear
- methods used to monitor the break roll process, including inspecting, measuring and testing as required by the process
- inspection or test points (control points) in the break roll process and the related procedures and recording requirements
- contamination and food safety risks associated with the break roll process and related control measures
- common causes of variation and corrective action required
- work health and safety hazards and controls, including the limitations of protective clothing and equipment relevant to the work process
- requirements of different shutdowns as appropriate to the break roll process and workplace production requirements, including:
  - emergency and routine shutdowns
  - procedures to follow in the event of a power outage
- isolation, lock out and tag out procedures and responsibilities
- procedures and responsibility for reporting production and performance information
- environmental issues and controls relevant to the break roll process, including waste and rework collection and handling procedures related to the process
- basic operating principles of process control, including the relationship between control panels and systems and the physical equipment
- routine maintenance procedures for operating a break roll process
- cleaning and sanitation procedures for operating a break roll process.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - a grain processing workplace or an environment that accurately represents workplace conditions
- resources, equipment and materials:
  - personal protective clothing and equipment required for a grain processing production environment
  - production schedule and batch instructions
  - break roll process and related equipment and services
  - conditioned grain suitable for the break roll process

- specifications:
  - work procedures, including advice on safe work practices, food safety, quality and environmental requirements.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volumes, including Implementation Guides, are available at VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## FBPGRA2009 Operate a pelleting process

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package version 1.0.

### Application

This unit of competency describes the skills and knowledge required to set up, operate, adjust and shut down process equipment to compress mash into pellets and to finish pellets.

The unit applies to individuals who work in a stockfeed production environment. It typically targets the production worker responsible for applying basic operating principles to the operation and monitoring of pelleting equipment and processes.

All work must be carried out to comply with workplace procedures, in accordance with State/Territory work health and safety legislation that apply to the workplace.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

### Pre-requisite Unit

Nil

### Unit Sector

Grain processing (GRA)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare the pelleting equipment and process for operation	1.1 Confirm materials are available according to operating requirements 1.2 Identify and confirm cleaning and maintenance requirements have been met according to food safety requirements

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	1.3 Select, fit and use personal protective equipment 1.4 Fit and adjust machine components and related attachments according to operating requirements 1.5 Enter processing or operating parameters to meet safety and production requirements 1.6 Check and adjust equipment performance to ensure optimum 1.7 Carry out pre-start checks according to operator instructions
2. Operate and monitor the pelleting process	2.1 Start and operate the process according to work health and safety and operating procedures 2.2 Monitor equipment to identify variation in operating conditions 2.3 Identify variation in equipment operation and report maintenance requirements 2.4 Confirm that product specifications are being met at each stage according to production specifications 2.5 Identify, rectify or report out-of-specification product or process outcomes 2.6 Maintain the work area according to work health and safety and operating procedures 2.7 Maintain workplace records according to workplace procedures
3. Shut down the pelleting process	3.1 Identify the appropriate shutdown procedure 3.2 Shut down the process safely according to operating procedures 3.3 Identify and report maintenance requirements records according to workplace procedures

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"> <li>Interpret directions for the safe operation of equipment</li> </ul>

Skill	Description
Writing	<ul style="list-style-type: none"> <li>Record out-of-specification product on paper based and electronic media</li> <li>Record maintenance requirements on paper based and electronic media</li> </ul>
Numeracy	<ul style="list-style-type: none"> <li>Monitor supply of liquid ingredients to post-mixing process</li> <li>Interpret gauges for monitoring equipment operation</li> </ul>
Navigate the world of work	<ul style="list-style-type: none"> <li>Apply workplace procedures to own role and responsibilities</li> <li>Understand tasks and responsibilities required for performing own role in the workplace</li> <li>Ask questions to clarify understanding or seek further information</li> </ul>
Interact with others	<ul style="list-style-type: none"> <li>Use oral communication skills as specified by the organisation, including questioning, active listening, asking for clarification and seeking advice from supervisor</li> <li>Communicate and report operational and safety information to relevant personnel</li> </ul>
Get the work done	<ul style="list-style-type: none"> <li>Maintain a clean and hazard-free work area</li> <li>Maintain hygiene standards and wear required personal protective equipment</li> <li>Identify faults and related causes, including signs and symptoms of faulty equipment and early warning signs of potential problems</li> <li>Maintain quality requirements for the sanitisation and use of equipment</li> </ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPGRA2009 Operate a pelleting process	FDFGR2009A Operate a pelleting process	Updated to meet Standards for Training Packages	Equivalent unit

## Links

Companion Volumes, including Implementation Guides, are available at VETNet: - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>



# Assessment Requirements for FBPGRA2009 Operate a pelleting process

## Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package version 1.0.

## Performance Evidence

An individual demonstrating competency must satisfy all of the elements and performance criteria in this unit.

There must be evidence that, on at least one occasion, the individual has:

- conducted pre-start checks on machinery used for pelleting
- selected, fitted and used personal protective equipment
- started, operated, monitored and adjusted process equipment to compress mash into pellets and to finish pellets to achieve required quality outcomes
- taken corrective action in response to typical faults and inconsistencies
- completed workplace records as required
- applied safe work practices and identified work health and safety hazards and controls
- safely shut down equipment
- applied food safety procedures to work practices.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- purpose and basic principles of each part of the process, including volumetric metering, steam conditioning, pellet formation, cooling, crumbling and sieving and post-pelleting liquid addition
- basic operating principles of equipment, including:
  - main equipment components
  - status and purpose of guards
  - equipment operating capacities and applications
  - the purpose and location of sensors and related feedback instrumentation
- services required and action to take if services are not available
- basic operating principles of process control, including the relationship between control panels and systems and the physical equipment

- the flow of the pelleting process and the effect of outputs on downstream processes
- quality characteristics and uses of finished pellets
- effect of variation in inputs and/or services on process performance
- operating requirements and parameters, and corrective action required where operation is outside specified operating parameters
- the effect on final product of variation in variables, including:
  - pellet diameter to length ratios
  - oil and fat content
  - retention time and temperatures for steam conditioning, including consequences of temperatures that are too high and too low on chemical composition
  - retention time and temperature for liquid addition
- typical equipment faults and related causes, including:
  - signs and symptoms of faulty equipment
  - early warning signs of potential problems
- methods used to monitor the pelleting process, including inspecting, measuring and testing as required by the process
- inspection or test points (control points) in the process and the related procedures and recording requirements
- common causes of variation and corrective action required
- contamination risks related to the pelleting and pellet finishing process and related controls
- work health and safety hazards and controls, including the limitations of protective clothing and equipment relevant to the work process
- requirements of different shutdowns as appropriate to the process and workplace pelleting requirements, including:
  - emergency and routine shutdowns
  - procedures to follow in the event of a power outage
- isolation, lock out and tag out procedures and responsibilities
- procedures and responsibility for reporting production and performance information
- environmental issues and controls, including waste/rework collection and handling procedures
- routine maintenance procedures for operating a pelleting process
- cleaning and sanitation procedures for operating a pelleting process.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - a grain processing workplace or an environment that accurately represents workplace conditions
- resources, equipment and materials:
  - personal protective clothing and equipment required to stockfeed inputs and additives

- personal protective clothing and equipment required to set up, operate, adjust and shut down a separation process
- production schedule/batch instructions
- pelleting, pellet finishing and related equipment and services
- feed/mass to be pelleted
- specifications:
  - work procedures, including advice on safe work practices, food safety, quality and environmental requirements
  - information on equipment capacity and operating parameters.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volumes, including Implementation Guides, are available at VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## FBPGRA2010 Handle grain in a storage area

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package version 1.0.

### Application

This unit of competency describes the skills and knowledge required to handle grain in a storage area, including taking samples, segregating and moving grain in a manner that minimises dust and exposure to pests.

This unit applies to individuals who work in a grain processing environment for human or stock consumption. It typically targets the production worker responsible for applying basic operating principles to the storage of grain in permanent or temporary storage facilities.

All work must be carried out to comply with workplace procedures, in accordance with State/Territory work health and safety legislation that apply to the workplace.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

### Pre-requisite Unit

Nil

### Unit Sector

Grain processing (GRA)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Sample grain for testing	1.1 Select, fit and use personal protective equipment according to work health and safety and food safety requirements 1.2 Take representative samples of grain for testing according to

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	<p>workplace procedures and food safety requirements</p> <p>1.3 Prepare samples for despatch, including labelling and packaging according to food safety and workplace requirements</p>
2. Move grain into and out of storage	<p>2.1 Identify grain for handling and storage according to food safety and workplace requirements</p> <p>2.2 Select appropriate silo types and handling equipment for various grains in relation to their storage characteristics and flow properties</p> <p>2.3 Conduct pre-start checks on machinery and equipment used for grain storage and transfers</p> <p>2.4 Start, operate, monitor and adjust process equipment</p> <p>2.5 Segregate grain according to type, variety and quality characteristics and keep appropriate records</p> <p>2.6 Take steps to minimise pest infestation according to work health and safety and food safety requirements</p> <p>2.7 Move grain safely into and out of storage according to work health and safety and food safety requirements</p> <p>2.8 Check grain regularly during movement for contamination according to work health and safety and food safety requirements</p> <p>2.9 Clean storage and handling equipment thoroughly after emptying according to food safety requirements</p> <p>2.10 Dismantle temporary storages according to work health and safety and food safety requirements</p> <p>2.11 Implement suitable measures to minimise the effect of desiccant dusts on the flow properties of grain</p>
3. Shut down the grain cleaning process	<p>3.1 Identify the appropriate shutdown procedure</p> <p>3.2 Shut down the process safely according to operating procedures</p> <p>3.3 Identify and report maintenance requirements according to workplace procedures</p>

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"> <li>Interpret directions for the safe operation of equipment</li> </ul>
Writing	<ul style="list-style-type: none"> <li>Record out-of-specification results on paper-based and electronic media</li> </ul>
Numeracy	<ul style="list-style-type: none"> <li>Store grain to achieve volume and space requirements</li> <li>Determine equipment capacity and operating parameters</li> </ul>
Navigate the world of work	<ul style="list-style-type: none"> <li>Apply workplace procedures to own role and responsibilities</li> <li>Understand tasks and responsibilities required for performing own role in the workplace</li> <li>Ask questions to clarify understanding or seek further information</li> </ul>
Interact with others	<ul style="list-style-type: none"> <li>Use oral communication skills as specified by the organisation, including questioning, active listening, asking for clarification and seeking advice from supervisor</li> <li>Communicate and report operational and safety information to relevant personnel</li> </ul>
Get the work done	<ul style="list-style-type: none"> <li>Maintain a clean and hazard-free work area</li> <li>Maintain hygiene standards and wear required personal protective equipment</li> <li>Identify faults and related causes, including signs and symptoms of faulty equipment and early warning signs of potential problems</li> <li>Maintain quality requirements for the sanitisation and use of equipment</li> </ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPGRA2010 Handle grain in a storage area	FDFGR2010A Handle grain in a storage area	Updated to meet Standards for Training Packages	Equivalent unit

## Links

Companion Volumes, including Implementation Guides, are available at VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## Assessment Requirements for FBPGRA2010 Handle grain in a storage area

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package version 1.0.

### Performance Evidence

An individual demonstrating competency must satisfy all of the elements and performance criteria in this unit.

There must be evidence that, on at least one occasion, the individual has:

- taken required samples
- selected, fitted and used personal protective equipment
- conducted pre-start checks on machinery and equipment used for grain storage and transfers
- started, operated, monitored and adjusted process equipment
- recognised different grain types and varieties
- checked grain for pest and other contamination
- taken corrective action in response to typical faults and inconsistencies
- completed workplace records as required
- applied safe work practices and identified work health and safety hazards and controls
- safely shut down equipment
- applied food safety procedures to work practices where grain is intended for human consumption.

### Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- grain hygiene and sealing requirements
- grain varieties and types
- segregation requirements to maintain integrity and quality of grain
- flow of grain in storage area from receipt to despatch
- typical storage equipment faults and related causes, including:
  - signs and symptoms of faulty equipment
  - early warning signs of potential problems



- contamination and food safety risks associated with the grain storage process and related control measures
- work health and safety hazards and controls, including the limitations of protective clothing and equipment relevant to the work process
- requirements of different shutdowns as appropriate to the grain storage process and workplace requirements, including:
  - emergency and routine shutdowns
  - procedures to follow in the event of a power outage
- isolation, lock out and tag out procedures and responsibilities
- environmental issues and controls relevant to the grain storage process
- basic operating principles of process control, including the relationship between control panels and systems and the physical equipment
- routine maintenance procedures for handling grain in a storage area
- cleaning and sanitation procedures for handling grain in a storage area.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - a grain processing workplace or an environment that accurately represents workplace conditions
- resources, equipment and materials:
  - personal protective clothing and equipment required to handle grain in a storage area
  - grain storage and transfer equipment and services
  - materials required for the grain storage process
- specifications:
  - work procedures, including advice on safe work practices, food safety, quality and environmental requirements
  - storage and transfer instructions.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volumes, including Implementation Guides, are available at VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# FBPGRA2011 Receive grain for malting

## Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package version 1.0.

## Application

This unit of competency describes the skills and knowledge required to receive grain intended for malting from road, rail or sea transport, including checking of documentation, weighing, conducting pest, contamination and other initial checks, and placement of grain into storage.

The unit applies to operators in commercial malting plants who are responsible for receiving grain from farmers or agents for malting. The grain received in most cases will be barley but may also be wheat. The unit covers the grain receipt process where operators determine or work with others to determine if delivered grain should be accepted, including checking of documentation, sampling and testing, screening and storage.

All work must be carried out to comply with workplace procedures, in accordance with State/Territory work health and safety legislation that apply to the workplace.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

## Pre-requisite Unit

FBPGRA2010 Handle grain in a storage area

## Unit Sector

Grain processing (GRA)

## Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Receive grain from transport	1.1 Access and check delivery documentation according to workplace procedures

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	<p>1.2 Select, fit and use personal protective equipment according to work health and safety requirements</p> <p>1.3 Determine required tests for delivered grain from standard operating procedures, supervisor instruction or other source</p> <p>1.4 Test samples of grain for the required parameters to determine if the delivery is within specifications</p> <p>1.5 Follow procedures for rejected grain</p>
2. Weigh and screen accepted grain	<p>2.1 Off load grain from transport and route to screens</p> <p>2.2 Confirm equipment status and condition according to workplace procedures, including safety requirements</p> <p>2.3 Set up, start and monitor grain transfer and weighing equipment</p> <p>2.4 Pass intake grain through screens according to operating procedures</p> <p>2.5 Monitor size of grain corn according job specifications</p> <p>2.6 Follow dust control procedures according to workplace procedures, including safety requirements</p> <p>2.7 Pass grain through metal removal equipment according food safety requirements</p> <p>2.8 Weigh grain according to operating procedures</p>
3. Store intake grain	<p>3.1 Determine moisture and protein content of grain</p> <p>3.2 Route screened grain to batch bins or other containers</p>
4. Shut down process and complete work	<p>4.1 Identify the appropriate shutdown procedure</p> <p>4.2 Shut down the process safely according to operating procedures</p> <p>4.3 Clean and sanitise equipment according to according to work health and safety and food safety procedures</p> <p>4.4 Identify and report maintenance requirements according to workplace procedures</p>

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"> <li>Interpret enterprise procedures and specifications for receiving grain</li> <li>Interpret directions for the safe operation of equipment</li> </ul>
Writing	<ul style="list-style-type: none"> <li>Record product information on paper-based and electronic media</li> <li>Comply with procedures and responsibilities for reporting problems</li> </ul>
Numeracy	<ul style="list-style-type: none"> <li>Set up, start, operate and monitor grain transfer and weighing equipment</li> </ul>
Navigate the world of work	<ul style="list-style-type: none"> <li>Apply workplace procedures to own role and responsibilities</li> <li>Understand tasks and responsibilities required for performing own role in the workplace</li> <li>Ask questions to clarify understanding or seek further information</li> </ul>
Interact with others	<ul style="list-style-type: none"> <li>Use oral communication skills as specified by the organisation, including questioning, active listening, asking for clarification and seeking advice from supervisor</li> <li>Communicate and report operational and safety information to relevant personnel</li> </ul>
Get the work done	<ul style="list-style-type: none"> <li>Maintain a clean and hazard-free work area</li> <li>Maintain hygiene standards and wear required personal protective equipment</li> <li>Identify faults and related causes, including signs and symptoms of faulty equipment and early warning signs of potential problems</li> <li>Maintain quality requirements for the sanitisation and use of equipment</li> </ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPGRA2011 Receive grain for malting	FDFGR2011A Receive grain for malting	Updated to meet Standards for Training Packages	Equivalent unit

## Links

Companion Volumes, including Implementation Guides, are available at VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# Assessment Requirements for FBPGRA2011 Receive grain for malting

## Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package version 1.0.

## Performance Evidence

An individual demonstrating competency must satisfy all of the elements and performance criteria in this unit.

There must be evidence that, on at least one occasion, the individual has:

- accessed workplace information to identify grain receipt procedures, including:
  - specifications
  - required sampling and tests
  - reporting arrangements
- selected, fitted and used personal protective equipment
- confirmed equipment status and condition
- set up, started, operated and monitored grain transfer and weighing equipment
- undertaken sampling and testing of grain according to enterprise procedures
- applied enterprise procedures for rejection of out-of-specification grain
- monitored critical control points in work area
- applied dust control procedures in work area
- maintained workplace records
- applied safe work practices and identifying work health and safety hazards and controls.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- grain delivery arrangements and transport modes
- location and types of storage available for received grain
- enterprise procedures for rejected grain
- identification, avoidance and safe handling of accidental residues of insect treatment from ex-site storages, including phosphine bags
- other contamination avoidance and removal procedures, including:

- jewellery and loose objects in work area
- security and access procedures to work areas
- pest control procedures
- metal and other foreign objects detection and removal
- dust control procedures for receipt of grain
- cleaning requirements associated with changeovers and types of shutdowns
- procedures for reporting problems
- work health and safety hazards and controls relevant to receipt of grain
- sampling and testing procedures for grain receipt
- cleaning and sanitation procedures for grain receipt.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - a grain processing workplace or an environment that accurately represents workplace conditions
- resources, equipment and materials:
  - personal protective clothing and equipment required to receive grain for malting
- specifications:
  - work procedures including advice on safe work practices, food safety and environmental requirements
  - information on specifications, control points and grain handling procedures.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volumes, including Implementation Guides, are available at VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## FBPGRA2012 Prepare malted grain

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package version 1.0.

### Application

This unit of competency describes the skills and knowledge required to operate commercial equipment associated with preparing malted barley or wheat. It covers operating and monitoring steeping, germinating, and kilning equipment.

The unit applies to operators in commercial malting plants who are responsible for converting stored grain into malted barley or wheat. These operators are often known as maltsters.

All work must be carried out to comply with workplace procedures, in accordance with State/Territory work health and safety legislation that apply to the workplace.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

### Pre-requisite Unit

FBPGRA2010 Handle grain in a storage area

### Unit Sector

Grain processing (GRA)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Steep grain	1.1 Identify work requirements with relevant personnel 1.2 Select, fit and use personal protective equipment according to work health and safety requirements 1.3 Confirm equipment status and condition



Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	<p>1.4 Set up, start and monitor equipment according to operating procedures</p> <p>1.5 Transfer grain from storage into steeping equipment according to workplace procedures</p> <p>1.6 Place hoses or other wetting equipment correctly to ensure uniform hydration and to avoid damage to grain</p> <p>1.7 Immerse, drain and rest grain for the specified number of cycles</p> <p>1.8 Monitor moisture content of grain during air resting to determine when it is ready for transfer to germination vessels</p> <p>1.9 Discharge wastewater to treatment or holding or other facilities according to workplace procedures</p>
2. Germinate grain	<p>2.1 Feed grain into germination vessel or floor according to workplace procedures</p> <p>2.2 Set up, operate and monitor turning and air blowing equipment to meet safety and production requirements</p> <p>2.3 Monitor green grain for humidity, temperature, moisture, chitting or acrospires, and general condition</p> <p>2.4 Adjust rate of turning, humidity and temperature according to specifications for malt type</p> <p>2.5 Transfer modified green grain to kiln according to specifications for malt type and results of laboratory testing</p>
3. Operate kiln to produce malt	<p>3.1 Conduct first drying of modified grain</p> <p>3.2 Confirm germination has stopped according to workplace procedures</p> <p>3.3 Cure modified grain through correct combination of air flow and heat for malt product specification</p> <p>3.4 Confirm colour, moisture content and other required specifications</p> <p>3.5 Clean the malt according to workplace procedures and food safety requirements</p> <p>3.6 Transfer separated culm to storage according to workplace procedures</p> <p>3.7 Transfer malt to storage according to workplace procedures</p>
4. Shut down process and complete work	<p>4.1 Identify the appropriate shutdown procedure</p>

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	<p>4.2 Shut down the process safely according to operating procedures</p> <p>4.3 Clean and sanitise equipment according to work health and safety and food safety procedures</p> <p>4.4 Identify and report maintenance requirements according to workplace procedures</p>

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"> <li>Interpret workplace environmental procedures and controls</li> <li>Interpret waste handling requirements and procedures</li> <li>Interpret directions for the safe operation of equipment</li> </ul>
Writing	<ul style="list-style-type: none"> <li>Record production data on paper-based and electronic media</li> <li>Record equipment failure on paper-based and electronic media</li> </ul>
Numeracy	<ul style="list-style-type: none"> <li>Identify batch and recipe specifications and seek assistance and relevant approvals</li> <li>Achieve specified moisture content in grain through correct combinations of water and air steeping cycles</li> <li>Correctly adjust kiln heat settings for drying or curing and for different types and grades of barley and malt</li> </ul>
Navigate the world of work	<ul style="list-style-type: none"> <li>Apply workplace procedures to own role and responsibilities</li> <li>Understand tasks and responsibilities required for performing own role in the workplace</li> <li>Ask questions to clarify understanding or seek further information</li> </ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPGRA2012	FDFGR2012A	Updated to meet	Equivalent unit

Code and title current version	Code and title previous version	Comments	Equivalence status
Prepare malted grain	Prepare malted grain	Standards for Training Packages	

## Links

Companion Volumes, including Implementation Guides, are available at VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# Assessment Requirements for FBPGRA2012 Prepare malted grain

## Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package version 1.0.

## Performance Evidence

An individual demonstrating competency must satisfy all of the elements and performance criteria in this unit.

There must be evidence that the individual has operated commercial equipment associated with preparing malted barley or wheat, on at least one occasion, that includes:

- accessed workplace information and consulted with relevant personnel to identify batch requirements for steeping, germination, kilning and malt cleaning processes
- selected, fitted and used personal protective equipment
- confirmed equipment status and condition
- set up, started and monitored grain transfer equipment
- controlled absorption of water by grain during steeping to achieve specified water content
- supplied fresh air, heating, cooling and ventilation to specification during germination
- safely started and operated kilns to different heat requirements
- undertaken sampling and testing during steeping, germination and cleaning to determine if grain and malt is within specifications
- monitored critical control points in work area
- applied dust control procedures in work area
- applied safe work practices and identified work health and safety hazards and controls
- maintained workplace records
- safely shut down equipment
- applied food safety procedures to work practices.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- changes to grain from the steeping process
- changes in grain during germination
- role of humidity and temperature in initiating and controlling germination of grain

- common variations in grain quality and type
- common customer malt 'recipes' used in the enterprise and implications for malt production
- standard transfer times between stages, including receiving to steeping, steeping to germination, and germination to kilning
- procedures for dealing with contingencies, breakdowns and other non-standard events for preparing malted grain
- contamination avoidance procedures for preparing malted grain, including:
  - jewellery and loose objects in work area
  - security and access procedures to work areas
  - pest control procedures
- appearance of grains before and after cleaning (deculming)
- cleaning requirements associated with changeovers and types of shutdowns for preparing malted grain
- purpose of moisture and acrospires testing within the malting process
- work health and safety hazards and controls relevant to preparing malted grain
- equipment cleaning and sanitation procedures relevant to preparing malted grain.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - a grain processing workplace or an environment that accurately represents workplace conditions
- resources, equipment and materials:
  - personal protective clothing and equipment required to operate commercial equipment associated with preparing malted barley or wheat
  - steeping, germination, kilning and deculming equipment and control points - steeping, germination, kilning equipment may be separate or combined
  - malted grain cleaning equipment
- specifications:
  - work procedures including advice on safe work practices, food safety and environmental requirements
  - steeping, germination and kilning specifications and procedures for at least two different malts.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volumes, including Implementation Guides, are available at VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## FBPGRA2013 Blend and dispatch malt

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package version 1.0.

### Application

This unit of competency describes the skills and knowledge required to operate commercial equipment associated with blending malted barley or wheat to specifications and dispatching wheat to customers.

This unit applies to operators in commercial malting plants who are responsible for blending malted barley or wheat and then dispatching the malt to customers. These operators are often known as maltsters.

All work must be carried out to comply with workplace procedures, in accordance with State/Territory work health and safety legislation that apply to the workplace.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

### Pre-requisite Unit

Nil

### Unit Sector

Grain processing (GRA)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Blend malt to specification	1.1 Obtain blend specification from management or other source 1.2 Select, fit and use personal protective equipment according to safety requirements

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	1.3 Confirm availability of source malts and storage locations according to operating requirements 1.4 Confirm equipment status and condition according to work health and safety and food safety procedures 1.5 Set up, start and monitor blending equipment and controls to achieve desired ratio and volume 1.6 Transfer blended malt to storage according to workplace procedures
2. Dispatch malt	2.1 Obtain customer order or other dispatch authority 2.2 Confirm availability of order volume and blend of malt to meet safety and production requirements 2.3 Confirm availability of conveyor or dispatch transport and position if required 2.4 Conduct pre-delivery sampling and tests according to specifications 2.5 Screen and dispatch malt for dispatch to transport 2.6 Make record of dispatch according to workplace procedures
3. Shut down process and complete work	3.1 Identify the appropriate shutdown procedure 3.2 Shut down the process safely according to operating procedures 3.3 Clean and sanitise equipment according to work health and safety and food safety procedures 3.4 Identify and report maintenance requirements according to workplace procedures

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"> <li>Interpret environmental procedures and controls</li> <li>Interpret directions for the safe operation of equipment</li> </ul>



Skill	Description
Writing	<ul style="list-style-type: none"> <li>Record equipment failure on paper-based and electronic media</li> <li>Record maintenance requirements on paper-based and electronic media</li> </ul>
Numeracy	<ul style="list-style-type: none"> <li>Monitor supply and flow of materials for blending malted barley or wheat</li> <li>Interpret gauges for monitoring equipment operation</li> </ul>
Navigate the world of work	<ul style="list-style-type: none"> <li>Apply workplace procedures to own role and responsibilities</li> <li>Understand tasks and responsibilities required for performing own role in the workplace</li> <li>Ask questions to clarify understanding or seek further information</li> </ul>
Interact with others	<ul style="list-style-type: none"> <li>Use oral communication skills as specified by the organisation, including questioning, active listening, asking for clarification and seeking advice from supervisor</li> <li>Communicate and report operational and safety information to relevant personnel</li> </ul>
Get the work done	<ul style="list-style-type: none"> <li>Undertake required corrective actions in the event of variation to blend specifications and operating parameters</li> <li>Deal with contingencies, breakdowns and other non-standard events</li> <li>Maintain a clean and hazard-free work area</li> <li>Maintain hygiene standards and wear required personal protective equipment</li> <li>Maintain quality requirements for the sanitisation and use of equipment</li> </ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPGRA2013 Blend and dispatch malt	FDFGR2013A Blend and dispatch malt	Updated to meet Standards for Training Packages	Equivalent unit

## Links

Companion Volumes, including Implementation Guides, are available at VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>



# Assessment Requirements for FBPGRA2013 Blend and dispatch malt

## Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package version 1.0.

## Performance Evidence

An individual demonstrating competency must satisfy all of the elements and performance criteria in this unit.

There must be evidence, on at least one occasion, that the individual has:

- accessed workplace information to identify blending requirements
- accessed workplace information to identify malt dispatch requirements, including malt type and amount, mode of transport, and screening and testing requirements
- selected, fitted and used personal protective equipment
- confirmed equipment status and condition
- set up, started and monitored blending equipment
- undertaken required sampling and testing during blending and dispatch
- monitored critical control points in work area
- maintained workplace records
- applied safe work practices and identified work health and safety hazards and controls
- safely shut down equipment
- applied food safety procedures to work practices.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- common terms for malt types and blends
- malts used in the enterprise and their relationship to blends required by customers
- purpose and basic principles of the blending process
- basic operating principles of equipment used to blend and dispatch malt, including main equipment components, equipment operating capacities and applications
- loading techniques for modes of dispatch used in the workplace
- cleaning requirements associated with changeovers and types of shutdowns for blending and dispatching malt

- procedures for dealing with contingencies, breakdowns and other non-standard events relevant to blending and dispatching malt
- contamination avoidance procedures relevant to blending and dispatching malt, including:
  - jewellery and loose objects in work area
  - security and access procedures to work areas
  - pest control procedures
- sampling and testing procedures for blending and dispatching malt
- cleaning and sanitation procedures relevant to the production process for blending and dispatching of malt.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - a grain processing workplace or an environment that accurately represents workplace conditions
- resources, equipment and materials:
  - personal protective clothing and equipment required for operators in commercial malting plants
  - malt of different types for blending
  - blending equipment
  - dispatch and malt transport equipment
- specifications:
  - work procedures including advice on safe work practices, food safety and environmental requirements.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volumes, including Implementation Guides, are available at VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## FBPGRA2014 Operate a rice vitamin enrichment process

### Modification History

Release	Comments
Release 1	This version released with the FBP Food, Beverage and Pharmaceuticals Training Package Version 1.0

### Application

This unit of competency describes the skills and knowledge required to operate a rice vitamin enrichment process.

The unit applies to individuals who are production workers in a rice processing environment responsible for applying operating principles under general supervision with limited autonomy and accountability.

All work must be carried out to comply with workplace procedures, in accordance with State/Territory food safety, and work health and safety, regulations and legislation that apply to the workplace.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

### Pre-requisite Unit

Nil

### Unit Sector

Grain processing (GRA)

### Elements and Performance Criteria

Elements	Performance criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare the rice vitamin enrichment process for operation	1.1 Ensure raw materials are available to meet operating requirements 1.2 Identify and confirm the status of cleaning and maintenance requirements

Elements	Performance criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	1.3 Fit and adjust machine components and related attachments according to operating requirements 1.4 Enter processing/operating parameters to meet safety and production requirements 1.5 Check, adjust and conduct routine maintenance on equipment to ensure required performance 1.6 Conduct pre-start checks according to workplace instructions 1.7 Select and fit personal protection equipment
2. Operate and monitor the rice vitamin enrichment process	2.1 Start and operate process according to workplace procedures 2.2 Monitor equipment to identify variation in operating conditions 2.3 Identify variation in equipment operation, and report maintenance requirements according to workplace reporting procedures 2.4 Ensure enriched product meets specifications 2.5 Store vitamin enriched product according to food safety requirements 2.6 Identify, rectify or report out-of-specification product/process to maintain process within specification 2.7 Ensure workplace meets housekeeping standards 2.8 Maintain workplace records according to workplace recording requirements
3. Shut down the rice vitamin enrichment process	3.1 Identify appropriate shutdown procedure 3.2 Shut down the process safely according to workplace procedures 3.3 Identify maintenance requirements, and report according to workplace procedures

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skills	Description
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Reading	<ul style="list-style-type: none"> <li>Interprets and consolidates test results and data from a range of sources, relevant to vitamin enrichment requirements</li> </ul>
Writing	<ul style="list-style-type: none"> <li>Prepares records and basic reports using clear language, correct spelling and terminology, and accuracy of information</li> </ul>
Numeracy	<ul style="list-style-type: none"> <li>Performs basic mathematical calculations to determine weights and measures for product enrichment process</li> </ul>
Oral communication	<ul style="list-style-type: none"> <li>Uses clear language, concepts, tone and pace appropriate when reporting to others</li> </ul>
Navigate the world of work	<ul style="list-style-type: none"> <li>Complies with explicit policies and workplace procedures, and explores and implements, where identified, the implicit expectations</li> </ul>
Interact with others	<ul style="list-style-type: none"> <li>Identifies and takes steps to follow a limited range of accepted communication practices and protocols in a work environment</li> </ul>
Get the work done	<ul style="list-style-type: none"> <li>Makes low-impact decisions within familiar situations, based on a range of predefined or routine solutions, and evaluates the effectiveness of the outcome</li> <li>Responds to predictable routine problems, and implements standard or logical solutions</li> <li>Uses the main features and functions of digital tools to complete work tasks and access information</li> </ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPGRA2014 Operate a rice vitamin enrichment process	ZRGRPVE2A Operate a rice vitamin enrichment process	Updated to meet Standards for Training Packages  Minor changes to performance criteria	Equivalent unit

## Links

Companion Volumes, including Implementation Guides, are available at VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## Assessment Requirements for FBPGRA2014 Operate a rice vitamin enrichment process

### Modification History

Release	Comments
Release 1	This version released with the FBP Food, Beverage and Pharmaceuticals Training Package Version 1.0

### Performance Evidence

An individual demonstrating competency in this unit must satisfy all of the elements and performance criteria of this unit.

There must be evidence that the individual has set up, operated, adjusted and shut down a rice vitamin enrichment process on at least three occasions, including:

- accessed workplace information to identify rice vitamin enrichment processing requirements
- confirmed supply of necessary materials and services
- conducted pre-start checks, started, operated, monitored and adjusted process equipment to achieve required outcomes
- selected, fitted and used personal protective equipment
- followed workplace health and safety procedures
- monitored control points and conducted inspections to confirm process remains within specification
- took corrective action in response to out-of-specification results
- monitored supply and flow of materials to and from the rice vitamin enrichment process
- responded to and/or reported equipment failure within level of responsibility
- completed workplace records according to procedures
- maintained work area to meet housekeeping standards.

### Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- purpose and basic principles of the rice vitamin enrichment process, including:
  - understanding of the ingredients and additives used
  - understanding the role of each ingredient and additive in the final product
  - process flow and the effect of rice vitamin enrichment process on the end product
  - product handling and storage requirements



- additives and raw materials/ingredients combined to create a finished product
- materials used in vitamin enrichment, including:
  - additives
  - ingredients
  - chemicals
  - long or medium grain
  - broken
- basic operating principles of equipment, including:
  - basic operating principles of mixers, sieves, weighing equipment, raw materials transfer equipment and drying equipment
  - an operational understanding of main equipment components
  - status and purpose of guards
  - equipment operating capacities and applications
  - purpose and location of sensors and related feedback instrumentation
  - services required and action to take if services are not available
  - inspection of equipment condition to identify any signs of wear
  - appropriate settings and/or related parameters
  - isolation or lock-out procedures
  - confirming that equipment is clean and correctly configured for processing requirements
  - confirming that sensors and controls are correctly positioned
  - confirming that scheduled maintenance has been carried out
  - confirming that all safety guards are in place and operational
  - product/process changeover procedures and responsibilities
- quality characteristics, including:
  - common causes of product variation, and corrective action
  - requirements of materials and effect of variation in raw materials and/or rice variety on the rice vitamin enrichment preparation process
  - sampling and testing associated with process monitoring and control
- equipment operating requirements, parameters and corrective action required where operation is outside specified parameters, including:
  - identification of typical equipment faults and related causes
  - recognition of signs and symptoms of faulty equipment
  - early warning signs of potential problems
  - requirements of different shutdowns, including emergency and routine shutdowns, and procedures to follow in the event of a power outage
- methods used to monitor the rice vitamin enrichment process, including:
  - inspecting
  - measuring
  - testing
  - time/temperature

- flow rates
- contamination/food safety risks associated with the process, and related control measures
- cleaning and sanitation procedures
- work health and safety hazards and controls, including awareness of the limitations of protective clothing and equipment relevant to the work process
- isolation, lock-out and tag-out procedures and responsibilities
- procedures and responsibility for reporting production and performance information
- environmental issues and controls relevant to the process, including waste/rework collection and handling procedures related to the process.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - an industrial rice processing plant or an environment that accurately represents workplace conditions
- resources, equipment and materials:
  - personal protective clothing and equipment
  - rice vitamin enrichment equipment and services
  - raw materials required for the vitamin enrichment process
  - cleaning materials and equipment
- specifications:
  - work procedures, including advice on safe work practices, food safety, quality and environmental requirements
  - information on equipment capacity
  - equipment operating instructions, manuals and parameters
  - production schedule
  - specifications, control points and processing parameters
  - sampling schedules and test procedures and equipment
  - documentation and recording requirements and procedures
  - cleaning procedures.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volumes, including Implementation Guides, are available at VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## FBPGRA3001 Work with micronutrients or additions in stockfeed manufacturing processes

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package version 1.0.

### Application

This unit of competency describes the skills and knowledge required to select and use micronutrients and additives when undertaking stockfeed manufacturing.

This unit applies to individuals who handle, use and record micronutrients and additives used in stockfeed production.

All work must be carried out to comply with workplace procedures, in accordance with State/Territory work health and safety, and food safety regulations, legislation and standards that apply to the workplace.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

### Pre-requisite Unit

Nil

### Unit Sector

Grain processing (GRA)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Identify finish feed requirement	1.1 Identify product to be manufactured from production schedule, customer order or standard operating procedure (SOP) 1.2 Identify micronutrient or additive requirements from screen,

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	recipe, SOP or supervisor
2. Obtain correct micronutrient or other additive	2.1 Identify storage location for micronutrient or additive according to workplace requirements 2.2 Obtain micronutrient or additive according to SOP 2.3 Read micronutrient or additive label to determine any special mixing, handling or work health and safety requirements 2.4 Discuss with nutritionist and other professional and technical staff on micronutrients and additives requirements of stockfeed as required
3. Add micronutrient or additive to product	3.1 Match micronutrient or additive to product 3.2 Determine appropriate volume, measurement or proportion of micronutrient or additive 3.3 Undertake pre-mixing or other micronutrient or additive preparation procedures to meet safety and production requirements 3.4 Add micronutrient or additive to stockfeed at appropriate location and stage of production process to ensure product is manufactured according to specifications 3.5 Follow appropriate contamination, quality and sequencing procedures according to work health and safety and food safety procedures 3.6 Take stockfeed samples according to workplace procedures
4. Record use of micronutrient or additive	4.1 Record type and amount of micronutrient or additive used in required format 4.2 Generate correct product labels and add to product using required method

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"> <li>Interpret names of micronutrients and additives</li> </ul>

Skill	Description
	<ul style="list-style-type: none"> <li>Read and check information on labels to identify target and non-target species, dose/addition level, withholding period, expiry dates, storage and handling requirements, manufacturer name, product and active ingredient name</li> </ul>
Writing	<ul style="list-style-type: none"> <li>Record use of micronutrients and additives on paper-based and electronic media</li> </ul>
Numeracy	<ul style="list-style-type: none"> <li>Follow mixing and addition procedures for micronutrients and additives</li> <li>Use correct volume, measurements and proportions</li> </ul>
Navigate the world of work	<ul style="list-style-type: none"> <li>Interpret and follow regulatory requirements and seek clarification or other assistance when required</li> <li>Identify and describe own skills, knowledge and experience within context of job role</li> <li>Seek advice and feedback on current work performance</li> </ul>
Interact with others	<ul style="list-style-type: none"> <li>Liaise with professional and technical staff on micronutrients and additives requirements of stockfeed</li> <li>Use oral communication skills and language competence to fulfil the job role as specified by the organisation, including questioning, active listening, asking for clarification and seeking advice from supervisor</li> <li>Use appropriate vocabulary, including technical language directly relevant to role</li> <li>Ask questions to clarify understanding or seek further information</li> <li>Recognise personal strengths and challenges associated with interacting with others in the workplace</li> </ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPGRA3001 Work with micronutrients or additions in stockfeed manufacturing processes	FDFGR3001A Work with micronutrients or additions in stockfeed manufacturing processes	Updated to meet Standards for Training Packages	Equivalent unit

## Links

Companion Volumes, including Implementation Guides, are available at VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# Assessment Requirements for FBPGRA3001 Work with micronutrients or additions in stockfeed manufacturing processes

## Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package version 1.0.

## Performance Evidence

An individual demonstrating competency must satisfy all of the elements and performance criteria in this unit.

There must be evidence, on at least one occasion, that the individual has:

- identified and interpreted micronutrients and additives requirements from stockfeed recipes and production schedules
- related micronutrients and additives to correct stockfeed
- added micronutrient or additive to product following correct contamination, quality and sequencing procedures
- liaised with nutritionist and other professional and technical staff on micronutrients and additives requirements of stockfeed
- taken appropriate samples
- recorded use of micronutrient or additive
- generated correct labels
- applied safe work practices and identified work health and safety hazards and controls
- applied food safety procedures to work practices.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- contamination avoidance, quality and sequencing procedures when using micronutrients or additives in stockfeed manufacturing processes
- risk factors for cross-transference for stockfeed manufacturing
- preparation procedures required for using micronutrients and additives in stockfeed manufacturing
- sampling techniques for using micronutrients and additives in stockfeed manufacturing
- mathematical techniques to determine appropriate volume, measurement or proportion of micronutrient or additive in the manufacture of stockfeed

- withholding periods that may be required when manufacturing stockfeed
- work health and safety procedures for using micronutrients and additives in stockfeed manufacturing.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - a grain processing workplace or an environment that accurately represents workplace conditions
- resources, equipment and materials:
  - personal protective equipment relevant to stockfeed manufacturing in the workplace
  - sample micronutrients or additives
  - stockfeed product
  - sample product recording system
- specifications:
  - sample production schedule, customer order or standard operating procedures.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volumes, including Implementation Guides, are available at VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>



## FBPGRA3002 Apply knowledge of animal nutrition principles to stockfeed product

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package version 1.0.

### Application

This unit of competency describes the skills and knowledge required to identify animal nutrition principles required in stockfeed and confirm these requirements with nutritionists, and other technical and professional staff and customers.

This unit applies to stockfeed operators who are required to have knowledge of animal nutrition principles and the effect of stockfeed on animal performance. This knowledge would be applied in liaison with professional and technical staff on customer requirements and in liaison directly with customers.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

### Pre-requisite Unit

Nil

### Unit Sector

Grain processing (GRA)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Determine stockfeed requirements	1.1 Identify target species, animal type and phase of animal growth supported by stockfeed product 1.2 Confirm production purpose of animal raising and range of desired

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	products in consultation with the customer 1.3 Determine particle size, pellet quality and other factors affecting palatability for target animals 1.4 Identify impact of stockfeed on animal performance
2. Evaluate key quality factors affecting stockfeed performance	2.1 Identify feed safety requirements for target species and phase of animal production 2.2 Identify type and proportion of raw materials in stockfeed and their effect on animal performance with advice from professionals 2.3 Determine the purpose of additives on animal performance and stockfeed quality 2.4 Determine effects of processing on stockfeed nutrition quality and animal performance with advice from professionals 2.5 Recognise substitution guidelines, including the effect of substitution on stockfeed performance

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"> <li>Access and interpret workplace information, including standard operating procedures (SOP), labels, recipes, customer supplied information, and material data safety sheets (MSDS)</li> </ul>
Writing	<ul style="list-style-type: none"> <li>Record customer requirements and specifications for stockfeed on paper-based and electronic media</li> <li>Use and apply workplace terminology</li> </ul>
Numeracy	<ul style="list-style-type: none"> <li>Calculate amounts of stockfeed required according to customer requirements</li> <li>Sequence information against production processes</li> </ul>
Navigate the world of work	<ul style="list-style-type: none"> <li>Interpret and follow regulatory requirements and seek clarification or other assistance when required</li> <li>Identify and describe own skills, knowledge and experience within context of job role</li> </ul>

Skill	Description
	<ul style="list-style-type: none"> <li>Seek advice and feedback on current work performance</li> </ul>
Interact with others	<ul style="list-style-type: none"> <li>Liaise with professional and technical staff on animal nutrition requirements of stockfeed</li> <li>Use oral communication skills and language competence to fulfil the job role as specified by the organisation, including questioning, active listening, asking for clarification and seeking advice from supervisor</li> <li>Ask questions to clarify understanding or seek further information regarding customer requirements</li> <li>Recognise personal strengths and challenges associated with interacting with others in the workplace</li> </ul>
Get the work done	<ul style="list-style-type: none"> <li>Identify resources in the workplace for further information, including nutritionists, other technical and professional specialist and reference materials</li> <li>Maintain hygiene standards and wear required personal protective equipment</li> <li>Identify routine problems and implement standard solutions as required</li> </ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPGRA3002 Apply knowledge of animal nutrition principles to stockfeed product	FDFGR3002A Demonstrate knowledge of animal nutrition principles	Updated to meet Standards for Training Packages	Equivalent unit

## Links

Companion Volumes, including Implementation Guides, are available at VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## Assessment Requirements for FBPGRA3002 Apply knowledge of animal nutrition principles to stockfeed product

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package version 1.0.

### Performance Evidence

An individual demonstrating competency must satisfy all of the elements and performance criteria in this unit.

There must be evidence, on at least one occasion, that the individual has:

- identified target species, animal type and phase of animal growth supported by stockfeed product
- identified and interpreted customer requirements from stockfeed
- related stockfeed type to animal nutrition and production requirements
- liaised with nutritionist and other professional and technical staff on animal nutrition requirements of stockfeed.

### Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- typical nutrition requirements of animals supported by stockfeed, including horses, beef cattle, dairy cattle, pigs, sheep, poultry (both meat and egg production) and marine animals (aquaculture). Knowledge would be restricted to standard daily requirements of main food groups (proteins, carbohydrates etc.), typical daily volume of feed required and type of feed (solid, liquid, plant or animal based)
- how nutritional needs of target animal may vary according to species, gender, health, pregnancy, lactation, age, season, geography, production purpose and form of production and feeding (feedlot, free range, use of stock feed for supplementary or full feeding)
- factors affecting animal acceptance of stockfeed, including palatability and presentation
- range of raw materials typically used in stockfeed, including grains, molasses/liquids, proteins (vegetables and animal), additives (vitamins, minerals and medications) and fibre
- impact of operator-controlled factors on stockfeed quality, including temperatures, moisture, sizing, sieving and liquid additions

- impacts of stockfeed on animal performance, including positive effects on animal performance and effects of incorrect feed on animal safety, animal performance and export contamination.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - a workplace or an environment that accurately represents workplace conditions
- resources, equipment and materials:
  - personal protective equipment relevant to providing advice regarding stockfeed products and processes in the workplace
  - sample customer enquiries and orders
  - stockfeed raw materials
- specifications:
  - reference and resource materials about stockfeed products and processes
  - animal nutrition requirement information
  - stockfeed data, formulas/recipes
- relationship (internal and/or external):
  - access to customers, nutritionists or other livestock professionals.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volumes, including Implementation Guides, are available at VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## FBPGRA3003 Lead flour milling shift operations

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package version 1.0.

### Application

This unit of competency describes the skills and knowledge required to lead milling operations during a shift, including acting as a technical resource to other mill employees.

This unit applies to a miller who is responsible for the flour mill operations during a shift and relates to the milling of all grains for flour and other milling processed food and non-food products.

All work must be carried out to comply with workplace procedures, in accordance with State/Territory work health and safety, and food safety regulations, legislation and standards that apply to the workplace.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

### Pre-requisite Unit

Nil

### Unit Sector

Grain processing (GRA)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Establish shift operating environment	1.1 Identify products and quantities to be produced by mill during shift 1.2 Identify from authorised suppliers, the supplier of grain used during shift and the varieties supplied

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	1.3 Apply required costing and control procedures to achieve set key performance indicators (KPIs) 1.4 Establish range of available equipment and any unique design or operating factors 1.5 Identify staffing and work organisation for shift 1.6 Identify any budget and/or budget operating procedures relevant for shift operations
2. Monitor quality during shift	2.1 Identify specifications for flour to be produced during shift 2.2 Identify performance indicators and production targets for mill and mill departments during shift 2.3 Supervise testing regime for mill during shift 2.4 Monitor performance against targets and indicators 2.5 Report non-conformances and take appropriate corrective actions
3. Set and supervise grain supply and intake procedures	3.1 Supervise grain receipt operations, including compliance with instructions for rejected deliveries 3.2 Set screening criteria and procedures for re-use of screenings 3.3 Set blending criteria for holding bins/silos
4. Set and supervise grain conditioning process and specifications	4.1 Specify and communicate grain cleaning requirements to operators 4.2 Set water volume for each grain batch 4.3 Set conditioning time per batch 4.4 Determine any blending and treatment criteria 4.5 Monitor tests and specifications for conditioned grain 4.6 Supervise transfer to storage or mill
5. Supervise production	5.1 Identify shift production targets 5.2 Obtain or determine recipes 5.3 Formulate and supervise preparation of grist 5.4 Supervise milling of individual grains 5.5 Set blending requirements, including any use of additions and adjuncts 5.6 Allocate production specifications for shift to departments 5.7 Ensure production records are kept

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	5.8 Monitor production against targets
6. Integrate maintenance schedule with shift operations	6.1 Identify shift preventative maintenance requirements from maintenance department and/or equipment suppliers 6.2 Supervise equipment monitoring and maintenance responsibilities for operators, maintenance department and other staff 6.3 Identify and approve timing for any regular maintenance activities that will disrupt production 6.4 Supervise breakdown notification and repair procedures
7. Implement risk management procedures	7.1 Supervise implementation of workplace health and safety and dust control procedures 7.2 Monitor Hazard Analysis and Critical Control Points (HACCP) procedures during shift 7.3 Monitor compliance with environmental and sustainability regulations and targets 7.4 Monitor operations against any required regulatory compliance, including required reporting procedures
8. Provide guidance to other mill employees	8.1 Monitor and maintain standard operating procedures (SOPs) 8.2 Supervise any required training for employees during shift operations 8.3 Ensure availability of reference materials 8.4 Implement communication and feedback mechanisms to and from employees

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"> <li>Interpret food safety, food labelling and other regulations affecting flour mills</li> </ul>
Writing	<ul style="list-style-type: none"> <li>Record flour milling operations on paper-based and electronic</li> </ul>



Skill	Description
	media
Numeracy	<ul style="list-style-type: none"> <li>Calculate water required to achieve target moisture content, extraction rates, protein loss for each grist, and milling gains/losses</li> </ul>
Navigate the world of work	<ul style="list-style-type: none"> <li>Interpret and follow regulatory requirements and seek clarification or other assistance when required</li> <li>Identify and describe own skills, knowledge and experience within context of job role</li> <li>Seek advice and feedback on current work performance</li> </ul>
Interact with others	<ul style="list-style-type: none"> <li>Liaise with other departments on flour product requirements</li> <li>Identify training needs of staff, where required</li> <li>Communicate production requirements and technical information to other employees</li> <li>Use effective communication skills to allocate tasks and provide feedback to team members</li> <li>Use appropriate vocabulary, including technical language directly relevant to role</li> <li>Recognise personal strengths and challenges associated with interacting with others in the workplace</li> </ul>
Get the work done	<ul style="list-style-type: none"> <li>Maintain a clean and hazard-free work area</li> <li>Maintain hygiene standards and wear required personal protective equipment</li> <li>Maintain quality specifications across all flour milling operations in the workplace</li> <li>Identify routine problems and implement standard solutions as required</li> </ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPGRA3003 Lead flour milling shift operations	FDFGR3003A Lead flour milling shift operations	Updated to meet Standards for Training Packages	Equivalent unit

## Links

Companion Volumes, including Implementation Guides, are available at VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# Assessment Requirements for FBPGRA3003 Lead flour milling shift operations

## Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package version 1.0.

## Performance Evidence

An individual demonstrating competency must satisfy all of the elements and performance criteria in this unit.

There must be evidence that, on at least one occasion, the individual has:

- interpreted production requirements and grain tests for desirable mill settings
- established shift operating environment, including required equipment, staffing and work organisation, and costing requirements
- monitored quality of shift operations, including identifying specifications for product to be produced, identifying performance indicators, supervising testing of product, monitoring performance and reporting non-conformances
- assisted employees with conduct and interpretation of grain and flour tests
- matched grain receipt, screening and storage processes to production requirements during shift
- prepared or supervised production of grist according to recipes
- set and managed milling and blending operations
- supervised dust control, HACCP and work health and safety procedures during shift operations
- identified equipment maintenance procedures.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- differences in types of milling processes, including differences in milling of different grains, varieties and milling for flour or for semolina
- process and purpose of flour milling, including:
  - opening of grain to enable removal of endosperm
  - separation of bran

- grinding of endosperm to flour, including sifting of ground stock to remove oversize endosperm particles, flour, or any bran and endosperm that has not been ground
- kibbling
- middlings and semolina process
- methods used to establish the most economic grist for a particular flour, including the balancing of flour specification, grain availability and cost of grain available
- financial impacts of mill performance/settings
- principles of preventative maintenance, including failure mode effects analysis (FMEA)
- food safety, food labelling and other regulations affecting flour mills
- grain varieties and specifications
- flour types and specifications
- food labelling regulations relevant to flour products
- HACCP principles and procedures
- dust control procedures
- work health and safety standards and requirements
- environmental regulations
- feedback techniques
- enterprise budget operating procedures.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - a workplace or an environment that accurately represents workplace conditions
- resources, equipment and materials:
  - personal protective equipment relevant to flour milling operations
  - break and reduction roll process and related equipment and services
  - conditioned grain suitable for the break and reduction roll process
  - sampling schedules, and test procedures and equipment
  - cleaning procedures, materials and equipment
- specifications:
  - work procedures, including advice on safe work practices, food safety, quality and environmental requirements
  - equipment manuals, including operating parameters
  - specifications, control points and processing parameters
  - documentation and recording requirements and procedures.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volumes, including Implementation Guides, are available at VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## FBPGRA3004 Control mill processes and performance

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package version 1.0.

### Application

This unit of competency describes the skills and knowledge required to control flour and by-product production in a flour mill.

This unit applies to a shift miller who is required to set equipment in a flour mill to control the processes and performance across the mill to achieve maximum extraction and recipe compliance. The unit applies to all industrial flour mills, including semolina mills and including mills without purifiers.

All work must be carried out to comply with workplace procedures, in accordance with State/Territory work health and safety, and food safety regulations, legislation and standards that apply to the workplace.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

### Pre-requisite Unit

Nil

### Unit Sector

Grain processing (GRA)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Maintain mill flow sheet	1.1 Identify all breaking, reduction and dressing stages in mill 1.2 Show destinations for all stock separations according to operating

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	<p>requirements</p> <p>1.3 Identify all optional and ancillary equipment required to control flour and by-product production</p> <p>1.4 Identify all bins, silos, chutes, conveyors and exhausts that control processes and performance across the mill</p>
2. Prepare for flour and by-product production	<p>2.1 Establish customer requirements for shift or production period</p> <p>2.2 Follow recipe required to meet desired production quality and quantity targets</p> <p>2.3 Check availability of required wheat stock</p> <p>2.4 Determine if any changes to grist stock will be required and plan for changes to settings</p>
3. Determine break system settings	<p>3.1 Adjust break rolls for desired percentage release</p> <p>3.2 Conduct visual inspection and test sieving where required to monitor release percentage</p> <p>3.3 Monitor break roll passages to avoid saturation of later stages</p> <p>3.4 Set bran finishers according to workplace procedures and to ensure optimum performance</p> <p>3.5 Set plansifters for desired grading, including adjusting spaces between plansifters for varying grains and moisture levels</p> <p>3.6 Monitor performance of break system to ensure system is free from semolina</p>
4. Set settings for purifiers where fitted	<p>4.1 Maintain and monitor sieve covers according to workplace procedures and to ensure optimum performance</p> <p>4.2 Monitor feed rate to purifiers according to workplace procedures and to ensure optimum performance</p> <p>4.3 Monitor horizontal and vertical movement of sieve covers</p> <p>4.4 Set and monitor air pressure for each aspiration section</p> <p>4.5 Select destinations for throughs and lifted bran and other particles</p> <p>4.6 Ensure purifier stock is free from flour</p>
5. Set settings for scratch or sizing system	<p>5.1 Set scratch equipment or sizing rolls according to operator instructions</p> <p>5.2 Monitor performance of scratch and sizing rolls</p>

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
6. Set settings for reduction passages	<p>6.1 Set each set of reduction rolls for desired flour and capacity of succeeding reduction passages</p> <p>6.2 Monitor covers on sifters for effective dressing from each reduction roll</p> <p>6.3 Monitor flake disrupters and impact detachers where fitted</p> <p>6.4 Set and monitor reduction settings to achieve required starch damage</p> <p>6.5 Specify collection conveyors and bins for each flour stream</p>
7. Set settings for final production stages	<p>7.1 Specify use of flour divides for blends</p> <p>7.2 Monitor redressing equipment according to workplace procedures</p> <p>7.3 Monitor weighing, infestation destroying, and metal removal equipment according to work health and safety and operating procedures</p> <p>7.4 Send finished flour to packing or storage according to workplace requirements</p>
8. Monitor mill equipment	<p>8.1 Check flutes and rolls for wear and defects</p> <p>8.2 Monitor temperature of reduction rolls and performance of water cooling if used</p> <p>8.3 Check automatic roll adjustment and protection mechanisms are working correctly</p> <p>8.4 Adjust mill settings when required for effect of breakdowns and urgent maintenance</p>
9. Monitor mill performance	<p>9.1 Ensure all grain and flour tests are carried out to required schedule and procedures</p> <p>9.2 Adjust settings where required for variation in grain, grist and atmospheric conditions</p> <p>9.3 Monitor milling and invisible loss per production period</p>



## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"> <li>Interpret mill flow diagrams</li> <li>Interpret food safety, food labelling and other regulations affecting flour mills</li> </ul>
Writing	<ul style="list-style-type: none"> <li>Record flour milling equipment status on paper-based and electronic media</li> </ul>
Numeracy	<ul style="list-style-type: none"> <li>Estimate break roll percentages through visual examination, hand stratification and test sieving</li> </ul>
Navigate the world of work	<ul style="list-style-type: none"> <li>Interpret and follow regulatory requirements and seek clarification or other assistance when required</li> <li>Identify and describe own skills, knowledge and experience within context of job role</li> <li>Seek advice and feedback on current work performance</li> </ul>
Interact with others	<ul style="list-style-type: none"> <li>Communicate production requirements and technical information to other employees</li> <li>Use effective communication skills to allocate tasks and provide feedback to team members</li> <li>Use appropriate vocabulary, including technical language directly relevant to role</li> <li>Recognise personal strengths and challenges associated with interacting with others in the workplace</li> </ul>
Get the work done	<ul style="list-style-type: none"> <li>Perform contingency planning for equipment breakdown, including failure mode effects analysis</li> <li>Adjust break rolls to take into account number of break stages, grist composition, specification of finished product</li> <li>Maintain a clean and hazard-free work area</li> <li>Maintain hygiene standards and wear required personal protective equipment</li> <li>Maintain quality specifications across flour milling operations in the workplace</li> </ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
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Code and title current version	Code and title previous version	Comments	Equivalence status
FBPGRA3004 Control mill processes and performance	FDFGR3004A Control mill processes and performance	Updated to meet Standards for Training Packages	Equivalent unit

## Links

Companion Volumes, including Implementation Guides, are available at VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# Assessment Requirements for FBPGRA3004 Control mill processes and performance

## Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package version 1.0.

## Performance Evidence

An individual demonstrating competency must satisfy all of the elements and performance criteria in this unit.

There must be evidence that, on at least one occasion, the individual has:

- interpreted mill flow diagrams and production requirements
- identified customer requirements
- determined correct settings for equipment
- set and monitored break and reduction system equipment
- achieved flour recipes through correct use of grist and mill settings
- monitored equipment settings and performance
- adjusted mill settings for breakdowns and other contingencies
- set all related processes for:
  - break
  - scratch
  - sizing
  - reduction and other milling
- supervised wheat conditioning
- ensured settings take into account the capability of equipment and the need to avoid imbalances, product build ups and chokes
- ensured all grain and flour tests are carried out to required schedule and procedures
- applied safe work practices and identified work health and safety hazards and controls.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- alternative and historical milling techniques, including:
  - stone grinding

- 'low' or one pass through grinding
- use of small manual or electric milling machines
- semolina process compared with traditional flour milling process
- conventions and techniques in drawing mill flow diagrams
- characteristics of different grist and their milling requirements
- purpose design and steps in the break process, including:
  - overall aim of removing bran from endosperm in large pieces while minimising bran powder and flour
  - roller design
  - flute design
  - roller speed
  - number of passages
  - destinations of product from each break roll
- purpose, design and principles of the purification process, including:
  - sieve design
  - role of sifting, shaking, gravity and aspiration (upward air)
  - screening decks
  - exhaust ports and chambers
  - collection of throughs
  - overtails
  - relationship of purification to later reduction stages
- scratch equipment and process to remove small pieces of bran and germ from endosperm after sizing or purification
- relationship of particle size to reduction roller efficiency
- reduction which grinds flour into required fineness while controlling damage to starch granules and minimising abrasion to any bran and germ particles present
- features and performance characteristics of milling equipment as specified in manufacturer reference material
- relationship between total dressing surface ratio to mill capacity
- calculation of break roll percentages
- techniques to avoid imbalances, product build ups and chokes
- mill balance requirements and techniques, including:
  - ensuring that stock does not return to immediate preceding passage or equipment
  - feed to first break at a constant rate
  - evenness of feed into rolls
  - maintenance of conveyor and air settings to achieve constant feed
- calculation of mill performance, including:
  - invisible loss rate
  - theoretical and actual milling loss rate.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - a workplace or an environment that accurately represents workplace conditions
- resources, equipment and materials:
  - personal protective equipment relevant to flour milling operations
  - break and reduction roll process and related equipment and services
  - conditioned grain suitable for the break and reduction roll process
  - sampling schedules and test procedures and equipment
- specifications:
  - work procedures, including advice on safe work practices, food safety, quality and environmental requirements
  - equipment manuals, including operating parameters
  - specifications, control points and processing parameters
  - documentation and recording requirements and procedures.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volumes, including Implementation Guides, are available at VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## FBPGRA3005 Conduct rice harvest receivals

### Modification History

Release	Comments
Release 1	This version released with the FBP Food, Beverage and Pharmaceuticals Training Package Version 1.0

### Application

This unit of competency describes the skills and knowledge required to coordinate receival, drying and storage procedures during the rice harvesting period.

The unit applies to individuals who work in the rice grain receivals sites who are responsible for receiving paddy rice for storage and preparation of rice seed. They work under minimal supervision and take responsibility for their own work and that of others in their team.

All work must be carried out to comply with workplace procedures, in accordance with State/Territory food safety, and work health and safety, regulations and legislation that apply to the workplace

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

### Pre-requisite Unit

Nil

### Unit Sector

Grain processing (GRA)

### Elements and Performance Criteria

Elements	Performance criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Plan rice harvest receivals	1.1 Plan for equipment preparation in conjunction with harvest schedule 1.2 Assess labour requirements and make recommendations on labour

Elements	Performance criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	requirements 1.3 Identify the requirements for licences and permits, and ensure they are met 1.4 Identify, select and fit personal protection equipment
2. Receive rice	2.1 Plan storage requirements to allow segregation by variety 2.2 Evaluate and recommend haulage resources 2.3 Identify strategies and resource requirements for drying grain 2.4 Instruct grain suppliers on procedures to deliver grain at maximum quality 2.5 Maintain work area according to workplace housekeeping standards
3. Monitor moisture content	3.1 Monitor grain for moisture content against specifications 3.2 Adjust receival operations to control moisture in stored grain according to procedures 3.3 Assess grain to ensure grain is dried to within required moisture level specifications 3.4 Record grain handling information according to workplace procedures
4. Implement harvest receival schedule	4.1 Manage operating hours to suit harvest resources 4.2 Coordinate equipment operation for maximum efficiency during harvest receivals 4.3 Schedule maintenance and servicing requirements to fit with the harvesting receival plan 4.4 Record harvest schedule information according to workplace procedures

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skills	Description
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Reading	<ul style="list-style-type: none"> <li>Reads and interprets plans, specifications, and other documentation from a variety of sources, and consolidates information to determine rice storage and preparation requirements</li> </ul>
Writing	<ul style="list-style-type: none"> <li>Accurately records and completes organisational documentation using clear language, correct spelling, grammar and terminology when reporting and maintaining rice grain storage records</li> </ul>
Numeracy	<ul style="list-style-type: none"> <li>Make calculations appropriate for measuring and estimating rice weights and volumes for storage</li> <li>Performs mathematical calculations for testing and interpreting rice samples and results to determine action</li> </ul>
Oral communication	<ul style="list-style-type: none"> <li>Effectively participates in verbal exchanges using collaborative and inclusive techniques, including active listening and questioning and reading of verbal and non-verbal signals to convey and clarify information</li> </ul>
Navigate the world of work	<ul style="list-style-type: none"> <li>Takes full responsibility for following policies, procedures and industry standards</li> <li>Identifies and acts on issues that contravene relevant policies, procedures and legal requirements</li> </ul>
Interact with others	<ul style="list-style-type: none"> <li>Cooperates with others and contributes to work practices where joint outcomes are expected and deadlines are to be met</li> </ul>
Get the work done	<ul style="list-style-type: none"> <li>Takes responsibility for planning, sequencing and prioritising tasks and own workload for efficiency and effective outcomes</li> <li>Makes routine decisions and implements standard procedures for routine tasks, using formal decision-making processes for more complex and non-routine situations</li> <li>Uses the main features and functions of digital tools to complete work tasks and access information</li> </ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPGRA3005 Conduct rice harvest receivals	ZRGRPRH3A Conduct rice harvest receivals	<p>Updated to meet Standards for Training Packages</p> <p>Minor changes to performance criteria</p>	Equivalent unit



## Links

Companion Volumes, including Implementation Guides, are available at VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# Assessment Requirements for FBPGRA3005 Conduct rice harvest receivals

## Modification History

Release	Comments
Release 1	This version released with the FBP Food, Beverage and Pharmaceuticals Training Package Version 1.0

## Performance Evidence

An individual demonstrating competency in this unit must satisfy all of the elements and performance criteria of this unit.

There must be evidence that the individual has conducted rice harvest receival for at least three rice grain varieties, including:

- accessed workplace information to identify rice receival requirements
- confirmed supply of necessary equipment and related attachments, materials and services
- identified, selected, fitted and used personal protective clothing and equipment
- followed workplace health and safety procedures
- confirmed supply of necessary equipment and services to carry out set-up operations
- monitored the rice harvest receival system and equipment operation to identify out-of-specification results or non-compliance
- took corrective action in response to out-of-specification results or non-compliance
- diagnosed common faults and rectified or reported equipment failure within level of responsibility and according to workplace procedures
- monitored moisture content and taken action to address moisture issues
- maintained work area to meet housekeeping standards
- managed resources required for rice receival
- maintained workplace records.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- purpose and basic operating principles of the rice harvest receival system, equipment and related processes, including:
  - scheduling requirements
  - resource requirements
  - checking/regulating/adjusting work processes

- rice harvest haulage resources, including:
  - company or contractor haulers
  - combination of trucks and trailers
- handling requirements of rice, including:
  - drying and aeration requirements
  - effect of ambient conditions
  - humidity and moisture
- visual identification of short, medium and long grain rice varieties used within the organisation
- methods of measuring rice condition and controlling the handling and storage conditions
- common causes of variation in rice quality/handling/storage practice, and corrective actions required
- workplace health and safety hazards and controls
- procedures and responsibility for reporting performance information
- operation and monitoring of equipment and processes, including:
  - control panels and systems
  - shutdown procedures
  - cleaning procedures
  - cleaning requirements and status
  - cleaning records.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - an industrial rice processing plant or an environment that accurately represents workplace conditions
- resources, equipment and materials:
  - personal protective clothing and equipment
  - harvest/receival schedule
  - rice harvest receival equipment
  - cleaning materials and equipment
- specifications:
  - work procedures, including advice on safe work practices, food safety, quality and environmental requirements
  - information on equipment capacity and operating parameters
  - specifications, control points and processing parameters
  - equipment operating instructions and manuals
  - sampling schedules and test procedures and equipment
  - documentation and recording requirements and procedures
  - communication and recording systems and procedures

- cleaning procedures, records/clearance as required.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volumes, including Implementation Guides, are available at VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# FBPGRA3006 Implement a paddy receival and grain cleaning process

## Modification History

Release	Comments
Release 1	This version released with the FBP Food, Beverage and Pharmaceuticals Training Package Version 1.0

## Application

This unit of competency describes the skills and knowledge required to remove foreign materials and clean and prepare paddy rice for further processing.

The unit applies to individuals who are production workers in the rice processing environment and are responsible for the paddy receival and grain cleaning process. They work under minimal supervision and take responsibility for their own work and that of others in their team.

All work must be carried out to comply with workplace procedures, in accordance with State/Territory food safety, and work health and safety, regulations and legislation that apply to the workplace.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

## Pre-requisite Unit

Nil

## Unit Sector

Grain processing (GRA)

## Elements and Performance Criteria

Elements	Performance criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare for safe work in a paddy receival and	1.1 Select and fit personal safety protection equipment according to

Elements	Performance criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
grain cleaning process	<p>workplace safety procedures</p> <p>1.2 Select and fit hygiene protection equipment according to workplace food safety hygiene procedures</p> <p>1.3 Perform personal hygiene cleaning procedures</p> <p>1.4 Receive and interpret instructions on paddy receival and grain cleaning activity and performance requirements</p>
2. Prepare the paddy receival and grain cleaning equipment for operation	<p>2.1 Ensure raw materials are available to meet operating requirements</p> <p>2.2 Identify and confirm the status of cleaning and maintenance requirements</p> <p>2.3 Fit and adjust machine components and related attachments according to operating requirements</p> <p>2.4 Enter processing/operating parameters to meet safety and production specifications</p> <p>2.5 Check, adjust and conduct routine maintenance on equipment to ensure required performance</p> <p>2.6 Conduct pre-start checks according to workplace instructions</p>
3. Operate and monitor the paddy receival and grain cleaning process	<p>3.1 Start up and operate process according to workplace procedures</p> <p>3.2 Monitor equipment to identify variation in operating conditions, and adjust according to product specifications</p> <p>3.3 Identify variation in equipment operation, and repair or report maintenance requirements according to workplace reporting procedures</p> <p>3.4 Implement required safety procedures</p> <p>3.5 Collect samples and test to ensure rice meets specification</p> <p>3.6 Identify, rectify or report out-of-specification product/process to maintain process within specification</p> <p>3.7 Ensure workplace meets housekeeping standards</p> <p>3.8 Maintain records according to workplace instructions</p>
4. Shut down the paddy receival and grain cleaning process	<p>4.1 Identify appropriate shutdown procedure</p> <p>4.2 Shut down the process safely according to workplace procedures</p> <p>4.3 Identify maintenance requirements, and report according to workplace procedures</p>

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skills	Description
Reading	<ul style="list-style-type: none"><li>Reads and interprets instructions, operating procedures, specifications, and other documentation from a variety of sources, and consolidates information to determine rice production actions and activity</li></ul>
Writing	<ul style="list-style-type: none"><li>Accurately records and completes organisational documentation using clear language, correct spelling, grammar and terminology when reporting and maintaining rice processing records</li></ul>
Numeracy	<ul style="list-style-type: none"><li>Interprets and manipulates numerical information for volumes, weights and measures</li><li>Performs mathematical calculations to check, interpret and confirm results of system tests</li></ul>
Oral communication	<ul style="list-style-type: none"><li>Effectively participates in verbal exchanges using collaborative and inclusive techniques, including active listening and questioning and reading of verbal and non-verbal signals to convey and clarify information</li></ul>
Navigate the world of work	<ul style="list-style-type: none"><li>Takes full responsibility for following policies, procedures and industry standards</li><li>Identifies and acts on issues that contravene relevant policies, procedures and legal requirements</li></ul>
Interact with others	<ul style="list-style-type: none"><li>Cooperates with others and contributes to work practices where joint outcomes are expected and deadlines are to be met</li></ul>
Get the work done	<ul style="list-style-type: none"><li>Takes responsibility for planning, sequencing and prioritising tasks and workload for efficiency and effective outcomes</li><li>Makes routine decisions and implements standard procedures for routine tasks, using formal decision-making processes for more complex and non-routine situations</li><li>Contributes to continuous improvement of current work practices by applying basic principles of analytical and lateral thinking</li><li>Uses the main features and functions of digital tools to complete work tasks and access information</li></ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPGRA3006 Implement a paddy receival and grain cleaning process	ZRGRPPR2A Operate a paddy rice preparation process	Updated to meet Standards for Training Packages  Change to coding to reflect revised AQF level  Changes to the title, elements and performance criteria	No equivalent unit

## Links

Companion Volumes, including Implementation Guides, are available at VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>



# Assessment Requirements for FBPGRA3006 Implement a paddy receival and grain cleaning process

## Modification History

Release	Comments
Release 1	This version released with the FBP Food, Beverage and Pharmaceuticals Training Package Version 1.0

## Performance Evidence

An individual demonstrating competency in this unit must satisfy all of the elements and performance criteria of this unit.

There must be evidence that the individual has implemented a paddy receival and grain cleaning process for at least three rice grain varieties, including:

- accessed and interpreted workplace information for paddy rice preparation requirements
- confirmed supply of necessary materials and services
- conducted pre-start checks, started, operated, monitored and adjusted process equipment to achieve required outcomes
- selected, fitted and used personal protective equipment
- followed workplace health and safety procedures
- monitored control points and conducted inspections to confirm process remains within specification
- diagnosed common faults and rectified or reported equipment failure within level of responsibility and according to workplace procedures
- took corrective action in response to out-of-specification results
- monitored supply and flow of materials to and from the process
- completed records according to workplace procedures
- maintained work area to meet housekeeping standards.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- purpose and basic principles of the paddy rice preparation process, including:
  - visual identification of short, medium and long grain rice varieties used within the organisation
  - related preparation requirements
  - process flow and the effect of paddy rice preparation process on the end product

- basic operating principles of equipment, including:
  - operational understanding of main equipment components
  - status and purpose of guards
  - equipment operating capacities and applications
  - purpose and location of sensors and related feedback instrumentation
  - services required and action to take if services are not available
  - inspection of equipment condition to identify any signs of wear
  - appropriate settings and/or related parameters
  - cancelling isolation or lock-outs
  - confirming that equipment is clean and correctly configured for processing requirements
  - confirming that sensors and controls are correctly positioned
  - confirming that scheduled maintenance has been carried out
  - confirming all safety guards are in place and operational
  - product/process changeover procedures and responsibilities
- quality characteristics, including:
  - common impurities found in paddy rice
  - acceptable levels of foreign materials content in cleaned paddy rice
  - common causes of product variation, and corrective action
  - requirements of materials and effect of variation in raw materials on the paddy rice preparation process
  - sampling and testing associated with process monitoring and control
- equipment operating requirements, parameters and corrective action required where operation is outside specified parameters, including:
  - typical equipment faults and related causes
  - recognition of signs and symptoms of faulty equipment
  - early warning signs of potential problems
  - requirements of different shutdowns, including emergency and routine shutdowns, and procedures to follow in the event of a power outage
- methods used to monitor the production process, including
  - inspecting
  - measuring
  - testing
- contamination/food safety risks associated with the process, and related control measures
- cleaning and sanitation procedures
- work health and safety hazards and controls, including awareness of the limitations of protective clothing and equipment relevant to the work process
- isolation, lock-out and tag-out procedures and responsibilities
- procedures and responsibility for reporting production and performance information
- environmental issues and controls relevant to the process, including waste/rework collection and handling procedures related to the process.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - an industrial rice processing plant or an environment that accurately represents workplace conditions
- resources, equipment and materials:
  - personal protective clothing and equipment
  - paddy rice cleaning and related equipment and services used on a commercial scale
  - paddy rice to be cleaned
  - cleaning materials and equipment
- specifications:
  - work procedures, including advice on safe work practices, food safety, quality and environmental requirements
  - information on equipment capacity and operating parameters
  - equipment operating instructions and manuals
  - production schedule
  - specifications, control points and processing parameters
  - sampling schedules and test procedures and equipment as required
  - documentation and recording requirements and procedures
  - cleaning procedures, materials and equipment as required.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volumes, including Implementation Guides, are available at VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## FBPGRA3007 Implement a rice blending and cleaning process

### Modification History

Release	Comments
Release 1	This version released with the FBP Food, Beverage and Pharmaceuticals Training Package Version 1.0

### Application

This unit of competency describes the skills and knowledge required to blend and clean different rice varieties to meet customer specifications in a rice milling process.

The unit applies to individuals who are production workers in the rice processing environment and are responsible for the blending and cleaning process. They work under minimal supervision and take responsibility for their own work and that of others in their team.

All work must be carried out to comply with workplace procedures, in accordance with State/Territory food safety, and work health and safety, regulations and legislation that apply to the workplace

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

### Pre-requisite Unit

Nil

### Unit Sector

Grain processing (GRA)

### Elements and Performance Criteria

Elements	Performance criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare for safe work in a rice blending and cleaning process	1.1 Select and fit personal safety protection equipment according to workplace safety procedures 1.2 Select and fit hygiene protection equipment according to

Elements	Performance criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	workplace food safety hygiene procedures 1.3 Perform personal hygiene cleaning procedures 1.4 Receive and interpret instructions on rice blending and cleaning activity and performance requirements
2. Prepare the rice blending and cleaning equipment for operation	2.1 Ensure raw materials are available to meet operating requirements 2.2 Identify and confirm the status of cleaning and maintenance requirements 2.3 Fit and adjust machine components and related attachments according to operating requirements 2.4 Enter processing/operating parameters to meet safety and production specifications 2.5 Check, adjust and conduct routine maintenance on equipment to ensure required performance 2.6 Conduct pre-start checks according to workplace instructions
3. Operate and monitor the rice blending and cleaning process	3.1 Start up and operate process according to workplace procedures 3.2 Monitor equipment to identify variation in operating conditions, and adjust according to product specifications 3.3 Identify variation in equipment operation, and repair or report maintenance requirements according to workplace reporting procedures 3.4 Implement required safety procedures 3.5 Collect samples and test to ensure rice meets specification 3.6 Identify, rectify or report out-of-specification product/process to maintain process within specification 3.7 Ensure workplace meets housekeeping standards 3.8 Maintain records according to workplace instructions
4. Shut down the rice blending and cleaning process	4.1 Identify appropriate shutdown procedure 4.2 Shut down the process safely according to workplace procedures 4.3 Identify maintenance requirements, and report according to workplace procedures

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skills	Description
Reading	<ul style="list-style-type: none"> <li>Reads and interprets instructions, operating procedures, specifications, and other documentation from a variety of sources, and consolidates information to determine rice production actions and activity</li> </ul>
Writing	<ul style="list-style-type: none"> <li>Accurately records and completes organisational documentation using clear language, correct spelling, grammar and terminology when reporting and maintaining rice processing records</li> </ul>
Numeracy	<ul style="list-style-type: none"> <li>Interprets and manipulates numerical information for volumes, weights and measures</li> <li>Performs mathematical calculations to check, interpret and confirm results of system tests</li> </ul>
Oral communication	<ul style="list-style-type: none"> <li>Effectively participates in verbal exchanges using collaborative and inclusive techniques, including active listening and questioning and reading of verbal and non-verbal signals to convey and clarify information</li> </ul>
Navigate the world of work	<ul style="list-style-type: none"> <li>Takes full responsibility for following policies, procedures and industry standards</li> <li>Identifies and acts on issues that contravene relevant policies, procedures and legal requirements</li> </ul>
Interact with others	<ul style="list-style-type: none"> <li>Cooperates with others and contributes to work practices where joint outcomes are expected and deadlines are to be met</li> </ul>
Get the work done	<ul style="list-style-type: none"> <li>Takes responsibility for planning, sequencing and prioritising tasks and workload for efficiency and effective outcomes</li> <li>Makes routine decisions and implements standard procedures for routine tasks, using formal decision-making processes for more complex and non-routine situations</li> <li>Contributes to continuous improvement of current work practices by applying basic principles of analytical and lateral thinking</li> <li>Uses the main features and functions of digital tools to complete work tasks and access information</li> </ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
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FBPGRA3007 Implement a rice blending and cleaning process	ZRGRPBC2A Operate a rice blending and cleaning process	Updated to meet Standards for Training Packages  Change of coding to reflect revised AQF level  Changes to the title, elements and performance criteria	No equivalent unit
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## Links

Companion Volumes, including Implementation Guides, are available at VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# Assessment Requirements for FBPGRA3007 Implement a rice blending and cleaning process

## Modification History

Release	Comments
Release 1	This version released with the FBP Food, Beverage and Pharmaceuticals Training Package Version 1.0

## Performance Evidence

An individual demonstrating competency in this unit must satisfy all of the elements and performance criteria of this unit.

There must be evidence that the individual has implemented a rice blending and cleaning process for at least three rice grain varieties, including:

- accessed and interpreted workplace information to identify blending and cleaning processing requirements
- confirmed supply of necessary materials and services
- conducted pre-start checks, started, operated, monitored and adjusted process equipment to achieve required outcomes
- selected, fitted and used personal protective equipment
- followed workplace health and safety procedures
- monitored control points and conducted inspections to confirm process remains within specification
- took corrective action in response to out-of-specification results
- monitored supply and flow of materials to and from the blending and cleaning process
- diagnosed common faults, and rectified or reported equipment failure within level of responsibility and according to workplace procedures
- completed records according to workplace procedures
- maintained work area to meet housekeeping standards.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- purpose and basic principles of the blending and cleaning process, including:
  - process flow and the effect of blending and cleaning process on the end product
  - varieties and standards of rice
- basic operating principles of equipment, including:



- bins
- bulkers
- tipping/running equipment
- opening slides
- sieves/screens
- conveyor belts and elevators
- weighers
- transfer equipment
- moisture meter
- process control equipment
- cleaning equipment
- an operational understanding of main equipment components, including:
  - status and purpose of guards
  - equipment operating capacities and applications
  - purpose and location of sensors and related feedback instrumentation
  - services required and action to take if services are not available
  - inspection of equipment condition to identify any signs of wear
  - appropriate settings and/or related parameters
  - isolation or lock-out procedures
  - confirming that equipment is clean and correctly configured for processing requirements
  - confirming that sensors and controls are correctly positioned
  - confirming that scheduled maintenance has been carried out
  - confirming that all safety guards are in place and operational
  - product/process changeover procedures and responsibilities
- quality characteristics, including:
  - common causes of product variation and corrective action
  - requirements of materials and effect of variation in raw materials and/or rice variety on the blending and cleaning preparation process
  - sampling and testing associated with process monitoring and control
  - the impact of moisture content in rice on rice processing
- faulty rice product, including
  - incorrect type
  - incorrect moisture content
  - chalky grains
  - foreign materials
  - incorrect colour
  - immature grain
- equipment operating requirements, parameters and corrective action required where operation is outside specified parameters, including:

- typical equipment faults and related causes
- checking magnets
- recognition of signs and symptoms of faulty equipment
- early warning signs of potential problems
- requirements of different shutdowns, including emergency and routine shutdowns, and procedures to follow in the event of a power outage
- methods used to monitor the blending and cleaning process, including:
  - inspecting
  - measuring
  - testing
- contamination/food safety risks associated with the process, and related control measures
- cleaning and sanitation procedures
- work health and safety hazards and controls, including awareness of the limitations of protective clothing and equipment relevant to the work process
- isolation, lock-out and tag-out procedures and responsibilities
- procedures and responsibility for reporting production and performance information
- environmental issues and controls relevant to the process, including waste/rework collection and handling procedures related to the process.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - an industrial rice processing plant or an environment that accurately represents workplace conditions
- resources, equipment and materials:
  - personal protective clothing and equipment
  - commercial-sized rice blending and cleaning equipment and services
  - rice to be blended and cleaned
  - cleaning materials and equipment
- specifications:
  - work procedures, including advice on safe work practices, food safety, quality and environmental requirements
  - information on equipment capacity and operating parameters
  - production schedule
  - specifications, control points and processing parameters
  - equipment operating instructions and manuals
  - sampling schedules and test procedures and equipment as required
  - documentation and recording requirements and procedures
  - cleaning procedures.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volumes, including Implementation Guides, are available at VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## FBPGRA3008 Implement a rice colour sorting process

### Modification History

Release	Comments
Release 1	This version released with the FBP Food, Beverage and Pharmaceuticals Training Package Version 1.0

### Application

This unit of competency describes the skills and knowledge required to operate an optical rice colour sorting process to remove impurities and substandard rice received from the whitening process.

The unit applies to individuals who are production workers in the rice processing environment and are responsible for the colour sorting process. They work under minimal supervision and take responsibility for their own work and that of others in their team.

All work must be carried out to comply with workplace procedures, in accordance with State/Territory food safety, and work health and safety, regulations and legislation that apply to the workplace.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

### Pre-requisite Unit

Nil

### Unit Sector

Grain processing (GRA)

### Elements and Performance Criteria

Elements	Performance criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare for safe work in a rice colour sorting process	1.1 Select and fit personal safety protection equipment according to workplace safety procedures 1.2 Select and fit hygiene protection equipment according to

Elements	Performance criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	workplace food safety hygiene procedures 1.3 Perform personal hygiene cleaning procedures 1.4 Receive and interpret instructions on rice colour sorting activity and performance requirements
2. Prepare the rice colour sorting equipment for operation	2.1 Ensure raw materials are available to meet operating requirements 2.2 Identify and confirm the status of cleaning and maintenance requirements 2.3 Fit and adjust machine components and related attachments according to operating requirements 2.4 Enter processing/operating parameters to meet safety and production specifications 2.5 Check, adjust and conduct routine maintenance on equipment to ensure required performance 2.6 Conduct pre-start checks according to workplace instructions
3. Operate and monitor the rice colour sorting process	3.1 Start and operate process according to workplace procedures 3.2 Monitor equipment to identify variation in operating conditions 3.3 Identify variation in equipment operation, and report maintenance requirements according to workplace reporting procedures 3.4 Collect samples and test to ensure rice meets colour specifications 3.5 Identify, rectify or report out-of-specification product/process to maintain process within specification 3.6 Ensure workplace meets housekeeping standards 3.7 Maintain records according to workplace requirements
4. Shut down the rice colour sorting process	4.1 Identify appropriate shutdown procedure 4.2 Shut down the process safely according to workplace procedures 4.3 Identify maintenance requirements, and report according to workplace procedures

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skills	Description
Reading	<ul style="list-style-type: none"> <li>Reads and interprets instructions, operating procedures, specifications, and other documentation from a variety of sources, and consolidates information to determine rice production actions and activity</li> </ul>
Writing	<ul style="list-style-type: none"> <li>Accurately records and completes organisational documentation using clear language, correct spelling, grammar and terminology when reporting and maintaining rice processing records</li> </ul>
Numeracy	<ul style="list-style-type: none"> <li>Interprets and manipulates numerical information for volumes, weights and measures</li> <li>Performs mathematical calculations to check, interpret and confirm results of system tests</li> </ul>
Oral communication	<ul style="list-style-type: none"> <li>Effectively participates in verbal exchanges using collaborative and inclusive techniques, including active listening and questioning, and reading of verbal and non-verbal signals to convey and clarify information</li> </ul>
Navigate the world of work	<ul style="list-style-type: none"> <li>Takes full responsibility for following policies, procedures and industry standards</li> <li>Identifies and acts on issues that contravene relevant policies, procedures and legal requirements</li> </ul>
Interact with others	<ul style="list-style-type: none"> <li>Cooperates with others and contributes to work practices where joint outcomes are expected and deadlines are to be met</li> </ul>
Get the work done	<ul style="list-style-type: none"> <li>Takes responsibility for planning, sequencing and prioritising tasks and workload for efficiency and effective outcomes</li> <li>Makes routine decisions and implements standard procedures for routine tasks, using formal decision-making processes for more complex and non-routine situations</li> <li>Contributes to continuous improvement of current work practices by applying basic principles of analytical and lateral thinking</li> <li>Uses the main features and functions of digital tools to complete work tasks and access information</li> </ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
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Code and title current version	Code and title previous version	Comments	Equivalence status
FBPGRA3008 Implement a rice colour sorting process	ZRGRPCS2A Operate a rice colour sorting process	Updated to meet Standards for Training Packages  Change of coding to reflect revised AQF level  Changes to the title, elements and performance criteria	No equivalent unit

## Links

Companion Volumes, including Implementation Guides, are available at VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## Assessment Requirements for FBPGRA3008 Implement a rice colour sorting process

### Modification History

Release	Comments
Release 1	This version released with the FBP Food, Beverage and Pharmaceuticals Training Package Version 1.0

### Performance Evidence

An individual demonstrating competency in this unit must satisfy all of the elements and performance criteria of this unit.

There must be evidence that the individual has implemented a rice colour sorting process for at least three rice grain varieties, including:

- accessed and interpreted workplace information for colour sorting process requirements
- confirmed supply of necessary materials and services
- conducted pre-start checks, started, operated, monitored and adjusted process equipment to achieve required outcomes
- selected, fitted and used personal protective equipment
- followed workplace health and safety procedures
- monitored control points and conducted inspections to confirm process remains within specification
- taken corrective action in response to out-of-specification results
- monitored supply and flow of materials to and from the colour sorting process
- diagnosed common faults, and rectified or reported equipment failure within level of responsibility and according to workplace procedures
- completed workplace records according to procedures
- maintained work area to meet housekeeping standards.

### Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- purpose and basic principles of the rice colour sorting process, including:
  - methods for determining the number of passes through the colour sorting process
  - process flow and the effect of rice colour sorting on the end product
  - visual identification of short, medium and long grain rice varieties used within the organisation



- basic operating principles of colour sorting equipment, including:
  - primary colour sorter
  - secondary colour sorter
- an operational understanding of main colour sorting equipment components:
  - status and purpose of guards
  - equipment operating capacities and applications
  - purpose and location of sensors and related feedback instrumentation
  - services required and action to take if services are not available
  - inspection of equipment condition to identify any signs of wear and problems
  - appropriate settings and/or related parameters for different impurities, and the importance of settings for glass
  - appropriate adjustments to maintain product specifications
  - isolation or lock-out procedures
  - confirming that equipment is clean and correctly configured for processing requirements
  - confirming that sensors and controls are correctly positioned
  - confirming that scheduled maintenance has been carried out
  - confirming that all safety guards are in place and operational
  - product/process changeover procedures and responsibilities
- quality characteristics, including:
  - common causes of product variation, and corrective action
  - requirements of materials and the effect of variation in raw materials on colour sorting process
  - sampling and testing associated with process monitoring and control
- equipment operating requirements, parameters and corrective action required where operation is outside specified parameters
- recognition and fault-finding for typical equipment faults and related problems, including:
  - recognition of signs and symptoms of faulty equipment
  - early warning signs of potential problems
  - requirements of different shutdowns, including emergency and routine shutdowns, and procedures to follow in the event of a power outage
- methods used to monitor the rice colour sorting process, including:
  - inspecting
  - measuring
  - testing
- contamination/food safety risks associated with the process, and related control measures
- cleaning and sanitation procedures
- work health and safety hazards and controls, including awareness of the limitations of protective clothing and equipment relevant to the work process
- isolation, lock-out and tag-out procedures and responsibilities
- procedures and responsibility for reporting production and performance information

- environmental issues and controls relevant to the process, including waste/rework collection and handling procedures related to the process.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - an industrial rice processing plant or an environment that accurately represents workplace conditions
- resources, equipment and materials:
  - personal protective clothing and equipment
  - commercial rice colour sorters and related equipment and services
  - commercial quantity of rice to be sorted
  - cleaning materials and equipment
- specifications:
  - work procedures, including advice on safe work practices, food safety, quality and environmental requirements
  - information on equipment capacity and operating parameters
  - equipment operating instructions and manuals
  - production schedule
  - specifications, control points and processing parameters
  - sampling schedules and test procedures and equipment
  - documentation and recording requirements and procedures
  - cleaning procedures.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volumes, including Implementation Guides, are available at VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## FBPGRA3009 Implement a rice flour break process

### Modification History

Release	Comments
Release 1	This version released with the FBP Food, Beverage and Pharmaceuticals Training Package Version 1.0

### Application

This unit of competency describes the skills and knowledge required to separate the bran and other components from the endosperm to produce flour using rice break and fine break equipment.

The unit applies to individuals who are production workers in the rice processing environment and are responsible for the rice flour break process. They work under minimal supervision and take responsibility for their own work and that of others in their team.

All work must be carried out to comply with workplace procedures, in accordance with State/Territory food safety, and work health and safety, regulations and legislation that apply to the workplace.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

### Pre-requisite Unit

Nil

### Unit Sector

Grain processing (GRA)

### Elements and Performance Criteria

Elements	Performance criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare for safe work in a flour break process	1.1 Select and fit personal safety protection equipment according to workplace safety procedures 1.2 Select and fit hygiene protection equipment according to

Elements	Performance criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	workplace food safety hygiene procedures 1.3 Perform personal hygiene cleaning procedures 1.4 Receive and interpret instructions on flour break activity and performance requirements
2. Prepare the flour break equipment for operation	2.1 Ensure raw materials are available to meet operating requirements 2.2 Identify and confirm the status of cleaning and maintenance requirements 2.3 Fit and adjust machine components and related attachments according to operating requirements 2.4 Enter processing/operating parameters to meet safety and production specifications 2.5 Check, adjust and conduct routine maintenance on equipment to ensure required performance 2.6 Conduct pre-start checks according to workplace instructions
3. Operate and monitor the flour break process	3.1 Start up and operate process according to workplace procedures 3.2 Monitor equipment to identify variation in operating conditions, and adjust according to product specifications 3.3 Identify variation in equipment operation, and repair or report maintenance requirements according to workplace reporting procedures 3.4 Implement required safety procedures 3.5 Collect samples and test to ensure rice meets specification 3.6 Identify, rectify or report out-of-specification product/process to maintain process within specification 3.7 Ensure workplace meets housekeeping standards 3.8 Maintain records according to workplace instructions
4. Shut down the flour break process	4.1 Identify appropriate shutdown procedure 4.2 Shut down the process safely according to workplace procedures 4.3 Identify maintenance requirements, and report according to workplace procedures

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skills	Description
Reading	<ul style="list-style-type: none"> <li>Reads and interprets instructions, operating procedures, specifications, and other documentation from a variety of sources, and consolidates information to determine rice production actions and activity</li> </ul>
Writing	<ul style="list-style-type: none"> <li>Accurately records and completes organisational documentation using clear language, correct spelling, grammar and terminology when reporting and maintaining rice processing records</li> </ul>
Numeracy	<ul style="list-style-type: none"> <li>Interprets and manipulates numerical information for volumes, weights and measures</li> <li>Performs mathematical calculations to check, interpret and confirm results of system tests</li> </ul>
Oral communication	<ul style="list-style-type: none"> <li>Effectively participates in verbal exchanges using collaborative and inclusive techniques, including active listening and questioning and reading of verbal and non-verbal signals to convey and clarify information</li> </ul>
Navigate the world of work	<ul style="list-style-type: none"> <li>Takes full responsibility for following policies, procedures and industry standards</li> <li>Identifies and acts on issues that contravene relevant policies, procedures and legal requirements</li> </ul>
Interact with others	<ul style="list-style-type: none"> <li>Cooperates with others and contributes to work practices where joint outcomes are expected and deadlines are to be met</li> </ul>
Get the work done	<ul style="list-style-type: none"> <li>Takes responsibility for planning, sequencing and prioritising tasks and workload for efficiency and effective outcomes</li> <li>Makes routine decisions and implements standard procedures for routine tasks, using formal decision-making processes for more complex and non-routine situations</li> <li>Contributes to continuous improvement of current work practices by applying basic principles of analytical and lateral thinking</li> <li>Uses the main features and functions of digital tools to complete work tasks and access information</li> </ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
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Code and title current version	Code and title previous version	Comments	Equivalence status
FBPGRA3009 Implement a rice flour break process	ZRGRPFB2A Operate a rice flour break process	Updated to meet Standards for Training Packages  Change of coding to reflect revised AQF level  Changes to the title, elements and performance criteria	No equivalent unit

## Links

Companion Volumes, including Implementation Guides, are available at VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# Assessment Requirements for FBPGRA3009 Implement a rice flour break process

## Modification History

Release	Comments
Release 1	This version released with the FBP Food, Beverage and Pharmaceuticals Training Package Version 1.0

## Performance Evidence

An individual demonstrating competency in this unit must satisfy all of the elements and performance criteria of this unit.

There must be evidence that the individual has implemented a rice flour break process for at least three rice grain varieties, including:

- accessed workplace information to identify rice flour break requirements
- confirmed supply of necessary materials and services
- conducted pre-start checks, started, operated, monitored and selected appropriate flour break settings and/or related parameters to achieve required outcomes, including:
  - flow rates
  - adjusting roller pressure
  - clearing chokes or jams
- selected, fitted and used personal protective equipment
- followed workplace health and safety procedures
- monitored control points and conducted inspections to confirm process remains within specification
- taken corrective action in response to out-of-specification results
- monitored supply and flow of materials to and from the colour sorting process
- diagnosed common faults, and rectified or reported equipment failure within level of responsibility and according to workplace procedures
- completed workplace records according to procedures
- maintained work area to meet housekeeping standards.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- purpose and basic principles of the rice flour break process, including:
  - the purpose of break rolls

- process flow and the effect of rice flour break process on the end product
- visual identification of short, medium and long grain rice varieties used within the organisation
- materials used in the break process, including:
  - large brokens
  - small brokens
  - different rice varieties
- by-products produced, including:
  - bran
  - pollard
  - screenings
- basic operating principles of equipment, including:
  - rice break equipment
  - break rolls (roller mills)
  - transfer equipment
  - ripple mill
  - pin mill
  - impact detacher
- an operational understanding of main equipment components, including:
  - status and purpose of guards
  - equipment operating capacities and applications
  - purpose and location of sensors and related feedback instrumentation
  - services required and action to take if services are not available
  - inspection of equipment condition to identify any signs of wear
  - appropriate settings and/or related parameters
  - isolation or lock-out procedures
  - confirming that equipment is clean and correctly configured for processing requirements
  - confirming that sensors and controls are correctly positioned
  - confirming that scheduled maintenance has been carried out
  - confirming that all safety guards are in place and operational
  - product/process changeover procedures and responsibilities
- quality characteristics, including:
  - common causes of product variation, and corrective action
- faulty rice product, including:
  - pollard
  - damaged rice
  - brokens
  - incorrect type
  - incorrect moisture content



- chalky grains
- foreign materials
- incorrect colour
- sampling and testing associated with process monitoring and control
- equipment operating requirements, parameters and corrective action required where operation is outside specified parameters, including:
  - typical equipment faults and related causes
  - recognition of signs and symptoms of faulty equipment
  - early warning signs of potential problems
  - requirements of different shutdowns, including emergency and routine shutdowns, and procedures to follow in the event of a power outage
- methods used to monitor the rice flour break process, including:
  - inspecting
  - measuring
  - testing
- contamination/food safety risks associated with the process, and related control measures
- cleaning and sanitation procedures
- work health and safety hazards and controls, including awareness of the limitations of protective clothing and equipment relevant to the work process
- isolation, lock-out and tag-out procedures and responsibilities
- procedures and responsibility for reporting production and performance information
- environmental issues and controls relevant to the process, including waste/rework collection and handling procedures related to the process.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - an industrial rice processing plant or an environment that accurately represents workplace conditions
- resources, equipment and materials:
  - personal protective clothing and equipment
  - commercial rice flour break equipment and services
  - commercial qualities of rice raw materials
  - cleaning materials and equipment
- specifications:
  - work procedures, including advice on safe work practices, food safety, quality and environmental requirements
  - information on equipment capacity and operating parameters
  - production schedule
  - specifications, control points and processing parameters

- equipment operating instructions and manuals
- sampling schedules and test procedures and equipment
- documentation and recording requirements and procedures
- cleaning procedures.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volumes, including Implementation Guides, are available at VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## FBPGRA3010 Implement a rice flour grading process

### Modification History

Release	Comments
Release 1	This version released with the FBP Food, Beverage and Pharmaceuticals Training Package Version 1.0

### Application

This unit of competency describes the skills and knowledge required to operate and maintain the sieving machinery for a rice flour grading process.

The unit applies to individuals who are production workers in the rice processing environment and are responsible for the rice flour grading process. They work under minimal supervision and take responsibility for their own work and that of others in their team.

All work must be carried out to comply with workplace procedures, in accordance with State/Territory food safety, and work health and safety, regulations and legislation that apply to the workplace.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

### Pre-requisite Unit

Nil

### Unit Sector

Grain processing (GRA)

### Elements and Performance Criteria

Elements	Performance criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare for safe work in a rice flour grading process	1.1 Select and fit personal safety protection equipment according to workplace safety procedures 1.2 Select and fit hygiene protection equipment according to

Elements	Performance criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	workplace food safety hygiene procedures 1.3 Perform personal hygiene cleaning procedures 1.4 Receive and interpret instructions on rice flour grading activity and performance requirements
2. Prepare the rice flour grading equipment for operation	2.1 Ensure raw materials are available to meet operating requirements 2.2 Identify and confirm the status of cleaning and maintenance requirements 2.3 Fit and adjust machine components and related attachments according to operating requirements 2.4 Enter processing/operating parameters to meet safety and production specifications 2.5 Check, adjust and conduct routine maintenance on equipment to ensure required performance 2.6 Conduct pre-start checks according to workplace instructions
3. Operate and monitor the rice flour grading process	3.1 Start up and operate process according to workplace procedures 3.2 Monitor equipment to identify variation in operating conditions, and adjust according to product specifications 3.3 Identify variation in equipment operation, and repair or report maintenance requirements according to workplace reporting procedures 3.4 Implement required safety procedures 3.5 Collect samples and test to ensure rice meets specification 3.6 Identify, rectify or report out-of-specification product/process to maintain process within specification 3.7 Ensure workplace meets housekeeping standards 3.8 Maintain records according to workplace instructions
4. Shut down the rice flour grading process	4.1 Identify appropriate shutdown procedure 4.2 Shut down the process safely according to workplace procedures 4.3 Identify maintenance requirements, and report according to workplace procedures

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skills	Description
Reading	<ul style="list-style-type: none"> <li>Reads and interprets instructions, operating procedures, specifications, and other documentation from a variety of sources, and consolidates information to determine rice production actions and activity</li> </ul>
Writing	<ul style="list-style-type: none"> <li>Accurately records and completes organisational documentation using clear language, correct spelling, grammar and terminology when reporting and maintaining rice processing records</li> </ul>
Numeracy	<ul style="list-style-type: none"> <li>Interprets and manipulates numerical information for volumes, weights and measures</li> <li>Performs mathematical calculations to check, interpret and confirm results of system tests</li> </ul>
Oral communication	<ul style="list-style-type: none"> <li>Effectively participates in verbal exchanges using collaborative and inclusive techniques, including active listening and questioning and reading of verbal and non-verbal signals to convey and clarify information</li> </ul>
Navigate the world of work	<ul style="list-style-type: none"> <li>Takes full responsibility for following policies, procedures and industry standards</li> <li>Identifies and acts on issues that contravene relevant policies, procedures and legal requirements</li> </ul>
Interact with others	<ul style="list-style-type: none"> <li>Cooperates with others and contributes to work practices where joint outcomes are expected and deadlines are to be met</li> </ul>
Get the work done	<ul style="list-style-type: none"> <li>Takes responsibility for planning, sequencing and prioritising tasks and workload for efficiency and effective outcomes</li> <li>Makes routine decisions and implements standard procedures for routine tasks, using formal decision-making processes for more complex and non-routine situations</li> <li>Contributes to continuous improvement of current work practices by applying basic principles of analytical and lateral thinking</li> <li>Uses the main features and functions of digital tools to complete work tasks and access information</li> </ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
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Code and title current version	Code and title previous version	Comments	Equivalence status
FBPGRA3010 Implement a rice flour grading process	ZRGRPFG2A Operate a rice flour grading process	Updated to meet Standards for Training Packages  Change of coding to reflect revised AQF level  Changes to the title, elements and performance criteria	No equivalent unit

## Links

Companion Volumes, including Implementation Guides, are available at VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# Assessment Requirements for FBPGRA3010 Implement a rice flour grading process

## Modification History

Release	Comments
Release 1	This version released with the FBP Food, Beverage and Pharmaceuticals Training Package Version 1.0

## Performance Evidence

An individual demonstrating competency in this unit must satisfy all of the elements and performance criteria of this unit.

There must be evidence that the individual has implemented a rice flour grading process for at least three rice grain varieties, including:

- accessed and interpreted workplace information to identify rice flour grading processing requirements
- confirmed supply of necessary materials and services
- conducted pre-start checks, started, operated, monitored and adjusted process equipment to achieve required outcomes
- selected, fitted and used personal protective equipment
- followed workplace health and safety procedures
- monitored control points and conducted inspections to confirm process remains within specification
- taken corrective action in response to out-of-specification results
- monitored supply and flow of materials to and from the rice flour grading process
- diagnosed common faults, and rectified or reported equipment failure within level of responsibility and according to workplace procedures
- completed records according to workplace procedures
- maintained work area to meet housekeeping standards.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- purpose and basic principles of the rice flour grading process, including:
  - visual identification of short, medium and long grain varieties of rice grain and rice flour used within the organisation
  - process flow and the effect of rice flour grading on the end product

- flow of this process and the effect of rice flour grading process on the end product
- separation of the break stock (chop) into appropriate flows to the next break, purifiers and sizing rolls
- source of raw materials (from break process)
- basic operating principles of equipment, including:
  - plansifters and accessories
  - transfer equipment
  - compressors
  - aspirators
  - filtrators
- an operational understanding of main equipment components, including:
  - status and purpose of guards
  - equipment operating capacities and applications
  - purpose and location of sensors and related feedback instrumentation
  - services required and action to take if services are not available
  - inspection of equipment condition to identify any signs of wear
  - appropriate settings and/or related parameters
  - isolation or lock-out procedures
  - confirming that equipment is clean and correctly configured for processing requirements
  - confirming that sensors and controls are correctly positioned
  - confirming that scheduled maintenance has been carried out
  - confirming that all safety guards are in place and operational
  - product/process changeover procedures and responsibilities
- quality characteristics, including:
  - common causes of product variation, and corrective action
  - requirements of materials and effect of variation in raw materials and rice variety on the rice flour grading process
  - sampling and testing associated with process monitoring and control
- equipment operating requirements, parameters and corrective action required where operation is outside specified parameters, including:
  - typical equipment faults and related causes
  - recognition of signs and symptoms of faulty equipment
  - early warning signs of potential problems
  - requirements of different shutdowns, including emergency and routine shutdowns, and procedures to follow in the event of a power outage
- methods used to monitor the rice flour grading process, including:
  - inspecting
  - measuring
  - testing
- contamination/food safety risks associated with the process, and related control measures



- cleaning and sanitation procedures
- work health and safety hazards and controls, including awareness of the limitations of protective clothing and equipment relevant to the work process
- isolation, lock-out and tag-out procedures and responsibilities
- procedures and responsibility for reporting production and performance information
- environmental issues and controls relevant to the process, including waste/rework collection and handling procedures related to the process.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - an industrial rice processing plant or an environment that accurately represents workplace conditions
- resources, equipment and materials:
  - personal protective clothing and equipment
  - commercial milling rice flour grading equipment and services
  - commercial volumes of flour to be graded
  - cleaning materials and equipment
- specifications:
  - work procedures, including advice on safe work practices, food safety, quality and environmental requirements
  - information on equipment capacity and operating parameters
  - equipment operating instructions and manuals
  - production schedule
  - specifications, control points and processing parameters
  - sampling schedules and test procedures and equipment
  - documentation and recording requirements and procedures
  - cleaning procedures.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volumes, including Implementation Guides, are available at VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## FBPGRA3011 Implement a rice grading process

### Modification History

Release	Comments
Release 1	This version released with the FBP Food, Beverage and Pharmaceuticals Training Package Version 1.0

### Application

This unit of competency describes the skills and knowledge required to sort and remove foreign grains and other matter from rice using scalping equipment.

The unit applies to individuals who are production workers in the rice processing environment and are responsible for the rice grading process. They work under minimal supervision and take responsibility for their own work and that of others in their team.

All work must be carried out to comply with workplace procedures, in accordance with State/Territory food safety, and work health and safety, regulations and legislation that apply to the workplace.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

### Pre-requisite Unit

Nil

### Unit Sector

Grain processing (GRA)

### Elements and Performance Criteria

Elements	Performance criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare for safe work in a rice grading process	1.1 Select and fit personal safety protection equipment according to workplace safety procedures 1.2 Select and fit hygiene protection equipment according to

Elements	Performance criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	workplace food safety hygiene procedures 1.3 Perform personal hygiene cleaning procedures 1.4 Receive and interpret instructions on rice grading activity and performance requirements
2. Prepare the rice grading equipment for operation	2.1 Ensure raw materials are available to meet operating requirements 2.2 Identify and confirm the status of cleaning and maintenance requirements 2.3 Fit and adjust machine components and related attachments according to operating requirements 2.4 Enter processing/operating parameters to meet safety and production specifications 2.5 Check, adjust and conduct routine maintenance on equipment to ensure required performance 2.6 Conduct pre-start checks according to workplace instructions
3. Operate and monitor the rice grading process	3.1 Start up and operate process according to workplace procedures 3.2 Monitor equipment to identify variation in operating conditions, and adjust according to product specifications 3.3 Identify variation in equipment operation, and repair or report maintenance requirements according to workplace reporting procedures 3.4 Implement required safety procedures 3.5 Collect samples and test to ensure rice meets specification 3.6 Identify, rectify or report out-of-specification product/process to maintain process within specification 3.7 Ensure workplace meets housekeeping standards 3.8 Maintain records according to workplace instructions
4. Shut down the rice grading process	4.1 Identify appropriate shutdown procedure 4.2 Shut down the process safely according to workplace procedures 4.3 Identify maintenance requirements, and report according to workplace procedures

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skills	Description
Reading	<ul style="list-style-type: none"> <li>Reads and interprets instructions, operating procedures, specifications, and other documentation from a variety of sources, and consolidates information to determine rice production actions and activity</li> </ul>
Writing	<ul style="list-style-type: none"> <li>Accurately records and completes organisational documentation using clear language, correct spelling, grammar and terminology when reporting and maintaining rice processing records</li> </ul>
Numeracy	<ul style="list-style-type: none"> <li>Interprets and manipulates numerical information for volumes, weights and measures</li> <li>Performs mathematical calculations to check, interpret and confirm results of system tests</li> </ul>
Oral communication	<ul style="list-style-type: none"> <li>Effectively participates in verbal exchanges using collaborative and inclusive techniques, including active listening and questioning and reading of verbal and non-verbal signals to convey and clarify information</li> </ul>
Navigate the world of work	<ul style="list-style-type: none"> <li>Takes full responsibility for following policies, procedures and industry standards</li> <li>Identifies and acts on issues that contravene relevant policies, procedures and legal requirements</li> </ul>
Interact with others	<ul style="list-style-type: none"> <li>Cooperates with others and contributes to work practices where joint outcomes are expected and deadlines are to be met</li> </ul>
Get the work done	<ul style="list-style-type: none"> <li>Takes responsibility for planning, sequencing and prioritising tasks and workload for efficiency and effective outcomes</li> <li>Makes routine decisions and implements standard procedures for routine tasks, using formal decision-making processes for more complex and non-routine situations</li> <li>Contributes to continuous improvement of current work practices by applying basic principles of analytical and lateral thinking</li> <li>Uses the main features and functions of digital tools to complete work tasks and access information</li> </ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
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Code and title current version	Code and title previous version	Comments	Equivalence status
FBPGRA3011 Implement a rice grading process	ZRGRPRG2A Operate a rice grading process	Updated to meet Standards for Training Packages  Change of coding to reflect revised AQF level  Changes to the title, elements and performance criteria	No equivalent unit

## Links

Companion Volumes, including Implementation Guides, are available at VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# Assessment Requirements for FBPGRA3011 Implement a rice grading process

## Modification History

Release	Comments
Release 1	This version released with the FBP Food, Beverage and Pharmaceuticals Training Package Version 1.0

## Performance Evidence

An individual demonstrating competency in this unit must satisfy all of the elements and performance criteria of this unit.

There must be evidence that the individual has implemented a rice grading process for at least three rice grain varieties, including:

- accessed and interpreted workplace information for rice grading processing requirements
- confirmed supply of necessary materials and services
- conducted pre-start checks, started, operated, monitored and adjusted process equipment to achieve required outcomes
- selected, fitted and used personal protective equipment
- followed workplace health and safety procedures
- monitored control points and conducted inspections to confirm process remains within specification
- taken corrective action in response to out-of-specification results
- monitored supply and flow of materials to and from the rice grading process
- diagnosed common faults and rectified or reported equipment failure within level of responsibility and according to workplace procedures
- completed records according to workplace procedures
- maintained work area to meet housekeeping standards.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- purpose and basic principles of the rice grading process, including:
  - visual identification of short, medium and long grain rice varieties used within the organisation, including recognition of double or single stress cracked rice
  - process flow and the effect of rice grading process on the end product
  - effect of grain heat on grading process

- basic operating principles of equipment, including:
  - balance bins
  - plansifters and accessories
  - length graders
  - width graders
  - destoners
  - transfer equipment
  - weighers
  - indent cylinders and adjustments
  - correct amount of weight on whiteners
- an operational understanding of main equipment components, including:
  - status and purpose of guards
  - equipment operating capacities and applications
  - purpose and location of sensors and related feedback instrumentation
  - services required and action to take if services are not available
  - inspection of equipment condition to identify any signs of wear
  - appropriate settings and/or related parameters
  - isolation or lock-out procedures
  - confirming that equipment is clean and correctly configured for processing requirements
  - confirming that sensors and controls are correctly positioned
  - confirming that scheduled maintenance has been carried out
  - confirming that all safety guards are in place and operational
  - product/process changeover procedures and responsibilities
- quality characteristics, including:
  - common causes of product variation and corrective action
  - requirements of materials and effect of variation in raw materials on the rice grading process
  - sampling and testing associated with process monitoring and control
- equipment operating requirements, parameters and corrective action required where operation is outside specified parameters, including:
  - typical equipment faults and related causes
  - recognition of signs and symptoms of faulty equipment
  - early warning signs of potential problems
  - requirements of different shutdowns, including emergency and routine shutdowns, and procedures to follow in the event of a power outage
- methods used to monitor the rice grading process, including:
  - inspecting
  - measuring
  - testing

- contamination/food safety risks associated with the process, and related control measures
- cleaning and sanitation procedures
- work health and safety hazards and controls, including awareness of the limitations of protective clothing and equipment relevant to the work process
- isolation, lock-out and tag-out procedures and responsibilities
- procedures and responsibility for reporting production and performance information
- environmental issues and controls relevant to the process, including waste/rework collection and handling procedures related to the process.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - an industrial rice processing plant or an environment that accurately represents workplace conditions
- resources, equipment and materials:
  - personal protective clothing and equipment
  - commercial milling rice grading equipment and services
  - commercial volumes of rice to be graded
  - cleaning materials and equipment
- specifications:
  - work procedures, including advice on safe work practices, food safety, quality and environmental requirements
  - information on equipment capacity and operating parameters
  - equipment operating instructions and manuals
  - production schedule
  - specifications, control points and processing parameters
  - sampling schedules and test procedures and equipment
  - documentation and recording requirements and procedures
  - cleaning procedures.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volumes, including Implementation Guides, are available at VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>



## FBPGRA3012 Implement a rice hulling and separation process

### Modification History

Release	Comments
Release 1	This version released with the FBP Food, Beverage and Pharmaceuticals Training Package Version 1.0

### Application

This unit of competency describes the skills and knowledge required to remove the husks and separate brown rice from paddy rice using hulling and separation equipment.

The unit applies to individuals who are production workers in the rice processing environment and are responsible for the rice hulling and separation process. They work under minimal supervision and take responsibility for their own work and that of others in their team.

All work must be carried out to comply with workplace procedures, in accordance with State/Territory food safety, and work health and safety, regulations and legislation that apply to the workplace.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

### Pre-requisite Unit

Nil

### Unit Sector

Grain processing (GRA)

### Elements and Performance Criteria

Elements	Performance criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare for safe work in a hulling and separation process	1.1 Select and fit personal safety protection equipment according to workplace safety procedures 1.2 Select and fit hygiene protection equipment according to

Elements	Performance criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	workplace food safety hygiene procedures 1.3 Perform personal hygiene cleaning procedures 1.4 Receive and interpret instructions on hulling and separation activity and performance requirements
2. Prepare hulling and separation equipment for operation	2.1 Ensure raw materials are available to meet operating requirements 2.2 Identify and confirm the status of cleaning and maintenance requirements 2.3 Fit and adjust machine components and related attachments according to operating requirements 2.4 Enter processing/operating parameters to meet safety and production specifications 2.5 Check, adjust and conduct routine maintenance on equipment to ensure required performance 2.6 Conduct pre-start checks according to workplace instructions
3. Operate and monitor hulling and separation process	3.1 Start up and operate process according to workplace procedures 3.2 Monitor equipment to identify variation in operating conditions, and adjust according to product specifications 3.3 Identify variation in equipment operation, and repair or report maintenance requirements according to workplace reporting procedures 3.4 Implement required safety procedures 3.5 Collect samples and test to ensure rice meets specification 3.6 Identify, rectify or report out-of-specification product/process to maintain process within specification 3.7 Ensure workplace meets housekeeping standards 3.8 Maintain records according to workplace instructions
4. Shut down hulling and separation process	4.1 Identify appropriate shutdown procedure 4.2 Shut down the process safely according to workplace procedures 4.3 Identify maintenance requirements, and report according to workplace procedures

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skills	Description
Reading	<ul style="list-style-type: none"> <li>Reads and interprets instructions, operating procedures, specifications, and other documentation from a variety of sources, and consolidates information to determine rice production actions and activity</li> </ul>
Writing	<ul style="list-style-type: none"> <li>Accurately records and completes organisational documentation using clear language, correct spelling, grammar and terminology when reporting and maintaining rice processing records</li> </ul>
Numeracy	<ul style="list-style-type: none"> <li>Interprets and manipulates numerical information for volumes, weights and measures</li> <li>Performs mathematical calculations to check, interpret and confirm results of system tests</li> </ul>
Oral communication	<ul style="list-style-type: none"> <li>Effectively participates in verbal exchanges using collaborative and inclusive techniques, including active listening and questioning and reading of verbal and non-verbal signals to convey and clarify information</li> </ul>
Navigate the world of work	<ul style="list-style-type: none"> <li>Takes full responsibility for following policies, procedures and industry standards</li> <li>Identifies and acts on issues that contravene relevant policies, procedures and legal requirements</li> </ul>
Interact with others	<ul style="list-style-type: none"> <li>Cooperates with others and contributes to work practices where joint outcomes are expected and deadlines are to be met</li> </ul>
Get the work done	<ul style="list-style-type: none"> <li>Takes responsibility for planning, sequencing and prioritising tasks and workload for efficiency and effective outcomes</li> <li>Makes routine decisions and implements standard procedures for routine tasks, using formal decision-making processes for more complex and non-routine situations</li> <li>Contributes to continuous improvement of current work practices by applying basic principles of analytical and lateral thinking</li> <li>Uses the main features and functions of digital tools to complete work tasks and access information</li> </ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
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Code and title current version	Code and title previous version	Comments	Equivalence status
FBPGRA3012 Implement a rice hulling and separation process	ZRGRPHS2A Operate a hulling and separation process	Updated to meet Standards for Training Packages  Change of coding to reflect revised AQF level  Changes to title, elements and performance criteria	No equivalent unit

## Links

Companion Volumes, including Implementation Guides, are available at VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# Assessment Requirements for FBPGRA3012 Implement a rice hulling and separation process

## Modification History

Release	Comments
Release 1	This version released with the FBP Food, Beverage and Pharmaceuticals Training Package Version 1.0

## Performance Evidence

An individual demonstrating competency in this unit must satisfy all of the elements and performance criteria of this unit.

There must be evidence that the individual has implemented a hulling and separation process for at least three rice grain varieties, including:

- accessed and interpreted workplace information for hulling and separation requirements
- confirmed supply of necessary materials and services
- conducted pre-start checks, started, operated, monitored and adjusted separation and hulling process equipment to achieve required outcomes, including:
  - monitored control points
  - conducted inspections
  - confirmed process remains within specification
  - conducted equipment changeover/replacements according to procedures
- diagnosed common faults, and rectified or reported equipment failure within level of responsibility and according to workplace procedures
- selected, fitted and used personal protective equipment
- followed workplace health and safety procedures
- followed personal hygiene practices according to food safety procedures
- monitored the quality of process, and taken corrective action in response to out-of-specification results
- completed workplace records according to procedures
- maintained work area to meet housekeeping standards.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- purpose and basic principles of the hulling and separation process and the effect of hulling/shelling and separation process on the end product, including:
  - visual identification of short, medium and long grain rice varieties used within the organisation
  - process flow and the effect of hulling and separation process on the end product
- basic operating principles of equipment, including:
  - huller rollers and replacement/reversal
  - elevators
  - spouts
  - tilt paddy tables
- operational understanding and adjustments of main equipment components, including:
  - status and purpose of guards
  - equipment operating capacities, efficiencies and applications
  - purpose and location of sensors and related feedback instrumentation
  - knowledge of services required and action to take if services are not available
- basic operating principles of process control, including:
  - process control equipment
  - the relationship between control panels and systems
  - product/process changeover procedures and responsibilities
- quality characteristics, including:
  - requirements of materials and effect of variation in raw materials on the hulling and separation process
  - common causes of variation, and corrective action required, including contamination and mixed rice
  - sampling and testing associated with process monitoring and control
  - quality indicators, including moisture
- equipment operating requirements, parameters and corrective action required where operation is outside specified operating parameters, including:
  - identification of typical equipment faults and related causes
  - recognition of signs and symptoms of blocked, faulty or worn equipment
  - early warning signs of potential problems
  - requirements of different shutdowns, including emergency and routine shutdowns, and procedures to follow in the event of a power outage
  - isolation, lock-out and tag-out procedures and responsibilities
  - routine maintenance procedures
- methods used to monitor the hulling and separation process, including:
  - inspecting
  - measuring
  - testing
- contamination/food safety risks associated with the process, and related control measures
- cleaning and sanitation procedures

- work health and safety hazards and controls, including awareness of the limitations of protective clothing and equipment relevant to the work process
- procedures and responsibility for reporting production and performance information
- environmental issues and controls relevant to the process, including:
  - waste/rework collection
  - manual handling procedures related to the process.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - an industrial rice processing plant or an environment that accurately represents workplace conditions
- resources, equipment and materials:
  - personal protective clothing and equipment
  - hulling equipment and services
  - tilt paddy tables for separating grain from paddy
  - product to be hulled and separated
  - cleaning materials and equipment
- specifications:
  - work procedures, including advice on safe work practices, food safety, quality and environmental requirements
  - information on equipment capacity and operating parameters
  - production schedule
  - specifications, control points and processing parameters
  - equipment operating instructions and manuals
  - sampling schedules and test procedures and equipment
  - documentation and recording requirements and procedures
  - cleaning procedures.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volumes, including Implementation Guides, are available at VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# FBPGRA3013 Implement a rice product manufacturing process

## Modification History

Release	Comments
Release 1	This version released with the FBP Food, Beverage and Pharmaceuticals Training Package Version 1.0

## Application

This unit of competency describes the skills and knowledge required to prepare ingredients and produce rice food products using a manufacturing process.

The unit applies to individuals who are production workers in the rice processing environment and are responsible for the rice product manufacturing process. They work under minimal supervision and take responsibility for their own work and that of others in their team.

All work must be carried out to comply with workplace procedures, in accordance with State/Territory food safety, and work health and safety, regulations and legislation that apply to the workplace.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

## Pre-requisite Unit

Nil

## Unit Sector

Grain processing (GRA)

## Elements and Performance Criteria

Elements	Performance criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare for safe work in a rice product manufacturing process	1.1 Select and fit personal safety protection equipment according to workplace safety procedures 1.2 Select and fit hygiene protection equipment according to workplace



Elements	Performance criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	food safety hygiene procedures 1.3 Perform personal hygiene cleaning procedures 1.4 Receive and interpret instructions on rice product manufacturing activity and performance requirements
2. Prepare the rice product manufacturing equipment for operation	2.1 Ensure raw materials available to meet operating requirements 2.2 Identify and confirm the status of cleaning and maintenance requirements 2.3 Fit and adjust machine components and related attachments according to operating requirements 2.4 Enter processing/operating parameters to meet safety and production specifications 2.5 Check, adjust and conduct routine maintenance on equipment to ensure required performance 2.6 Conduct pre-start checks according to workplace instructions
3. Operate and monitor the rice product manufacturing process	3.1 Start up and operate process according to workplace procedures 3.2 Monitor equipment to identify variation in operating conditions, and adjust according to product specifications 3.3 Identify variation in equipment operation, and repair or report maintenance requirements according to workplace reporting procedures 3.4 Implement required safety procedures 3.5 Collect samples and test to ensure rice product meets specification 3.6 Identify, rectify or report out-of-specification product/process to maintain process within specification 3.7 Ensure workplace meets housekeeping standards 3.8 Maintain records according to workplace instructions
4. Shut down the rice product manufacturing process	4.1 Identify appropriate shutdown procedure 4.2 Shut down the process safely according to workplace procedures 4.3 Identify maintenance requirements, and report according to workplace procedures

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skills	Description
Reading	<ul style="list-style-type: none"> <li>Reads and interprets instructions, operating procedures, specifications, and other documentation from a variety of sources and consolidates information to determine rice production actions and activity</li> </ul>
Writing	<ul style="list-style-type: none"> <li>Accurately records and completes organisational documentation using clear language, correct spelling, grammar and terminology when reporting and maintaining rice processing records</li> </ul>
Numeracy	<ul style="list-style-type: none"> <li>Interprets and manipulates numerical information for volumes, weights and measures</li> <li>Performs mathematical calculations to check, interpret and confirm results of system tests</li> </ul>
Oral communication	<ul style="list-style-type: none"> <li>Effectively participates in verbal exchanges using collaborative and inclusive techniques, including active listening and questioning and reading of verbal and non-verbal signals to convey and clarify information</li> </ul>
Navigate the world of work	<ul style="list-style-type: none"> <li>Takes full responsibility for following policies, procedures and industry standards</li> <li>Identifies and acts on issues that contravene relevant policies, procedures and legal requirements</li> </ul>
Interact with others	<ul style="list-style-type: none"> <li>Cooperates with others and contributes to work practices where joint outcomes are expected and deadlines are to be met</li> </ul>
Get the work done	<ul style="list-style-type: none"> <li>Takes responsibility for planning, sequencing and prioritising tasks and workload for efficiency and effective outcomes</li> <li>Makes routine decisions and implements standard procedures for routine tasks, using formal decision-making processes for more complex and non-routine situations</li> <li>Contributes to continuous improvement of current work practices by applying basic principles of analytical and lateral thinking</li> <li>Uses the main features and functions of digital tools to complete work tasks and access information</li> </ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
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Code and title current version	Code and title previous version	Comments	Equivalence status
FBPGRA3013 Implement a rice product manufacturing process	ZRGRPPM2A Operate a rice product manufacturing process	Updated to meet Standards for Training Packages  Change of coding to reflect revised AQF level  Changes to the title, elements and performance criteria	No equivalent unit

## Links

Companion Volumes, including Implementation Guides, are available at VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# Assessment Requirements for FBPGRA3013 Implement a rice product manufacturing process

## Modification History

Release	Comments
Release 1	This version released with the FBP Food, Beverage and Pharmaceuticals Training Package Version 1.0

## Performance Evidence

An individual demonstrating competency in this unit must satisfy all of the elements and performance criteria of this unit.

There must be evidence that the individual has implemented a rice product manufacturing process for at least three rice products, including:

- accessed and interpreted workplace information to identify rice product manufacturing processing requirements
- confirmed supply of necessary materials and services
- conducted pre-start checks, started, operated, monitored and adjusted process equipment to achieve required outcomes
- selected, fitted and used personal protective equipment
- followed workplace health and safety procedures
- monitored control points and conducted inspections to confirm process remains within specification
- taken corrective action in response to out-of-specification results
- monitored supply and flow of materials to and from the rice product manufacturing process
- diagnosed common faults, and rectified or reported equipment failure within level of responsibility and according to workplace procedures
- completed workplace records according to procedures
- maintained work area to meet housekeeping standards.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- purpose and basic principles of the rice product manufacturing process, including:
  - process flow and the effect of rice product manufacturing process on the end product
  - product handling and storage requirements

- additives and raw materials/ingredients combined to create a finished product
- materials used in the process, including:
  - rice
  - ingredients
  - additives
- basic operating principles of equipment, including:
  - ingredient mixers
  - product manufacturing equipment
  - product packaging
  - weigher
- an operational understanding of main equipment components, including:
  - status and purpose of guards
  - equipment operating capacities and applications
  - purpose and location of sensors and related feedback instrumentation
  - services required and action to take if services are not available
  - inspection of equipment condition to identify any signs of wear
  - appropriate settings and/or related parameters
  - isolation or lock-out procedures
  - confirming that equipment is clean and correctly configured for processing requirements
  - confirming that sensors and controls are correctly positioned
  - confirming that scheduled maintenance has been carried out
  - confirming that all safety guards are in place and operational
  - product/process changeover procedures and responsibilities
- quality characteristics, including:
  - common causes of product variation, and corrective action
  - requirements of materials and effect of variation in ingredients on the rice product manufacturing process
  - sampling and testing associated with process monitoring and control
- equipment operating requirements, parameters and corrective action required where operation is outside specified parameters, including:
  - typical equipment faults and related causes
  - recognition of signs and symptoms of faulty equipment
  - early warning signs of potential problems
  - requirements of different shutdowns, including emergency and routine shutdowns, and procedures to follow in the event of a power outage
- methods used to monitor the rice product manufacturing process, including:
  - inspecting
  - measuring
  - testing

- contamination/food safety risks associated with the process, and related control measures
- cleaning and sanitation procedures
- work health and safety hazards and controls, including awareness of the limitations of protective clothing and equipment relevant to the work process
- isolation, lock-out and tag-out procedures and responsibilities
- procedures and responsibility for reporting production and performance information
- environmental issues and controls relevant to the process, including waste/rework collection and handling procedures related to the process.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - an industrial rice processing plant or an environment that accurately represents workplace conditions
- resources, equipment and materials:
  - personal protective clothing and equipment
  - commercial ingredient mixers and rice product manufacturing equipment and services
  - ingredients required for the product manufacturing process
  - cleaning materials and equipment
- specifications:
  - work procedures, including advice on safe work practices, food safety, quality and environmental requirements
  - information on equipment capacity and operating parameters
  - equipment operating instructions and manuals
  - production schedule
  - recipes, specifications, control points and processing parameters
  - sampling schedules and test procedures and equipment
  - documentation and recording requirements and procedures
  - cleaning procedures.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volumes, including Implementation Guides, are available at VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# FBPGRA3014 Implement a rice seed preparation and storage system

## Modification History

Release	Comments
Release 1	This version released with the FBP Food, Beverage and Pharmaceuticals Training Package Version 1.0

## Application

This unit of competency describes the skills and knowledge required to manage preparation and storage of rice seeds for planting.

The unit applies to individuals who are production workers in the rice grain receivals sites and are responsible for receiving paddy rice for preparation and storage for agricultural use. They work under minimal supervision and take responsibility for their own work and that of others in their team.

All work must be carried out to comply with workplace procedures, in accordance with State/Territory food safety, and work health and safety, regulations and legislation that apply to the workplace.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

## Pre-requisite Unit

Nil

## Unit Sector

Grain processing (GRA)

## Elements and Performance Criteria

Elements	Performance criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>

Elements	Performance criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Produce high quality seed	1.1 Label seed clearly and accurately to company requirements 1.2 Apply improvement measures to agricultural seed stock to be stored
2. Determine seed requirements	2.1 Calculate seed requirements for the area to be sown 2.2 Check seed varieties against available market data and details, and report according to workplace procedures
3. Evaluate, grade and test seed stocks	3.1 Ensure seed is graded to required size 3.2 Collect seed samples, package and send for testing according to workplace procedures 3.3 Maintain workplace records according to workplace procedures
4. Collect and deliver seed	4.1 Estimate delivery or supply terms, and apply when collecting or delivering seed 4.2 Ensure seed sold or purchased conforms to legislation and regulations 4.3 Arrange appropriate delivery resources according to workplace procedures 4.4 Complete sales and purchase documentation according to workplace procedures
5. Store seed safely	5.1 Select and prepare seed storage within food safety requirements 5.2 Organise seed handling and storage equipment and related attachments and materials 5.3 Ensure seed is stored safely under conditions that maintain quality and viability according to workplace health and safety procedures 5.4 Monitor seed systematically for pest status, and apply control measures according to workplace procedures 5.5 Label seed according to workplace procedures 5.6 Clean and maintain seed storage and work area according to workplace procedures



## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skills	Description
Reading	<ul style="list-style-type: none"> <li>Reads and interprets plans, specifications, and other documentation from a variety of sources, and consolidates information to determine rice storage and preparation requirements</li> </ul>
Writing	<ul style="list-style-type: none"> <li>Accurately records and completes organisational documentation using clear language, correct spelling, grammar and terminology when reporting and maintaining rice grain storage records</li> </ul>
Numeracy	<ul style="list-style-type: none"> <li>Makes calculations appropriate for measuring and estimating rice weights and volumes for seed sowing and storage</li> <li>Performs mathematical calculations for testing and interpreting rice samples and results to determine action</li> </ul>
Oral communication	<ul style="list-style-type: none"> <li>Effectively participates in verbal exchanges using collaborative and inclusive techniques, including active listening and questioning and reading of verbal and non-verbal signals to convey and clarify information</li> </ul>
Navigate the world of work	<ul style="list-style-type: none"> <li>Takes full responsibility for following policies, procedures, industry standards and legislative requirements</li> <li>Identifies and acts on issues that contravene relevant policies, procedures and legal requirements</li> </ul>
Interact with others	<ul style="list-style-type: none"> <li>Cooperates with others and contributes to work practices where joint outcomes are expected and deadlines are to be met</li> </ul>
Get the work done	<ul style="list-style-type: none"> <li>Takes responsibility for planning, sequencing and prioritising tasks and own workload for efficiency and effective outcomes</li> <li>Makes routine decisions and implements standard procedures for routine tasks, using formal decision-making processes for more complex and non-routine situations</li> <li>Uses the main features and functions of digital tools to complete work tasks and access information</li> </ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPGRA3014 Implement a rice seed preparation	ZRGRPSP3A Operate a rice seed preparation and	Updated to meet Standards for Training Packages	Equivalent unit

Code and title current version	Code and title previous version	Comments	Equivalence status
and storage system	storage system	Changes to title, elements and performance criteria	

## Links

Companion Volumes, including Implementation Guides, are available at VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# Assessment Requirements for FBPGRA3014 Implement a rice seed preparation and storage system

## Modification History

Release	Comments
Release 1	This version released with the FBP Food, Beverage and Pharmaceuticals Training Package Version 1.0

## Performance Evidence

An individual demonstrating competency in this unit must satisfy all of the elements and performance criteria of this unit.

There must be evidence that the individual has implemented a rice seed preparation and storage system for at least three rice grain varieties, including:

- accessed and interpreted workplace information to identify seed preparation and storage requirements
- confirmed availability of necessary seed handling and storage equipment and related attachments, materials and services
- followed workplace health and safety procedures
- followed workplace food safety procedures
- monitored the seed preparation and storage process and equipment operation to identify out-of-specification results or non-compliance, including:
  - maintaining seed segregation
  - collecting seed samples
  - recording information
  - testing seeds
- diagnosed common faults, and rectified or reported equipment failure within level of responsibility and according to workplace procedures
- taken corrective action in response to out-of-specification results or non-compliance
- calculated seed requirements for planting
- maintained work area to meet housekeeping standards
- maintained workplace records.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- purpose and basic operating principles of the seed preparation and storage process

- seed varieties and related treatments, including:
  - cleaning
  - handling
  - storage requirements
- rice seed varieties, market demand and availability
- methods to identify and separate weed seeds and contaminants from seed stock
- optimal storage/germination conditions and how these can be achieved
- seed pests and related control measures
- sources of purchased seed
- sampling and testing procedures
- methods used to calculate seed requirements
- methods of measuring rice condition and controlling the handling and storage conditions
- common causes of variation in rice quality/handling/storage practice, and corrective actions required
- significance and methods of monitoring control points within the seed storage and preparation process
- operation and monitoring of equipment and processes, including control panels and systems
- workplace health and safety hazards and controls
- procedures and responsibility for reporting performance information
- seed preparation and storage process and equipment, including:
  - taking samples and conducting tests
  - monitoring conditions, including, moisture, humidity and temperature of storage facilities
  - effectiveness of measures to prevent pest infestation
- workplace procedures, regulatory and licensing requirements for seed preparation and storage
- legislation relevant to this industry, including:
  - food standards code, including, labelling, weights and measures, and food safety
  - agricultural seed
  - environmental management
  - work health and safety
  - anti-discrimination and equal opportunity
- seed preparation and storage equipment, including:
  - transfer equipment
  - weighers
  - storage bins
- seed improvement measures, including:
  - roguing of off-types and undesirable weeds
  - grading out weed seeds, small grains and other impurities
- sales, packaging and transport of rice for agricultural purposes, including:

- sales and delivery procedures and documentation
- packaging methods
- transport methods and arrangements
- seed testing, including:
  - purity testing
  - grain size
  - viability
- cleaning requirements and cleaning records.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - an industrial rice processing plant or an environment that accurately represents workplace conditions
- resources, equipment and materials:
  - personal protective clothing and equipment
  - seed control system
  - seed preparation, handling and storage equipment
  - cleaning materials and equipment
- specifications:
  - work procedures, including advice on safe work practices, food safety, quality and environmental requirements
  - information on equipment capacity and operating parameters
  - equipment operating instructions and manuals
  - sampling schedules and test procedures and equipment
  - documentation and recording requirements and procedures
  - communication and recording systems and procedures
  - cleaning procedures, records/clearance
  - production schedule
  - routine preventative maintenance schedule as required.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volumes, including Implementation Guides, are available at VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## FBPGRA3015 Implement a rice whitening process

### Modification History

Release	Comments
Release 1	This version released with the FBP Food, Beverage and Pharmaceuticals Training Package Version 1.0

### Application

This unit of competency describes the skills and knowledge required to take brown rice and convert it to white rice through a friction abrasive whitening process.

The unit applies to individuals who are production workers in the rice processing environment and are responsible for the rice whitening process. They work under minimal supervision and take responsibility for their own work and that of others in their team.

All work must be carried out to comply with workplace procedures, in accordance with State/Territory food safety, and work health and safety, regulations and legislation that apply to the workplace.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

### Pre-requisite Unit

Nil

### Unit Sector

Grain processing (GRA)

### Elements and Performance Criteria

Elements	Performance criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare for safe work in a rice whitening process	1.1 Select and fit personal safety protection equipment according to workplace safety procedures 1.2 Select and fit hygiene protection equipment according to

Elements	Performance criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	workplace food safety hygiene procedures 1.3 Perform personal hygiene cleaning procedures 1.4 Receive and interpret instructions on rice whitening activity and performance requirements
2. Prepare the rice whitening equipment for operation	2.1 Ensure raw materials are available to meet operating requirements 2.2 Identify and confirm the status of cleaning and maintenance requirements 2.3 Fit and adjust machine components and related attachments according to operating requirements 2.4 Enter processing/operating parameters to meet safety and production specifications 2.5 Check, adjust and conduct routine maintenance on equipment to ensure required performance 2.6 Conduct pre-start checks according to workplace instructions
3. Operate and monitor the rice whitening process	3.1 Start up and operate process according to workplace procedures 3.2 Monitor equipment to identify variation in operating conditions, and adjust according to product specifications 3.3 Identify variation in equipment operation, and repair or report maintenance requirements according to workplace reporting procedures 3.4 Implement required safety procedures 3.5 Collect samples and test to ensure rice meets specification 3.6 Identify, rectify or report out-of-specification product/process to maintain process within specification 3.7 Ensure workplace meets housekeeping standards 3.8 Maintain records according to workplace requirements
4. Shut down the rice whitening process	4.1 Identify appropriate shutdown procedure 4.2 Shut down the process safely according to workplace procedures 4.3 Identify maintenance requirements, and report according to workplace procedures

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skills	Description
Reading	<ul style="list-style-type: none"> <li>Reads and interprets instructions, operating procedures, specifications, and other documentation from a variety of sources, and consolidates information to determine rice production actions and activity</li> </ul>
Writing	<ul style="list-style-type: none"> <li>Accurately records and completes organisational documentation using clear language, correct spelling, grammar and terminology when reporting and maintaining rice processing records</li> </ul>
Numeracy	<ul style="list-style-type: none"> <li>Interprets and manipulates numerical information for volumes, weights and measures</li> <li>Performs mathematical calculations to check, interpret and confirm results of system tests</li> </ul>
Oral communication	<ul style="list-style-type: none"> <li>Effectively participates in verbal exchanges using collaborative and inclusive techniques, including active listening and questioning and reading of verbal and non-verbal signals to convey and clarify information</li> </ul>
Navigate the world of work	<ul style="list-style-type: none"> <li>Takes full responsibility for following policies, procedures and industry standards</li> <li>Identifies and acts on issues that contravene relevant policies, procedures and legal requirements</li> </ul>
Interact with others	<ul style="list-style-type: none"> <li>Cooperates with others and contributes to work practices where joint outcomes are expected and deadlines are to be met</li> </ul>
Get the work done	<ul style="list-style-type: none"> <li>Takes responsibility for planning, sequencing and prioritising tasks and workload for efficiency and effective outcomes</li> <li>Makes routine decisions and implements standard procedures for routine tasks, using formal decision-making processes for more complex and non-routine situations</li> <li>Contributes to continuous improvement of current work practices by applying basic principles of analytical and lateral thinking</li> <li>Uses the main features and functions of digital tools to complete work tasks and access information</li> </ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
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Code and title current version	Code and title previous version	Comments	Equivalence status
FBPGRA3015 Implement a rice whitening process	ZRGRPRW2A Operate a rice whitening process	Updated to meet Standards for Training Packages  Change of coding to reflect revised AQF level  Changes to the title, elements and performance criteria	No equivalent unit

## Links

Companion Volumes, including Implementation Guides, are available at VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# Assessment Requirements for FBPGRA3015 Implement a rice whitening process

## Modification History

Release	Comments
Release 1	This version released with the FBP Food, Beverage and Pharmaceuticals Training Package Version 1.0

## Performance Evidence

An individual demonstrating competency in this unit must satisfy all of the elements and performance criteria of this unit.

There must be evidence that the individual has implemented a rice whitening process for at least three rice grain varieties, including:

- accessed and interpreted workplace information for rice whitening process requirements
- confirmed supply of necessary materials and services
- conducted pre-start checks, started, operated, monitored and adjusted process equipment to achieve required outcomes
- selected, fitted and used personal protective equipment
- followed workplace health and safety procedures
- monitored control points and conducted inspections to confirm process remains within specification
- selected, fitted and used personal protective equipment and followed workplace health and safety procedures
- taken corrective action and adjustments in response to out-of-specification results
- monitored supply and flow of materials to and from the rice whitening process
- diagnosed common faults, and rectified or reported equipment failure within level of responsibility and according to workplace procedures
- completed workplace records according to procedures
- maintained work area to meet housekeeping standards.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- purpose and basic principles of the rice whitening process, including:

- visual identification of short, medium and long grain rice varieties used within the organisation
- process flow and the effect of rice whitening process on the end product
- degree of whitening required and relation to number of passes
- basic operating principles of equipment, including:
  - balance bins
  - abrasive whitener
  - friction whitener
  - vertical or horizontal whiteners/water polishers
  - testing equipment
- an operational understanding of main equipment components, including:
  - status and purpose of guards
  - equipment operating capacities and applications
  - purpose and location of sensors and related feedback instrumentation
  - services required and action to take if services are not available
  - inspection of equipment condition to identify any signs of wear, including identifying holes in whitening screens, identifying worn scrolls, and making appropriate adjustments
  - appropriate settings and/or related parameters, including whitener weights adjustments to meet specifications
  - isolation or lock-out procedures
  - confirming that equipment is clean and correctly configured for processing requirements
  - confirming that sensors and controls are correctly positioned
  - scheduled maintenance requirements
  - product/process changeover procedures and responsibilities
- quality characteristics, including:
  - common causes of product variation, and corrective action, including moisture levels
  - requirements of materials and effect of variation in raw materials on the rice whitening preparation process
  - sampling and testing associated with process monitoring and control
  - equipment operating requirements, parameters and corrective action required where operation is outside specified parameters, including:
    - out-of-specifications troubleshooting procedures
    - typical equipment faults and related causes, including recognition of signs and symptoms of faulty equipment and early warning signs of potential problems
    - requirements of different shutdowns, including emergency and routine weekly shutdowns, product changeover, and procedures to follow in the event of a power outage
    - requirements of different start-up procedures following shutdown
- methods used to monitor the rice whitening process, including:

- inspecting
- measuring
- testing, including moisture, non-metallic foreign materials, metallic foreign materials
- contamination/food safety risks associated with the process, and related control measures
- cleaning and sanitation procedures
- work health and safety hazards and controls, including awareness of the limitations of protective clothing and equipment relevant to the work process
- isolation, lock-out and tag-out procedures and responsibilities
- procedures and responsibility for reporting production and performance information
- environmental issues and controls relevant to the process, including waste/rework collection and handling procedures related to the process.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - an industrial rice processing plant or an environment that accurately represents workplace conditions
- resources, equipment and materials:
  - personal protective clothing and equipment
  - industrial paddy grain cleaning machine that has the capacity to process at least four tonnes per hour
  - paddy destoner that has the capacity to process at least four tonnes per hour
  - rice to be whitened
  - cleaning materials and equipment
- specifications:
  - work procedures, including advice on safe work practices, food safety, quality and environmental requirements
  - equipment operating instructions and manuals
  - production schedule
  - customer specifications, control points and processing parameters
  - sampling schedules and test procedures and equipment as required
  - documentation and recording requirements and procedures
  - cleaning procedures.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volumes, including Implementation Guides, are available at VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# FBPGRA3016 Implement a rice flour blending process

## Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 1.0.

## Application

This unit of competency describes the skills and knowledge required to blend rice flour to specification using rice flour blending equipment.

The unit applies to individuals who are production workers in the rice processing environment and are responsible for the rice flour blending process. They work under minimal supervision and take responsibility for their own work and that of others in their team.

All work must be carried out to comply with workplace procedures, in accordance with State/Territory food safety, and work health and safety, regulations and legislation that apply to the workplace.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

## Pre-requisite Unit

Nil

## Unit Sector

Grain processing (GRA)

## Elements and Performance Criteria

Elements	Performance criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare for safe work in a rice flour blending process	1.1 Select and fit personal safety protection equipment according to workplace safety procedures 1.2 Select and fit hygiene protection equipment according to

Elements	Performance criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	workplace food safety hygiene procedures 1.3 Perform personal hygiene cleaning procedures 1.4 Receive and interpret instructions on rice flour blending activity and performance requirements
2. Prepare the rice flour blending equipment for operation	2.1 Ensure raw materials are available to meet operating requirements 2.2 Identify and confirm the status of cleaning and maintenance requirements 2.3 Fit and adjust machine components and related attachments according to operating requirements 2.4 Enter processing/operating parameters to meet safety and production specifications 2.5 Check, adjust and conduct routine maintenance on equipment to ensure required performance 2.6 Conduct pre-start checks according to workplace instructions
3. Operate and monitor the rice flour blending process	3.1 Start up and operate process according to workplace procedures 3.2 Monitor equipment to identify variation in operating conditions, and adjust according to product specifications 3.3 Identify variation in equipment operation, and repair or report maintenance requirements according to workplace reporting procedures 3.4 Implement required safety procedures 3.5 Collect samples and test to ensure rice meets specification 3.6 Identify, rectify or report out-of-specification product/process to maintain process within specification 3.7 Ensure workplace meets housekeeping standards 3.8 Maintain records according to workplace instructions
4. Shut down the rice flour blending process	4.1 Identify appropriate shutdown procedure 4.2 Shut down the process safely according to workplace procedures 4.3 Identify maintenance requirements, and report according to workplace procedures

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skills	Description
Reading	<ul style="list-style-type: none"> <li>Reads and interprets instructions, operating procedures, specifications, and other documentation from a variety of sources, and consolidates information to determine rice production actions and activity</li> </ul>
Writing	<ul style="list-style-type: none"> <li>Accurately records and completes organisational documentation using clear language, correct spelling, grammar and terminology when reporting and maintaining rice processing records</li> </ul>
Numeracy	<ul style="list-style-type: none"> <li>Interprets and manipulates numerical information for volumes, weights and measures</li> <li>Performs mathematical calculations to check, interpret and confirm results of system tests</li> </ul>
Oral communication	<ul style="list-style-type: none"> <li>Effectively participates in verbal exchanges using collaborative and inclusive techniques, including active listening and questioning, and reading of verbal and non-verbal signals to convey and clarify information</li> </ul>
Navigate the world of work	<ul style="list-style-type: none"> <li>Takes full responsibility for following policies, procedures and industry standards</li> <li>Identifies and acts on issues that contravene relevant policies, procedures and legal requirements</li> </ul>
Interact with others	<ul style="list-style-type: none"> <li>Cooperates with others and contributes to work practices where joint outcomes are expected and deadlines are to be met</li> </ul>
Get the work done	<ul style="list-style-type: none"> <li>Takes responsibility for planning, sequencing and prioritising tasks and workload for efficiency and effective outcomes</li> <li>Makes routine decisions and implements standard procedures for routine tasks, using formal decision-making processes for more complex and non-routine situations</li> <li>Contributes to continuous improvement of current work practices by applying basic principles of analytical and lateral thinking</li> <li>Uses the main features and functions of digital tools to complete work tasks and access information</li> </ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
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Code and title current version	Code and title previous version	Comments	Equivalence status
FBPGRA3016 Implement a rice flour blending process	ZRGRPRB2A Operate a rice flour blending process	Updated to meet Standards for Training Packages  Change of coding to reflect revised AQF level  Changes to the title, elements and performance criteria	No equivalent unit

## Links

Companion Volumes, including Implementation Guides, are available at VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# Assessment Requirements for FBPGRA3016 Implement a rice flour blending process

## Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 1.0.

## Performance Evidence

An individual demonstrating competency in this unit must satisfy all of the elements and performance criteria of this unit.

There must be evidence that the individual has implemented a rice flour blending process for at least three rice grain varieties, including:

- accessed and interpreted workplace information to identify rice flour blending requirements
- confirmed supply of necessary materials and services
- conducted pre-start checks, started, operated, monitored and adjusted process equipment to achieve required outcomes
- stored blended product according to food health and safety requirements
- selected, fitted and used personal protective equipment
- followed workplace health and safety procedures
- monitored control points and conducted inspections to confirm process remains within specification
- taken corrective action in response to out-of-specification results
- monitored supply and flow of materials to and from the rice flour blending process
- diagnosed common faults, and rectified or reported equipment failure within level of responsibility and according to workplace procedures
- completed workplace records according to procedures
- maintained work area to meet housekeeping standards.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- purpose and basic principles of the rice flour blending process, including:

- visual identification of short, medium and long grain varieties of rice and rice flour used within the organisation
- process flow and the effect of rice flour blending process on the end product
- raw materials used in blending, including rices, starch and gel
- basic operating principles of equipment, including:
  - an operational understanding of main equipment components
  - status and purpose of guards
  - equipment operating capacities and applications
  - purpose and location of sensors and related feedback instrumentation
  - services required and action to take if services are not available
  - inspection of equipment condition to identify any signs of wear
  - appropriate settings and/or related parameters
  - isolation or lock-out procedures
  - configuring processing requirements
  - confirming that sensors and controls are correctly positioned
  - confirming that scheduled maintenance has been carried out
  - confirming that all safety guards are in place and operational
  - product/process changeover procedures and responsibilities
- quality characteristics and requirements of rice flour and ingredients, including:
  - common causes of product variation, and corrective action
  - sampling and testing associated with process monitoring and control
- equipment operating requirements, parameters and corrective action required where operation is outside specified parameters, including:
  - typical equipment faults and related causes, including recognition of signs and symptoms of faulty equipment, and early warning signs of potential problems
  - requirements of different shutdowns, including emergency and routine shutdowns, and procedures to follow in the event of a power outage
- methods used to monitor the rice flour blending, including:
  - inspecting
  - measuring
  - testing
- contamination/food safety risks associated with rice flour blending and related control measures
- rice flour blending equipment, including:
  - ribbon blenders
  - sieves
  - weighing equipment
  - mechanical/pneumatic raw materials transfer equipment
- cleaning and sanitation procedures
- work health and safety hazards and controls, including awareness of the limitations of protective clothing and equipment relevant to the work process

- isolation, lock-out and tag-out procedures and responsibilities
- procedures and responsibility for reporting production and performance information
- environmental issues and controls relevant to the process, including waste/rework collection and handling procedures related to the process.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - an industrial rice processing plant or an environment that accurately represents workplace conditions
- resources, equipment and materials:
  - personal protective clothing and equipment
  - commercial rice flour blending equipment and services
  - commercial volume of rice flour to be blended
  - cleaning materials and equipment
- specifications:
  - work procedures, including advice on safe work practices, food safety, quality and environmental requirements
  - information on equipment capacity and operating parameters
  - equipment operating instructions and manuals
  - production schedule
  - specifications, control points and processing parameters
  - sampling schedules and test procedures and equipment
  - documentation and recording requirements and procedures
  - cleaning procedures.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volumes, including Implementation Guides, are available at VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## FBPGRA4001 Control power and automation for milling processes

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package version 1.0.

### Application

This unit of competency describes the skills and knowledge required to match milling requirements to available services and equipment.

The unit applies to millers who are required to set and control milling equipment in industrial flour mills, including semolina mills and mills without purifiers. It includes development of strategies for effective use of power and automation, and directing programmed and other maintenance in order to ensure that milling performance is maintained.

All work must be carried out to comply with workplace procedures, in accordance with State/Territory work health and safety legislation that apply to the workplace.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

### Pre-requisite Unit

Nil

### Unit Sector

Grain processing (GRA)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Establish range of utilities and services	1.1 Identify distributed services used in mill 1.2 Ensure schematics showing location and distribution of services

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
used by mill	<p>are available and understood by key personnel</p> <p>1.3 Categorise services as critical to mill operation or ancillary according to workplace procedures</p> <p>1.4 Develop contingency strategies in the event of utilities and services requiring maintenance or repair</p>
2. Review mill electric power system for start-up and power demand management	<p>2.1 Identify mains supply terminal, input voltage and electricity supplier</p> <p>2.2 Identify mill transformers and distribution to sub-mains</p> <p>2.3 Identify back-up generation and supply system, including automatic and manual operation conditions</p> <p>2.4 Identify location of mill equipment and areas supplied by each sub-main and switchboard</p> <p>2.5 Recognise key features and requirements of installed electrical safety systems, including lock off and isolation switches</p> <p>2.6 Obtain maximum demand and diversity factor (power factor correction) and identify implications for mill operations</p> <p>2.7 Establish motor control and start-up procedures according to manufacturer, engineer and supply authority procedures</p>
3. Establish scope of hydrocarbon fuel use by mill	<p>3.1 Identify capacity and fuel use of any on-site boilers</p> <p>3.2 Locate emergency generators and their fuel source</p> <p>3.3 Identify other fuel-powered equipment and processes</p> <p>3.4 Locate location of fuel reservoirs/tanks and review against mill strategy for the prevention of dust explosions</p>
4. Establish type and location of mill controls	<p>4.1 Identify mill operations and equipment controlled automatically</p> <p>4.2 Identify mill operations and equipment controlled through central process control stations/terminals</p> <p>4.3 Identify mill operations and equipment controlled manually</p> <p>4.4 Determine back-up strategies for mill control in the event of failure of control equipment</p>
5. Control pneumatic conveying system	<p>5.1 Determine processes where negative or positive pressure is required</p> <p>5.2 Monitor air speed and volume requirements for conveying tasks</p>

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	5.3 Select air speed and volume appropriate for exhausts 5.4 Balance negative pressure systems according to mill operation procedures 5.5 Monitor for abnormal increases in blow-line pressure 5.6 Determine cleaning intervals for dust collectors
6. Control wheat damping and conditioning	6.1 Monitor adequacy of water supply according to mill operation procedures 6.2 Determine if feed forward or feedback system is used 6.3 Supervise moisture testing of wheat according to workplace procedures 6.4 Set damping system controls for desired moisture level taking into account feed rate and lying-in time
7. Establish strategies and practices for efficient use of power and automation	7.1 Maximise throughput to mill capacity where possible 7.2 Ensure manufacturer maintenance and lubrication schedules are followed 7.3 Ensure standard operating procedures (SOPs) for controls and workstations are developed and up to date

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Numeracy	<ul style="list-style-type: none"> <li>Identify maximum power demand for mill</li> <li>Identify typical range of power demand for mill, taking into account scope of equipment and average production requirements</li> </ul>
Navigate the world of work	<ul style="list-style-type: none"> <li>Challenge and develop own management style and innovative practices</li> <li>Monitor adherence to legal and regulatory standards and responsibilities for self and others</li> <li>Consider own role in terms of contribution to broader goals of the work environment, and adapt and renegotiate role and</li> </ul>

Skill	Description
	responsibilities when this has the potential to increase effectiveness
Interact with others	<ul style="list-style-type: none"><li>• Use appropriate language and communication skills to facilitate discussions</li><li>• Provide information about innovative practices, processes and products</li><li>• Clarify the purpose and possible actions to be taken as a result of work-related communications</li></ul>
Get the work done	<ul style="list-style-type: none"><li>• Identify current innovative practice and organisational trends</li><li>• Use a computer, keyboard and software to collect and file research data</li><li>• Source, collect and organise a range of data about performance against targets</li><li>• Identify maintenance requirements and develop schedules</li></ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPGRA4001 Control power and automation for milling processes	FDFGR4001A Control power and automation for milling processes	Updated to meet Standards for Training Packages	Equivalent unit

## Links

Companion Volumes, including Implementation Guides, are available at VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>



# Assessment Requirements for FBPGRA4001 Control power and automation for milling processes

## Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package version 1.0.

## Performance Evidence

An individual demonstrating competency must satisfy all of the elements and performance criteria in this unit.

There must be evidence that, on at least one occasion, the individual has:

- interpreted schematics and identified range of utilities used by mill
- determined importance of services to mill operations
- identified key features and requirements of installed electrical safety systems
- matched milling requirements to available services and equipment, including electricity, gas and other fuels, steam generation, hydraulics and pneumatics
- used computerised and other control equipment to achieve desired milling outcomes
- determined fuel sources and power demand patterns for mill operations
- assessed fuel supply capacity
- determined control equipment and control options for mill
- established risk management and contingency strategies for mill power and automation
- integrated equipment maintenance and lubrication strategies with production requirements
- interpreted manuals, other technical information, diagrams and drawings
- applied safe work practices and identified work health and safety hazards and controls.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- types of electric motors and their advantages and disadvantages
- function and operational requirements of power system components, including:
  - mains supply terminal
  - mill transformers
  - back-up generation and supply system
  - electrical safety systems

- motor control and motor protection strategies
- demand and diversity factors
- fuel sources for mill uses, including:
  - on-site boilers
  - emergency generators
  - fuel powered equipment
- mechanical power transmission types and principles, including:
  - direct drives
  - belt drives
  - chain drives
  - gears
- factors influencing the velocity of particles in free air and in positive and negative air streams
- strategy for the prevention of dust explosions
- design principles used in exhaust systems for fans, ductwork and dust collectors
- advantages and disadvantages of axial flow, propeller and centrifugal fans
- advantages and disadvantages of forward, backward and radial bladed rotors
- types of mill controls and back-up strategies
- purpose and function of instrumentation, including:
  - proximity switches
  - position sensors
  - transducers
  - tachometers
  - flow meters
  - weighers
  - load cells
  - bin level indicators
  - pressure switches
  - programmable logic controllers (PLCs), system control and data acquisition (SCADA) systems, and other programmable instrumentation and systems
- mill equipment and its location and function
- maximum power demand for mill
- typical range of power demand for mill, taking into account scope of equipment and average production requirements.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - a workplace or an environment that accurately represents workplace conditions
- resources, equipment and materials:

- personal protective equipment relevant to flour milling operations
- sampling schedules and test procedures and equipment
- specifications:
  - work procedures, including advice on safe work practices, food safety, quality and environmental requirements
  - equipment manuals including operating parameters
  - specifications, control points and processing parameters
  - documentation and recording requirements and procedures.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volumes, including Implementation Guides, are available at VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# FBPGRA4002 Supervise testing processes for wheat and flour

## Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package version 1.0.

## Application

This unit of competency describes the skills and knowledge required to establish and supervise specific quality and testing processes for wheat and flour in a flour mill to ensure compliance with regulatory and commercial requirements.

The unit applies to individuals who set tests to be undertaken, establish acceptable limits and maintain accuracy in the mill testing regime. The emphasis in this unit is on the grain and flour specific quality and testing processes used in flour milling.

All work must be carried out to comply with workplace procedures, in accordance with State/Territory work health and safety, and food safety regulations, legislation and standards that apply to the workplace.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

## Pre-requisite Unit

Nil

## Unit Sector

Grain processing (GRA)

## Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Identify specification for mill products and performance	1.1 Identify customer specification according to customer order 1.2 Review range and availability of suitable grain to meet

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	<p>performance requirements</p> <p>1.3 Set target range for grain and flour tests to achieve customer specification, consistency and maximum yield</p> <p>1.4 Identify mill critical control points according to operating procedures</p> <p>1.5 Identify regulatory requirements relevant to mill and mill products including safe work practices, food safety and environmental requirements</p>
2. Establish sampling procedures and tests for grain	<p>2.1 Determine tests and sampling procedures for received grain</p> <p>2.2 Determine tests and sampling procedures for grists</p> <p>2.3 Determine tests and sampling procedures for grain conditioning</p>
3. Establish sampling procedures and tests for flour	<p>3.1 Determine flour tests to be undertaken at each reduction stage</p> <p>3.2 Determine number of samples to be taken to ensure representative results are achieved</p> <p>3.3 Determine reference tests required for milling</p> <p>3.4 Establish procedures for storage and labelling of samples according to work health and safety and environmental requirements</p>
4. Establish statistical process control procedures for mill	<p>4.1 Establish procedures for recording test results and monitoring period</p> <p>4.2 Establish normal distribution standard deviation targets for each test</p> <p>4.3 Monitor standard deviations for out of control results</p> <p>4.4 Review results against reference tests</p> <p>4.5 Determine root cause of out of control results</p>
5. Establish procedures for test equipment maintenance and accuracy	<p>5.1 Establish maintenance schedules for test equipment in conjunction with suppliers and maintenance staff</p> <p>5.2 Identify schedule and staff for calibration of test equipment</p> <p>5.3 Ensure written procedures for each test identify actions to be followed in the event of actual or suspected equipment malfunction according to workplace practices</p> <p>5.4 Arrange for testing of control samples at commencement of each shift or run</p> <p>5.5 Record test results and establish monitoring procedures to identify</p>

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	operator or equipment test result variations not related to variation in wheat or flour  5.6 Arrange for operator training or equipment variation as appropriate according to workplace needs

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"> <li>Interpret maintenance schedule and procedures for test equipment</li> <li>Interpret manuals, diagrams, drawings and other technical information</li> </ul>
Writing	<ul style="list-style-type: none"> <li>Establish maintenance schedules for test equipment</li> <li>Compile reports to disseminate information about equipment and milling performance to a range of audiences</li> </ul>
Numeracy	<ul style="list-style-type: none"> <li>Apply basic statistical skills sufficient to calculate averages, means and population and sample standard deviations from given data</li> <li>Determine calibration procedures and schedule for test equipment</li> </ul>
Navigate the world of work	<ul style="list-style-type: none"> <li>Challenge and develop own management style and innovative practices</li> <li>Monitor adherence to legal and regulatory standards and responsibilities for self and others</li> <li>Consider own role in terms of contribution to broader goals of the work environment and adapt and renegotiate role and responsibilities when this has the potential to increase effectiveness</li> </ul>
Interact with others	<ul style="list-style-type: none"> <li>Identify training for operators, where required</li> <li>Completing workplace documentation use appropriate language and communication skills to facilitate discussions</li> <li>Provide information about innovative practices, processes and products</li> <li>Clarify the purpose and possible actions to be taken as a result of work related communications</li> </ul>

Skill	Description
Get the work done	<ul style="list-style-type: none"><li>• Supervise wheat and flour related tests including tests for moisture, contamination/purity, protein level , protein quality, ash content, colour, starch proportion, gluten elasticity and extensibility</li><li>• Identify current innovative practice and organisational trends</li><li>• Use a computer, keyboard and software to collect and file research data</li><li>• Source, collect and organise a range of data about wheat and flour quality</li></ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPGRA4002 Supervise testing processes for wheat and flour	FDFGR4002A Supervise testing processes for wheat and flour	Updated to meet Standards for Training Packages	Equivalent unit

## Links

Companion Volumes, including Implementation Guides, are available at VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# Assessment Requirements for FBPGRA4002 Supervise testing processes for wheat and flour

## Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package version 1.0.

## Performance Evidence

An individual demonstrating competency must satisfy all of the elements and performance criteria in this unit.

There must be evidence that, on at least one occasion, the individual has:

- identified and interpreted customer requirements
- identified regulatory requirements for mill operation
- identified mill critical control points
- established sampling procedures and tests for grain
- determined sampling procedures and rates for tests
- established procedures for test equipment maintenance and accuracy
- established procedures for storage and labelling of samples
- integrated testing regime with HACCP system
- maintained integrity of mill testing regime through use of control and reference tests and appropriate calibration and maintenance of test equipment
- applied safe work practices and identified work health and safety hazards and controls.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- effect of reduction and break stages on flour characteristics, including:
  - protein level
  - protein quality
  - ash content
  - colour
  - starch proportion
  - dough rheology
- test and test procedures appropriate to grain, including:



- sample appearance and smell
- sieving for sample purity
- near infrared test (NIR) and other tests for moisture, protein content, colour and grain hardness
- difference between 'as is' and 'dry weight' and moisture corrected moisture results and conversion of other parameters
- gluten washing test for protein quality
- Hagberg Falling Number test, including conversion of results to Perten Liquefaction Numbers
- Kern chondrometer test and other specific weight tests
- tests and test procedures related to flour, including:
  - NIR tests for flour moisture, protein content, colour, water absorption and ash content
  - colour testing using Kent-Jones and Martin flour colour grader
  - Pekar test
  - laboratory sieve tests
  - Brabender Extensograph and Farinograph test for dough stretching
  - viscosity tests
  - starch damage tests
  - Chittick test for carbon dioxide release
  - baking tests
- reference tests used for calibration, including:
  - oven test for moisture
  - Zeleny test for protein quality
  - Single Kernel Characterisation System (SKCS) test
  - Stenvert test for hardness
  - electrophoresis test for variety
  - image analysis for particle size and colour
  - muffle furnace test for ash content
  - fibre tests
- expected extraction rate for different stages of the milling process
- Australian grain characteristics relevant to milling, including:
  - variety
  - wheat segregations, including soft, Australian Premium White (APW), Hard and Prime Hard (PH)
  - other Australian grain segregations
- typical composition of bread, biscuit and cake-making flours, including moisture, sugar, starch, protein, fibre and mineral matter
- flour characteristics giving rise to faults in bread, pasta or other flour based products, including:
  - incorrect flour strength
  - incorrect alpha-amylase activity

- incorrect amount of damaged starch
- bran contamination
- incorrect improver dosage
- heat damaged wheat
- tainted flour
- microbiology tests for grain and flour
- tests used in manufacture of by-products.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - a workplace or an environment that accurately represents workplace conditions
- resources, equipment and materials:
  - personal protective equipment relevant to flour milling operations
  - sampling schedules and test procedures and equipment
- specifications:
  - work procedures, including advice on safe work practices, food safety, quality and environmental requirements
  - equipment manuals including operating parameters
  - specifications, control points and processing parameters
  - documentation and recording requirements and procedures.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volumes, including Implementation Guides, are available at VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## FBPGRA4003 Manage mill logistics and support services

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package version 1.0.

### Application

This unit of competency describes the skills and knowledge required to manage support and logistics services to ensure safe and efficient operation of a flour mill and compliance with regulatory and commercial requirements.

The unit applies to individuals who establish and supervise the handling, storage, despatch and distribution of materials, including grain, flour and by-products. It also covers supervision of hygiene, work health and safety, pest control and security procedures.

All work must be carried out to comply with workplace procedures, in accordance with State/Territory work health and safety, and environmental regulations, legislation and standards that apply to the workplace.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

### Pre-requisite Unit

Nil

### Unit Sector

Grain processing (GRA)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Review mill plan and flow diagram to ensure all logistics and support	1.1 Ensure incorporation of grain and other materials receiving locations in mill plan 1.2 Ensure incorporation of all grain, flour and by-product storage

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
services are correctly identified	<p>facilities in mill plan</p> <p>1.3 Review mill flow diagram for inclusion of all break and reduction system equipment and intermediate storage facilities</p> <p>1.4 Ensure incorporation of all administration, maintenance, utilities and storage areas in mill plan</p> <p>1.5 Identify directly milled and blended flour products in product flow diagrams and relate to storage and despatch facilities</p>
2. Support product flow through mill	<p>2.1 Review facilities and set operating procedures for grain receipt according to mill requirements</p> <p>2.2 Ensure operators have required training and test materials for testing grain</p> <p>2.3 Ensure storage availability for received grain, including any divisions</p> <p>2.4 Confirm intermediate storage requirements based on forward production schedule</p> <p>2.5 Establish product handling, storage and despatch procedures for just-in-time customers according to safe work practices</p> <p>2.6 Establish product handling, storage and despatch procedures for daily, weekly or other regular deliveries</p> <p>2.7 Identify any non-standard storage and despatch requirements</p> <p>2.8 Establish and supervise inspection and cleaning regime for bins and silos</p> <p>2.9 Establish and supervise temperature and moisture testing for storage bins and silos</p>
3. Establish mill stock control system	<p>3.1 Integrate warehouse control and information requirements with mill management and control system according to workplace procedures</p> <p>3.2 Ensure customer orders are passed as soon as possible after receipt to production, storage, and transport departments</p> <p>3.3 Establish bin stock measuring frequency and method to meet mill stock control requirements</p> <p>3.4 Set and monitor weighbridge operation and recording procedures for all bulk inward and outward grain and mill products</p> <p>3.5 Identify locations for automatic and manual recording of internal product transfers</p>

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	3.6 Establish authorisation and access procedures for use of additives and adjuncts to meet mill stock control requirements
4. Supervise blending of flours to meet orders	<p>4.1 Supervise internal transfer of flour to holding bins</p> <p>4.2 Determine if volumetric, on-line or batch blending is to be used</p> <p>4.3 Determine formula for required blend, including any required additives and adjuncts</p> <p>4.4 Specify flours to be used to most economically achieve required formula according to flour blending requirements</p> <p>4.5 Supervise blending operation, including data entry into batch or process control computer</p> <p>4.6 Supervise transfer of blended flour to packing, despatch or storage</p>
5. Supervise product despatch	<p>5.1 Set and monitor 'give away' margin above minimum weight in packed flour</p> <p>5.2 Supervise operation of bag and sack packing, and closing equipment</p> <p>5.3 Determine, where required, if enterprise or contract vehicles are to be used</p> <p>5.4 Oversee bag, sack and bulk flour despatch as appropriate according to workplace practices</p> <p>5.5 Supervise packing and despatch of by-products, including palletisation of wheat-feed according to workplace practices</p>
6. Manage work health and safety, mill safety, security and regulatory procedures for mill or area of responsibility	<p>6.1 Establish or review perimeter security according to mill safety standards and security regulatory procedures</p> <p>6.2 Confirm site access control point for all vehicle and pedestrian traffic</p> <p>6.3 Review adequacy of truck holding and turnaround facilities</p> <p>6.4 Establish or review site work health and safety plan and procedures</p> <p>6.5 Ensure personal protective equipment, pedestrian walkways, and other pedestrian safety procedures are known and followed</p> <p>6.6 Review fire protection plan and fire protection facilities, including location and type of extinguishers, suppression systems and alarms</p> <p>6.7 Review visitor reception, registration and escort protocols for visitor access to non-administration areas</p>

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	6.8 Establish compliance procedures for environmental, food safety and other regulatory requirements
7. Review mill dust control procedures	<p>7.1 Review equipment and storage cleaning schedule and procedures for dust control effectiveness</p> <p>7.2 Arrange regular inspections for potential ignition sources to meet safety standards</p> <p>7.3 Review current dust control and dust explosion relief equipment and arrange for any required maintenance or additional dust control/dust explosion relief equipment according to manufacturers' specifications</p> <p>7.4 Establish training in dust control procedures for all employees and contractors</p>
8. Manage pest control procedures	<p>8.1 Review site pest control plan to meet production and food safety requirements</p> <p>8.2 Ensure all employees are trained to identify signs of insect, rodent and bird infestation</p> <p>8.3 Establish inspection, sampling and testing regime for all equipment, storage areas and all inward and outward goods</p> <p>8.4 Determine cause and type of infestations</p> <p>8.5 Specify appropriate control measures for insect, rodent and bird infestation</p> <p>8.6 Supervise protection of employees, community and product during treatments</p> <p>8.7 Ensure compliance with regulations and environmental guidelines</p> <p>8.8 Establish pest reporting and treatment recording procedures</p>
9. Manage contractors for mill or area of responsibility	<p>9.1 Establish and maintain schedule of contractors and their capabilities for services not performed in-house</p> <p>9.2 Confirm procedures and delegations for engaging contractors</p> <p>9.3 Develop site access register for contractors according to workplace requirements</p> <p>9.4 Ensure contractors are briefed on all mill regulatory and commercial requirements</p>

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"> <li>Interpret mill plan and customer orders</li> <li>Interpret manuals, diagrams, drawings and other technical information</li> </ul>
Writing	<ul style="list-style-type: none"> <li>Record despatch and distribution information</li> <li>Compile reports to disseminate information about storage and despatch to a range of audiences</li> </ul>
Numeracy	<ul style="list-style-type: none"> <li>Calculate grain holding capacity, including in terms of days of production</li> <li>Specify grain divisions on receipt to suit later blending requirements</li> </ul>
Navigate the world of work	<ul style="list-style-type: none"> <li>Challenge and develop own management style and innovative practices</li> <li>Monitor adherence to legal and regulatory standards and responsibilities for self and others</li> <li>Consider own role in terms of contribution to broader goals of the work environment and adapt and renegotiate role and responsibilities when this has the potential to increase effectiveness</li> </ul>
Interact with others	<ul style="list-style-type: none"> <li>Use appropriate language and communication skills to facilitate discussions</li> <li>Provide information about innovative practices, processes and products</li> <li>Clarify the purpose and possible actions to be taken as a result of work-related communications</li> </ul>
Get the work done	<ul style="list-style-type: none"> <li>Schedule flour blending to suit customer requirements and transport logistics</li> <li>Assess equipment and storage areas for dust control risks</li> <li>Identify current innovative practice and organisational trends</li> <li>Use a computer, keyboard and software to collect and file research data</li> <li>Source, collect and organise a range of data about performance against targets</li> </ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPGRA4003 Manage mill logistics and support services	FDFGR4003A Manage mill logistics and support services	Updated to meet Standards for Training Packages	Equivalent unit

## Links

Companion Volumes, including Implementation Guides, are available at VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>



# Assessment Requirements for FBPGRA4003 Manage mill logistics and support services

## Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package version 1.0.

## Performance Evidence

An individual demonstrating competency must satisfy all of the elements and performance criteria in this unit.

There must be evidence that, on at least one occasion, the individual has:

- determined mill requirements for logistics and services, including:
  - stock control
  - transport and storage
  - blending
  - packing and despatch
  - security
  - pest control
- analysed flow of operations
- assessed requirements and capacity to support each stage of production
- assessed operator training for product testing
- specified grain divisions on receipt to suit later blending requirements
- scheduled flour blending to suit customer requirements and transport logistics
- assessed equipment and storage areas for dust control risks
- related rate of production to storage capacity
- identified requirements of mill customers and determined if orders are to be directly filled or met out of storage
- identified non-standard storage and despatch requirements
- supervised blending procedures to ensure customer requirements are met
- assessed risks and hazards in the workplace
- evaluated and established processes and procedures
- supervised despatch procedures
- ensured compliance with regulations and environmental guidelines
- established pest reporting and treatment recording procedures
- managed pest and dust control techniques in a mill

- accessed and used mill control system
- established procedures for on-site access for contractors.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- methods of storing and handling grain, flour, bran and by-products
- temperature and moisture-testing techniques for grain storage bins and silos
- dust control techniques
- dust explosion relief systems and equipment
- fire warning and control techniques
- flour blending techniques and equipment
- flour milling process, including purpose of the break and reduction systems
- advantages and disadvantages of volumetric, batch and on-line flour blending techniques
- usage requirements and formulas for additives and adjuncts
- types of warehouse control and information systems
- equipment used in flour blending, including:
  - weighers
  - mixers and homogenisers
  - pneumatic and mechanical feeders and conveyors
  - magnets, sifters and exhausts
- identification characteristics for pest insects, rodents and birds
- signs of insect and rodent infestation
- strategies to eliminate or reduce pests
- optimum treatments for insect, rodent and bird infestations
- work health and safety hazards and controls
- safe procedures for handling, using and storing pesticides and dangerous goods, identifying identification of information provided on labels and, where required, handling of gas cylinders
- typical risk management and contingency planning techniques for a flour mill.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - a workplace or an environment that accurately represents workplace conditions
- resources, equipment and materials:
  - personal protective equipment relevant to flour milling operations
  - customer orders
  - grain, flour and by-products and required storage facilities
  - cleaning procedures, materials and equipment

- specifications:
  - work procedures, including advice on safe work practices, food safety, quality and environmental requirements
  - equipment manuals including operating parameters
  - documentation and recording requirements and procedures.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volumes, including Implementation Guides, are available at VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## FBPGRA4004 Establish and supervise dust control procedures in a grain processing enterprise

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package version 1.0.

### Application

This unit of competency describes the skills and knowledge required to establish and supervise dust control procedures in a grain milling enterprise. It includes procedures for the identification of risk factors, establishment of preventative and hygiene measures, use of explosion relief and fire suppression systems, and arranging training for employees.

The unit applies to individuals who manage and supervise in grain-related enterprises, including flour and stockfeed mills and grain storage facilities who have responsibility for the development and detailed implementation of dust control and dust explosion prevention strategies.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

### Pre-requisite Unit

Nil

### Unit Sector

Grain processing (GRA)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Monitor dust explosion risk factors	1.1 Establish and monitor procedures for detecting potential explosive atmosphere

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	<p>1.2 Set procedures for reporting visible dust leaks</p> <p>1.3 Confirm and enforce no smoking policy</p> <p>1.4 Establish and monitor reporting regime for potential ignition sources</p> <p>1.5 Establish and supervise manual and automatic temperature, smoke and moisture monitoring for all grain, flour, feed and other by-product storage</p> <p>1.6 Establish and confirm regulation of systems to minimise fungal and insect infestation caused by temperature increases</p>
2. Establish dust control procedures	<p>2.1 Install and monitor dust aspiration or suction ventilation systems according to systems' specifications</p> <p>2.2 Establish dust-checking procedures for all confined spaces</p> <p>2.3 Establish monitoring procedures for dust collector performance and output</p> <p>2.4 Establish procedures for resealing all dust leaks</p> <p>2.5 Undertake random and periodical checks on performance of dust control procedures</p> <p>2.6 Assess and approve any variation in cleaning and hygiene procedures</p> <p>2.7 Minimise storage of combustible materials in mill</p> <p>2.8 Establish minimum dust levels required for mandatory use of personal protective equipment</p> <p>2.9 Establish procedures for monitoring and control of environmental dust release</p>
3. Integrate equipment use, monitoring and maintenance with dust control procedures	<p>3.1 Develop regular cleaning schedule for all surfaces in contact with graining or flour according to workplace requirements</p> <p>3.2 Establish and confirm mill equipment condition monitoring schedule with maintenance department</p> <p>3.3 Establish regular lubrication schedules for bearings, pulleys, shafts and other moving and friction surfaces</p> <p>3.4 Promote use of anti-static materials where possible</p> <p>3.5 Establish approval, tagging and monitoring procedures for use of all portable tools and equipment in mill</p>
4. Establish fire and dust	4.1 Review adequacy of current dust control and dust explosion relief

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
explosion suppression systems	equipment and arrange for any required maintenance 4.2 Arrange for any required additional dust control/dust explosion relief equipment in existing protected areas 4.3 Investigate potential for use of fire and explosion suppression systems in areas not currently protected 4.4 Locate and establish inspection regime for all explosion relief panels 4.5 Set test and maintenance procedures for all existing fire and explosion suppression systems
5. Supervise dust and fire control training	5.1 Identify fire and dust wardens for mill areas 5.2 Establish emergency procedures according to site and workplace safety requirements 5.3 Identify dust and fire control content for use in induction training 5.4 Identify training needs of existing employees 5.5 Establish dust and fire control training arrangements

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"> <li>Interpret automatic and manual monitoring techniques for dust control against enterprise needs</li> <li>Interpret manuals, diagrams, drawings and other technical information</li> </ul>
Writing	<ul style="list-style-type: none"> <li>Schedule housekeeping, training, and maintenance procedures to achieve objectives while minimising impact on production</li> <li>Establish training records</li> <li>Compile reports to disseminate information about equipment and milling performance to a range of audiences</li> </ul>
Numeracy	<ul style="list-style-type: none"> <li>Set an allocation for dust and fire control training in the training budget</li> </ul>

Skill	Description
Navigate the world of work	<ul style="list-style-type: none"> <li>• Monitor adherence to legal and regulatory standards and responsibilities for self and others</li> <li>• Consider own role in terms of contribution to broader goals of the work environment, and adapt and renegotiate role and responsibilities when this has the potential to increase effectiveness</li> </ul>
Interact with others	<ul style="list-style-type: none"> <li>• Appoint internal trainers and external training providers</li> <li>• Use appropriate language and communication skills to facilitate discussions</li> <li>• Clarify the purpose and possible actions to be taken as a result of work-related communications</li> </ul>
Get the work done	<ul style="list-style-type: none"> <li>• Analyse areas and equipment in grain enterprises for dust and fire risk</li> <li>• Identify current innovative practice and organisational trends</li> <li>• Use a computer, keyboard and software to collect and file research data</li> <li>• Source, collect and organise a range of data about performance against targets</li> </ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPGRA4004 Establish and supervise dust control procedures in a grain processing enterprise	FDFGR4004A Establish and supervise dust control procedures in a grain processing enterprise	Updated to meet Standards for Training Packages	Equivalent unit

## Links

Companion Volumes, including Implementation Guides, are available at VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# Assessment Requirements for FBPGRA4004 Establish and supervise dust control procedures in a grain processing enterprise

## Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package version 1.0.

## Performance Evidence

An individual demonstrating competency must satisfy all of the elements and performance criteria in this unit.

There must be evidence that, on at least one occasion, the individual has:

- analysed work areas and equipment in grain enterprises for dust and fire risk
- scheduled housekeeping, training and maintenance procedures to achieve objectives while minimising impact on production, including:
  - scheduling maintenance for dust suppression systems and equipment, and explosion relief panels
  - bin and silo inspections and cleaning
  - testing and maintenance of fire and explosion suppression systems
- controlled potential ignition sources
- assessed adequacy of dust control and dust explosion relief equipment
- determined maintenance requirements
- assessed automatic and manual monitoring techniques against enterprise needs
- established procedures for reporting non-conformances
- established emergency procedures
- identified training needs of employees, including induction training.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- technologies and techniques for controlling grain dust in grain milling, handling and storage facilities, including:
  - pneumatic dust collection
  - housekeeping
  - enclosing of equipment
  - use of liquid additives



- misting and fogging (where permitted)
- advantages and disadvantages of mechanical and pneumatic product conveying
- types of bin/silo and exhaust designs and implications for dust generation and control
- requirements for a grain dust explosion to occur, including typical sources in a grain enterprise:
  - oxygen
  - ignition
  - fuel
  - contained space
- effects of fungal and pest infestation on grain and flour temperature
- minimum explosive concentrations (MEC) for grain dust in the milling or storage operation that will vary according to the type of grain and particle size
- location of bin explosion relief panels
- explosion suppression systems
- confined space procedures and regulations.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - a workplace or an environment that accurately represents workplace conditions
- resources, equipment and materials:
  - personal protective equipment relevant to flour milling operations
  - grain storage facilities
  - sampling schedules and test procedures and equipment
  - cleaning procedures, materials and equipment
- specifications:
  - work procedures, including advice on safe work practices, food safety, quality and environmental requirements
  - documentation and recording requirements and procedures.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volumes, including Implementation Guides, are available at VETNet: -  
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# FBPOPR1001 Pack or unpack product manually

## Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 1.0

## Application

This unit of competency describes the skills and knowledge required to pack or unpack product manually.

This unit applies to individuals who work alongside a supervisor in most situations and exercise limited autonomy. Applications include packing into or from primary or secondary (inner or outer) packaging. Product feed may be mobile (conveyors) or stationary.

All work must be carried out to comply with workplace procedures, in accordance with State/Territory work health and safety, and food safety regulations, legislation and standards that apply to the workplace.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

## Pre-requisite Unit

Nil

## Unit Sector

Operational (OPR)

## Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare to pack or unpack product	1.1 Read or listen to work instructions from supervisor and ask for clarification where necessary 1.2 Identify work health and safety hazards and report to supervisor

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	1.3 Use appropriate personal protective equipment according to workplace procedures 1.4 Identify packaging requirements according to job specifications 1.5 Check packaging consumables against product type
2. Manually pack or unpack product	2.1 Pack or unpack product to meet customer and order specifications 2.2 Stack product according to required configurations 2.3 Identify unacceptable packaging consumables, product and packed products, and remove and correct, or tell supervisor 2.4 Maintain the work area in a clean and tidy state according to work health and food safety procedures

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Navigate the world of work	<ul style="list-style-type: none"> <li>• With guidance, identify main tasks, rights and responsibilities of own role</li> <li>• Follow instructions to complete a limited set of well-defined tasks</li> <li>• Meet a limited range of explicit workplace conventions and protocols</li> </ul>
Interact with others	<ul style="list-style-type: none"> <li>• Ask simple questions and listen carefully to clarify understanding or seek further information</li> <li>• Follow basic communication protocols and conventions</li> <li>• Recognise basic values, beliefs and cultural expectations of others</li> <li>• Follow scripts or use simple templates for routine communication tasks</li> </ul>
Get the work done	<ul style="list-style-type: none"> <li>• Follow simple, clear instructions</li> <li>• Keep track of work activities</li> <li>• Recognise and seek guidance to correct simple problems</li> <li>• Take responsibility for and reflect on low-impact decisions</li> <li>• Recognise and support the application of new ideas</li> </ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPOPR1001 Pack or unpack product manually	FDFOP1001A Pack or unpack product manually	Updated to meet Standards for Training Packages	Equivalent unit

## Links

Companion Volumes, including Implementation Guides, are available at VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# Assessment Requirements for FBOPR1001 Pack or unpack product manually

## Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 1.0

## Performance Evidence

An individual demonstrating competency in this unit must satisfy all of the elements and performance criteria of this unit.

There must be evidence that the individual has packed or unpacked product manually on at least one occasion, including:

- accessing workplace information on product and packaging requirements and procedures
- selecting, fitting and using personal protective equipment (PPE)
- confirming supply of packaging components and consumables appropriate for product type
- confirming that product is in correct condition, including confirming product and date codes, and product characteristics, weight and appearance
- pacing work to meet production requirements
- packing or unpacking product to meet specifications, including:
  - checking positioning of product within packaging
  - inspecting appearance and confirming that the packaged product meets customer and quality requirements
- correcting and/or reporting product and/or packaging that is out-of-specification within level of responsibility
- maintaining work area to meet housekeeping standards, including cleaning and sanitising equipment and surfaces
- operating basic packaging equipment related to manual packing function
- stacking or placing product according to requirements for stacking configurations
- following work health and safety and food safety procedures.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- purpose and function of packaging

- quality requirements of packaging components and consumables, the packing process, and the effect of outputs on both the further stages of packaging and storage, and on the final consumer
- packaging components and consumables used for each product type
- packaging, unpacking and/or wrapping and/or placement procedures for each product type
- consequences of incorrect procedures or configuration
- specifications for packing/packaging product and related equipment, components and consumables as required, including identifying any special packing/packaging requirements of particular customers
- storage and handling requirements of product
- contamination/food safety risks associated with manual packing and related control measures
- common causes of variation in both product presented for packing and packing components and consumables, and corrective action required
- work health and safety hazards and controls, including appropriate materials handling techniques related to the role
- services required, and action to take if services are not available.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - a workplace or an environment that accurately represents workplace conditions
- resources, equipment and materials:
  - personal protective clothing and equipment
  - relevant materials, packaging components and consumables, and related equipment
  - workplace forms and records as required
- specifications:
  - work procedures, including advice on safe work practices, food safety, quality and environmental requirements
  - production schedule and batch instructions
  - packaging specifications
  - documentation and recording requirements and procedures
  - cleaning procedures, materials and equipment as required
- relationships (internal and/or external):
  - person/s with whom to communicate.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volumes, including Implementation Guides, are available at VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## FBPOPR1002 Operate automated washing equipment

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 1.0

### Application

This unit of competency describes the skills and knowledge required to prepare, load and operate automated washing equipment.

This unit applies to individuals who work alongside a supervisor, in most situations, and exercise limited autonomy.

All work must be carried out to comply with workplace procedures, in accordance with State/Territory work health and safety apply to the workplace.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

### Pre-requisite Unit

Nil

### Unit Sector

Operational (OPR)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare washing equipment for operation	1.1 Read or listen to work instructions from supervisor and ask for clarification where necessary 1.2 Identify work health and safety hazards and tell supervisor 1.3 Use appropriate personal protective equipment according to workplace procedures



Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	1.4 Identify and load items to be washed according to job specifications 1.5 Confirm equipment and service are ready for use 1.6 Select wash cycle settings to meet safety and wash requirements
2. Operate and monitor the equipment	2.1 Conduct pre-start checks according to workplace procedures 2.2 Operate equipment and monitor to identify variation in operating conditions 2.3 Identify variation in equipment operation and report maintenance requirements 2.4 Shut equipment down safely according to workplace procedures 2.5 Unload washed items, and position in required location 2.6 Keep work area clean and tidy according to work health and food safety procedures 2.7 Clean equipment and complete records, as required by workplace procedures

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Navigate the world of work	<ul style="list-style-type: none"> <li>• With guidance, identify main tasks, rights and responsibilities of own role</li> <li>• Follow instructions to complete a limited set of well-defined tasks</li> <li>• Meet a limited range of explicit workplace conventions and protocols</li> </ul>
Interact with others	<ul style="list-style-type: none"> <li>• Ask simple questions and listen carefully to clarify understanding or seek further information</li> <li>• Follow basic communication protocols and conventions</li> <li>• Recognise basic values, beliefs and cultural expectations of others</li> <li>• Follow scripts or use simple templates for routine communication tasks</li> </ul>

Skill	Description
Get the work done	<ul style="list-style-type: none"><li>• Follow simple, clear instructions</li><li>• Keep track of work activities</li><li>• Recognise and seek guidance to correct simple problems</li><li>• Take responsibility for and reflect on low-impact decisions</li><li>• Recognise and support the application of new ideas</li></ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPOPR1002 Operate automated washing equipment	FDFOP1002A Operate automated washing equipment	Updated to meet Standards for Training Packages	Equivalent unit

## Links

Companion Volumes, including Implementation Guides, are available at VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# Assessment Requirements for FBPOPR1002 Operate automated washing equipment

## Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 1.0

## Performance Evidence

An individual demonstrating competency in this unit must satisfy all of the elements and performance criteria of this unit.

There must be evidence that the individual has operated automated washing equipment on at least one occasion, including:

- selecting, fitting and using appropriate personal protective equipment (PPE)
- checking that equipment, chemical supply and services are ready for operation
- identifying washing requirements and selecting appropriate equipment settings
- loading items to be washed
- conducting pre-start checks
- operating and monitoring equipment to identify variation in operating conditions
- identifying variation in equipment operation and reporting maintenance requirements
- removing and positioning items as required
- handling washed items to meet hygiene and sanitation requirements
- locating emergency stop functions on equipment
- shutting down equipment as required
- maintaining work area to meet housekeeping standards
- using basic process control screens and panels according to enterprise procedures
- completing workplace records according to enterprise procedures
- cleaning equipment as required
- following work health and safety procedures.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- purpose, functions and basic operation of equipment
- operating cycles and application to washing requirements
- required output and quality of cleaning/sanitising to be met by the washing process

- operating requirements and parameters, and corrective action required where operation is outside specified operating parameters
- typical equipment faults and related causes, including signs and symptoms of faulty equipment and early warning signs of potential problems
- common causes of faults or unacceptable performance of the container washing process and related troubleshooting procedures within level of responsibility
- work health and safety hazards and controls
- shutdown and cleaning procedures, including isolation, lock-out and tag-out procedures and responsibilities
- procedures and responsibility for reporting problems
- environmental issues and controls relevant to equipment operation, including waste collection and handling procedures related to the container washing process
- basic operating principles of process control, including the relationship between control panels and systems and the physical equipment
- recording procedures and responsibilities
- cleaning and sanitation requirements.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - a workplace or an environment that accurately represents workplace conditions
- resources, equipment and materials:
  - automated washing equipment and accessories
  - items to be washed
  - services as required
  - relevant work health and safety clothing and equipment
  - workplace forms and records
  - cleaning procedures, materials and equipment as required
- specifications:
  - work procedures, including advice on safe work practices
  - washing schedules and specifications
  - MSDS where appropriate
- relationships (internal and/or external):
  - person/s with whom to communicate.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volumes, including Implementation Guides, are available at VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## FBPOPR1003 Communicate workplace information

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 1.0

### Application

This unit of competency describes the skills and knowledge required to gather, convey and receive workplace information and to interact with others at work.

This unit applies to individuals working in a food production environment. It typically targets the production worker responsible for applying basic communication skills to support work practices while working alongside a supervisor in most situations and exercising limited autonomy.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

### Pre-requisite Unit

Nil

### Unit Sector

Operational (OPR)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Exchange verbal information	1.1 Identify information requirements according to workplace procedures 1.2 Ask questions to seek or clarify information 1.3 Apply effective listening skills to receive information 1.4 Use interactive skills to communicate effectively with others

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	1.5 Provide information in a timely and appropriate form
2. Locate and use workplace information	2.1 Locate sources of workplace information according to workplace procedures 2.2 Use information to carry out work responsibilities 2.3 Respond to instructions
3. Complete workplace documentation	3.1 Identify forms required for work operations 3.2 Complete and submit forms as required according to workplace procedures

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Navigate the world of work	<ul style="list-style-type: none"> <li>With guidance, identify main tasks, rights and responsibilities of own role</li> <li>Meet a limited range of explicit workplace conventions and protocols</li> </ul>
Interact with others	<ul style="list-style-type: none"> <li>Follow basic communication protocols and conventions</li> <li>Recognise and respect the different expectations of others</li> </ul>
Get the work done	<ul style="list-style-type: none"> <li>Follow instructions to complete a limited set of well-defined tasks</li> </ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPOPR1003 Communicate workplace information	FDFOP1010A Communicate workplace information	Updated to meet Standards for Training Packages	Equivalent unit

## Links

Companion Volumes, including Implementation Guides, are available at VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>



## Assessment Requirements for FBPOPR1003 Communicate workplace information

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 1.0

### Performance Evidence

An individual demonstrating competency in this unit must satisfy all of the elements and performance criteria of this unit.

There must be evidence that the individual has communicated workplace information covering each of the following points at least once:

- seeking information from people in the workplace to support work roles and responsibilities
- providing information to other people
- locating and using information to respond to a workplace instructions
- correctly completing a workplace form or other required document.

In completing the above points, the individual must demonstrate:

- the use of questions to obtain or clarify information requirements
- interactive communication processes
- communicating effectively.

### Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- communication channels and forums, including consultative arrangements established in the workplace
- common colloquial and technical terms relating to work function
- sources of information and advice relating to own job
- methods used to access information in a food production workplace
- interactive techniques, including active listening, questioning, seeking and responding to feedback, and interacting effectively with others
- recognition of different methods and styles of communication.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - a workplace or an environment that accurately represents workplace conditions
- resources, equipment and materials:
  - workplace information
  - workplace forms
- relationships (internal and/or external):
  - person/s with whom to communicate.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volumes, including Implementation Guides, are available at VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## FBPOPR1004 Prepare basic mixes

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 1.0

### Application

This unit of competency describes the skills and knowledge required to combine ingredients and additives in the correct quantities and to operate mixing and blending equipment to prepare basic mixes.

This unit applies to individuals who work alongside a supervisor in most situations and exercise limited autonomy. It has application in a variety of food processing operations, involving basic mixes made using pre-mix ingredients and/or where the knowledge of ingredient sequencing and ingredient characteristics is minimal.

All work must be carried out to comply with workplace procedures, in accordance with State/Territory work health and safety, and food safety regulations, legislation and standards that apply to the workplace.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

### Pre-requisite Unit

Nil

### Unit Sector

Operational (OPR)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare for mixing/blending	1.1 Read or listen to work instructions from supervisor and ask for clarification where necessary

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	1.2 Identify work health and safety hazards and tell supervisor 1.3 Use appropriate personal protective equipment as required 1.4 Check that materials are available to meet production requirements 1.5 Identify and measure required ingredients according to workplace procedures 1.6 Enter processing or operating parameters for mixing or blending to meet safety and production requirements 1.7 Check equipment performance and adjust according to operating requirements 1.8 Perform pre-start checks according to operator instructions
2. Operate and monitor the mixing/blending process	2.1 Add ingredients to the mixer in the required quantities to meet recipe specifications 2.2 Start the mixing and blending process according to work health and safety and operating procedures 2.3 Monitor equipment to identify variation in operating conditions and report maintenance requirements 2.4 Monitor the mixing process to confirm that specifications are met 2.5 Identify and report or rectify out-of-specification product and process outcomes 2.6 Maintain a clean and tidy work area according to workplace procedures
3. Shut down the mixing/blending process	3.1 Identify and apply the shut-down procedure safely according to operating procedures 3.2 Identify and report maintenance requirements

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Navigate the world of	<ul style="list-style-type: none"> <li>With guidance, identify main tasks, rights and responsibilities of</li> </ul>

Skill	Description
work	own role <ul style="list-style-type: none"> <li>Follow instructions to complete a limited set of well-defined tasks</li> <li>Meet a limited range of explicit workplace conventions and protocols</li> </ul>
Interact with others	<ul style="list-style-type: none"> <li>Ask simple questions and listen carefully to clarify understanding or seek further information</li> <li>Follow basic communication protocols and conventions</li> <li>Recognise basic values, beliefs and cultural expectations of others</li> <li>Follow scripts or use simple templates for routine communication tasks</li> </ul>
Get the work done	<ul style="list-style-type: none"> <li>Follow simple, clear instructions</li> <li>Keep track of work activities</li> <li>Recognise and seek guidance to correct simple problems</li> <li>Take responsibility for and reflect on low-impact decisions</li> <li>Recognise and support the application of new ideas</li> </ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPOPR1004 Prepare basic mixes	FDFOP1004A Prepare basic mixes	Updated to meet Standards for Training Packages	Equivalent unit

## Links

Companion Volumes, including Implementation Guides, are available at VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## Assessment Requirements for FBOPR1004 Prepare basic mixes

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 1.0

### Performance Evidence

An individual demonstrating competency in this unit must satisfy all of the elements and performance criteria of this unit.

There must be evidence that the individual has prepared basic mixes on at least one occasion, including:

- accessing workplace information to identify mixing and blending requirements
- selecting, fitting and using PPE
- confirming supply of necessary materials and services
- conducting pre-start checks
- adding/loading materials in correct quantities and sequence
- starting, monitoring and checking the blending/mixing process and control points to achieve required outcomes within specification
- monitoring supply and flow of ingredients to and from the blending/mixing process
- pacing mixing/blending to meet production requirements
- taking corrective action in response to out-of-specification results
- responding to and/or reporting equipment failure within level of responsibility
- locating emergency stop functions on equipment
- following procedures to shut down and clean equipment within level of responsibility
- completing workplace records as required
- maintaining work area to meet housekeeping standards
- using simple process control screens according to enterprise procedures
- following work health and safety procedures.

### Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- basic functions and operating principles of equipment used
- services required and action to take if services are not available
- the flow of the mixing process and the effect of mix preparation on downstream processes

- ingredient handling requirements and shelf-life/coding
- quality characteristics required of ingredients used
- required attributes of the mixed/blended output
- the effect of the mixing/blending parameters
- contamination/food safety risks associated with the process and related control measures, including product compatibility and cross-contamination risks, and associated cleaning requirements
- operating requirements and parameters, and corrective action required, where operation is outside specified operating parameters
- procedures and responsibility for reporting production and performance information
- work health and safety hazards and controls
- shutdown and cleaning procedures, including isolation, lock-out and tag-out procedures and responsibilities
- environmental issues and controls, including waste/rework collection and handling procedures related to the process
- cleaning and sanitation procedures for preparing basic mixes.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - a workplace or an environment that accurately represents workplace conditions
- resources, equipment and materials:
  - personal protective clothing and equipment
  - mixing/blending process equipment, services and related storage facilities as required
  - ingredients and additives required for the mixing/blending process
  - sampling schedules, and test procedures and equipment as required
  - cleaning procedures, materials and equipment as required
  - items of equipment to be operated and relevant materials, consumables and services
  - workplace records and forms as required
  - cleaning procedures, materials and equipment as required
- specifications:
  - work procedures, including advice on safe work practices, food safety, quality and environmental requirements
  - information on equipment capacity and operating parameters
  - production schedule/batch/recipe instructions
  - specifications, control points and processing parameters
- relationships (internal and/or external):
  - person/s with whom to communicate.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volumes, including Implementation Guides, are available at VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>



## FBPOPR1005 Operate basic equipment

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 1.0

### Application

This unit of competency describes the skills and knowledge required to operate basic equipment that requires limited application of equipment and process knowledge, and limited equipment adjustment.

This unit applies to individuals who work alongside a supervisor in most situations and exercise limited autonomy. The unit has generic application in a wide range of situations and should be customised for equipment not covered by any other specific unit.

All work must be carried out to comply with workplace procedures, in accordance with State/Territory work health and safety legislation that apply to the workplace.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

### Pre-requisite Unit

Nil

### Unit Sector

Operational (OPR)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Follow workplace procedures to operate equipment	1.1 Read or listen to work instructions from supervisor and ask for clarification where necessary 1.2 Identify work health and safety hazards and tell supervisor

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	1.3 Use appropriate personal protective equipment as required 1.4 Check equipment to confirm it is ready and safe to operate according to workplace procedures, including safety requirements 1.5 Conduct pre-start checks according to operator instructions 1.6 Start and operate equipment to achieve required outcome according to work health and safety and operating procedures
2. Monitor and complete equipment operation	2.1 Monitor equipment to identify variation in operating conditions 2.2 Identify and report variation in equipment operation and maintenance requirements 2.3 Shut down equipment safely according to operating procedures 2.4 Maintain a clean and tidy work area according to work health and safety procedures

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Navigate the world of work	<ul style="list-style-type: none"> <li>• With guidance, identify main tasks, rights and responsibilities of own role</li> <li>• Follow instructions to complete a limited set of well-defined tasks</li> <li>• Meet a limited range of explicit workplace conventions and protocols</li> </ul>
Interact with others	<ul style="list-style-type: none"> <li>• Ask simple questions and listen carefully to clarify understanding or seek further information</li> <li>• Follow basic communication protocols and conventions</li> <li>• Recognise basic values, beliefs and cultural expectations of others</li> <li>• Follow scripts or use simple templates for routine communication tasks</li> </ul>
Get the work done	<ul style="list-style-type: none"> <li>• Follow simple, clear instructions</li> <li>• Keep track of work activities</li> <li>• Recognise and seek guidance to correct simple problems</li> <li>• Take responsibility for and reflect on low-impact decisions</li> </ul>

Skill	Description
	<ul style="list-style-type: none"><li>Recognise and support the application of new ideas</li></ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPOPR1005 Operate basic equipment	FDFOP1005A Operate basic equipment	Updated to meet Standards for Training Packages	Equivalent unit

## Links

Companion Volumes, including Implementation Guides, are available at VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# Assessment Requirements for FBPOPR1005 Operate basic equipment

## Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 1.0

## Performance Evidence

An individual demonstrating competency in this unit must satisfy all of the elements and performance criteria of this unit.

There must be evidence that the individual has operated basic equipment on at least one occasion, including:

- accessing workplace information about equipment operating requirements and procedures
- selecting, fitting and using PPE
- conducting pre-start checks, including:
  - inspecting equipment condition to identify any signs of wear
  - selecting appropriate settings and/or related parameters
  - cancelling isolation or lock-outs as required
  - confirming that equipment is clean and that all safety guards are in place and operational
- starting and operating equipment according to procedure
- monitoring the output of equipment operation against requirements
- taking corrective action in response to out-of-specification results
- shutting down and cleaning equipment as required
- responding to and/or reporting equipment failure within level of responsibility
- locating emergency stop functions on equipment
- maintaining work area to meet housekeeping standards
- using basic process control screens and panels according to enterprise procedures
- completing workplace records according to enterprise procedures
- following work health and safety procedures.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- basic operating principles of equipment used, such as main equipment components, status and purpose of guards, emergency stop, isolation and lock-out controls, and equipment operating capacities and applications
- services required and action to take if services are not available
- quality requirements of materials/consumables used and the effect of variation on outputs
- operating requirements and parameters, and corrective action required where operation is outside specified operating parameters
- typical equipment faults and related causes, including signs and symptoms of faulty equipment and early warning signs of potential problems
- contamination/food safety risks associated with equipment operation and related control measures
- common causes of variation and corrective action required
- work health and safety hazards and controls
- shut-down and cleaning procedures, including isolation, lock-out and tag-out procedures and responsibilities
- environmental issues and controls relevant to equipment operation, including waste collection and handling procedures related to the process
- basic operating principles of process control, including the relationship between control panels and systems and the physical equipment
- recording procedures and responsibilities relevant to operating basic equipment.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - a workplace or an environment that accurately represents workplace conditions
- resources, equipment and materials:
  - personal protective clothing and equipment
  - item of equipment to be operated, and relevant materials, consumables and services
  - workplace forms and records
  - cleaning procedures, materials and equipment
- specifications:
  - work procedures, including advice on safe work practices, food safety, quality and environmental requirements
- relationships (internal and/or external):
  - person/s to communicate with.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volumes, including Implementation Guides, are available at VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## FBPOPR1006 Monitor process operation

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 1.0

### Application

This unit of competency describes the skills and knowledge required to monitor the operation of equipment used in a production process.

This unit applies to individuals who work in a food production environment alongside a supervisor in most situations and exercise limited autonomy.

All work must be carried out to comply with workplace procedures, in accordance with State/Territory work health and safety legislation that apply to the workplace.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

### Pre-requisite Unit

Nil

### Unit Sector

Operational (OPR)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Monitor equipment operation	1.1 Read or listen to work instructions from supervisor and ask for clarification where necessary 1.2 Identify work health and safety hazards and tell supervisor 1.3 Use appropriate personal protective equipment as required 1.4 Inspect and monitor equipment to confirm safety and operating

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	condition 1.5 Maintain materials and consumable levels as required 1.6 Maintain workplace records according to workplace procedures 1.7 Maintain a clean and tidy work area according to work health and safety procedures
2. Identify and respond to non-conformance	2.1 Monitor the process to confirm performance is maintained within specification 2.2 Identify and report out-of-specification product, process and equipment performance

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Navigate the world of work	<ul style="list-style-type: none"> <li>• With guidance, identify main tasks, rights and responsibilities of own role</li> <li>• Follow instructions to complete a limited set of well-defined tasks</li> <li>• Meet a limited range of explicit workplace conventions and protocols</li> </ul>
Interact with others	<ul style="list-style-type: none"> <li>• Ask simple questions and listen carefully to clarify understanding or seek further information</li> <li>• Follow basic communication protocols and conventions</li> <li>• Recognise basic values, beliefs and cultural expectations of others</li> <li>• Follow scripts or use simple templates for routine communication tasks</li> </ul>
Get the work done	<ul style="list-style-type: none"> <li>• Follow simple, clear instructions</li> <li>• Keep track of work activities</li> <li>• Recognise and seek guidance to correct simple problems</li> <li>• Take responsibility for and reflect on low-impact decisions</li> <li>• Recognise and support the application of new ideas</li> </ul>



## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPOPR1006 Monitor process operation	FDFOP1006A Monitor process operation	Updated to meet Standards for Training Packages	Equivalent unit

## Links

Companion Volumes, including Implementation Guides, are available at VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# Assessment Requirements for FBPOPR1006 Monitor process operation

## Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 1.0

## Performance Evidence

An individual demonstrating competency in this unit must satisfy all of the elements and performance criteria of this unit.

There must be evidence that the individual has monitored the operation of equipment used in a production process on at least one occasion, including:

- selecting, fitting and using appropriate personal protective equipment
- monitoring the process and equipment operation to maintain the process within the required parameters, such as conducting visual inspections and basic tests
- monitoring supply and flow of materials and/or consumables to and from the process, such as replenishing material inputs and removing processed materials or product
- identifying and taking action to correct out-of-specification results within level of responsibility and, where corrective action is outside level of responsibility, reporting to appropriate personnel
- maintaining work area to meet housekeeping standards
- recording workplace information according to enterprise procedures
- following work health and safety procedures.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- purpose of equipment used in production process
- required output and quality requirements to be met by the production process
- basic operating principles of equipment used, such as main equipment components, status and purpose of guards, and emergency stop, isolation and lock-out controls, and, where required, the operating features of the control panel and the relationship between control panel functions and the physical equipment
- common causes of faults or unacceptable performance, and action required within level of responsibility

- procedures and responsibility for reporting problems arising from monitoring process operations
- work health and safety hazards and controls for monitoring process operations
- recording system and responsibilities for monitoring process operation.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - a workplace or an environment that accurately represents workplace conditions
- resources, equipment and materials:
  - production/packaging equipment and related services
  - materials and consumables as required
  - relevant work health and safety clothing and equipment
  - workplace forms
- specifications:
  - work procedures, including advice on safe work practice
  - production schedules and specifications
  - MSDS where appropriate
  - housekeeping standards and procedures
- relationships (internal and/or external):
  - person/s with whom to communicate.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volumes, including Implementation Guides, are available at VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# FBPOPR1007 Participate effectively in a workplace environment

## Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 1.0

## Application

This unit of competency describes the skills and knowledge required to participate effectively in a workplace environment.

This unit applies to individuals in any work environment who work alongside a supervisor in most situations and exercise limited autonomy. This unit serves as an introduction to the responsibilities of the worker, and the products and processes of the company.

All work must be carried out to comply with workplace procedures, in accordance with State/Territory work health and safety legislation that apply to the workplace.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

## Pre-requisite Unit

Nil

## Unit Sector

Operational (OPR)

## Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Obtain information about the industry	1.1 Access sources of information about the industry 1.2 Collect information to assist effective and safe work performance within the industry 1.3 Obtain and update specific information on sector of work

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	1.4 Apply industry and work health and safety information to day-to-day work activities 1.5 Describe employment terms and conditions 1.6 Explain career pathways within the industry
2. Observe employment requirements	2.1 Identify industry developments in the workplace context that could be used to improve quality, productivity and conditions 2.2 Confirm that work practices comply with codes of practice and workplace expectations within level of responsibility 2.3 Identify contribution of own work role to organisational outputs 2.4 Ensure that dress and personal requirements comply with workplace standards 2.5 Observe punctuality in work attendance according to workplace procedures 2.6 Meet employer expectations through completion of workplace routines and specific instructions
3. Accept responsibility for quality of own work	3.1 Keep personal work space in a well-organised and safe condition 3.2 Adhere to the workplace code of conduct 3.3 Detect variations in the quality of service or products from required standards, and report as required
4. Plan and conduct own work	4.1 Follow instructions from supervisor and relevant people 4.2 Identify factors affecting work requirements and take appropriate action 4.3 Assess work load and prioritise within allocated timeframes 4.4 Communicate clearly, to the appropriate person, the need for assistance to improve performance
5. Promote workplace cooperation	5.1 Undertake responsibilities and duties in a positive manner to promote cooperation and good relationships 5.2 Conduct cooperation with others in a courteous manner, appropriate to culture, special needs and linguistic background, and position in the organisation 5.3 Recognise problems and conflict, and resolve through personal communication where possible, or refer to a supervisor, manager or employer for resolution

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
6. Contribute to a productive work environment	<p>6.1 Share information relevant to work with co-workers to ensure designated work goals are met</p> <p>6.2 Share knowledge and skills with co-workers through conversations and meetings</p> <p>6.3 Recognise and seek contributions of individuals of different gender and social and cultural backgrounds</p> <p>6.4 Ensure work is consistent with workplace standards relating to antidiscrimination and workplace harassment</p>
7. Undertake an activity to workplace requirements	<p>7.1 Discuss knowledge and skills required for task with supervisors and co-workers</p> <p>7.2 Check the availability of materials and equipment to ensure they are consistent with work schedules and the requirements of the task</p> <p>7.3 Create a daily schedule for completing workplace activities and allocated tasks, including priorities, allocated start times, estimation of completion times and materials, equipment and assistance required for completion</p>

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Navigate the world of work	<ul style="list-style-type: none"> <li>• With guidance, identify main tasks, rights and responsibilities of own role</li> <li>• Follow instructions to complete a limited set of well-defined tasks</li> <li>• Meet a limited range of explicit workplace conventions and protocols</li> </ul>
Interact with others	<ul style="list-style-type: none"> <li>• Ask simple questions and listen carefully to clarify understanding or seek further information</li> <li>• Follow basic communication protocols and conventions</li> <li>• Recognise basic values, beliefs and cultural expectations of others</li> <li>• Follow scripts or use simple templates for routine communication tasks</li> </ul>

Skill	Description
Get the work done	<ul style="list-style-type: none"><li>• Follow simple, clear instructions</li><li>• Keep track of work activities</li><li>• Recognise and seek guidance to correct simple problems</li><li>• Take responsibility for and reflect on low-impact decisions</li><li>• Recognise and support the application of new ideas</li></ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPOPR1007 Participate effectively in a workplace environment	FDFOP1007A Participate effectively in a workplace environment	Updated to meet Standards for Training Packages	Equivalent unit

## Links

Companion Volumes, including Implementation Guides, are available at VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# Assessment Requirements for FBPOPR1007 Participate effectively in a workplace environment

## Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 1.0

## Performance Evidence

An individual demonstrating competency in this unit must satisfy all of the elements and performance criteria of this unit.

There must be evidence that the individual has participated effectively in a workplace environment on at least one occasion, including:

- identifying and accessing information on conditions of employment and workplace policies and procedures
- applying work policies and procedures to work activity
- locating workplace amenities and facilities relevant to work responsibilities
- describing key products, functions and activities of the organisation
- identifying own work role within organisational activities and outputs
- identifying and locating materials/storage areas in the workplace, relevant to work role, such as locating tank farms and other bulk storage locations and identifying special storage conditions (e.g. hazardous goods and temperature controlled stores areas)
- identifying and locating production and packing processes/main work areas in the workplace
- sharing information and collaborating with other employees to complete work tasks
- planning own work tasks and completing within required timelines
- following work health and safety procedures.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- workplace structure and key personnel
- rights and responsibilities of employees as defined in employment conditions
- company policies and procedures relating to work responsibilities, including areas covered by legislation and related responsibilities
- appropriate personal conduct in a work area, including:



- minimum clothing and personal hygiene standards when entering and moving around a food processing area in order to protect both employees and product safety
- behaving appropriately towards others in the work area
- work health and safety hazards and controls
- industrial representation arrangements
- site security arrangements, including responsibility to report when coming on and off site
- site layout, including main facilities, such as canteens, parking areas, storage areas, processing and packing areas, and location of emergency exits and assembly areas
- the main products/product range produced in the workplace
- stages and processes used to manufacture and package products
- personal reporting roles and responsibilities.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - a workplace or an environment that accurately represents workplace conditions
- resources, equipment and materials:
  - site maps
  - workplace forms
- specifications:
  - advice on work roles and responsibilities
  - advice on workplace policies, codes of practice, procedures, structure and personnel
  - advice on conditions of employment and entitlements
- relationships (internal and/or external):
  - person/s with whom to communicate.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volumes, including Implementation Guides, are available at VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## FBPOPR1008 Take and record basic measurements

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 1.0

### Application

This unit of competency describes the skills and knowledge required to use basic measuring equipment and devices, and read and record the results.

This unit applies to individuals who work alongside a supervisor in most situations and exercise limited autonomy. Applications include simple tests that involve automated measuring devices.

All work must be carried out to comply with workplace procedures, in accordance with State/Territory work health and safety legislation that apply to the workplace.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

### Pre-requisite Unit

Nil

### Unit Sector

Operational (OP)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Identify measurement requirements	1.1 Identify the purpose of the measuring task 1.2 Identify measuring requirements, including frequency and accuracy range 1.3 Confirm that measuring equipment is available and fit for purpose

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
2. Take measurements	2.1 Carry out measuring tasks to requirements and according to work health and safety procedures 2.2 Check measurement results for accuracy 2.3 Identify non-standard or out-of-range results and report to supervisor 2.4 Record the results of measurements in the required format

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Navigate the world of work	<ul style="list-style-type: none"> <li>With guidance, identify main tasks, rights and responsibilities of own role</li> <li>Follow instructions to complete a limited set of well-defined tasks</li> <li>Meet a limited range of explicit workplace conventions and protocols</li> </ul>
Interact with others	<ul style="list-style-type: none"> <li>Ask simple questions and listen carefully to clarify understanding or seek further information</li> <li>Follow basic communication protocols and conventions</li> <li>Recognise basic values, beliefs and cultural expectations of others</li> <li>Follow scripts or use simple templates for routine communication tasks</li> </ul>
Get the work done	<ul style="list-style-type: none"> <li>Follow simple, clear instructions</li> <li>Keep track of work activities</li> <li>Recognise and seek guidance to correct simple problems</li> <li>Take responsibility for and reflect on low-impact decisions</li> <li>Recognise and support the application of new ideas</li> </ul>

## Unit Mapping Information

Code and title	Code and title	Comments	Equivalence status
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current version	previous version		
FBPOPR1008 Take and record basic measurements	FDFOP1008A Take and record basic measurements	Updated to meet Standards for Training Packages	Equivalent unit

## Links

Companion Volumes, including Implementation Guides, are available at VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## Assessment Requirements for FBOPR1008 Take and record basic measurements

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 1.0

### Performance Evidence

An individual demonstrating competency in this unit must satisfy all of the elements and performance criteria of this unit.

There must be evidence that the individual has used basic measuring equipment and devices and read and recorded the results on at least one occasion, including:

- accessing workplace information on measurement requirements and procedures relating to own work, including information about the types of measurements to be carried out, the equipment/devices to be used, frequency of measurement, and related recording requirements
- locating measuring equipment/device and confirming that it is suitable for use (this will vary depending on the nature of the equipment/device), such as taring scales, and confirming calibration of devices (e.g. pH meters)
- locating materials/items to be measured
- following procedures to conduct measurements
- determining and interpreting measurement results, including checking measurement accuracy, and, where results are out of the required range, reporting to appropriate personnel and following instructions on corrective action
- recording results as required in the appropriate format, such as completing log sheets
- following work health and safety procedures.

### Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- purpose of measuring as applied to work responsibilities, and related measuring equipment and units of measurement, including the required accuracy of the measurement and the capability/accuracy level of equipment used

- measuring equipment/device preparation requirements and purpose, including calibration requirements and responsibilities for maintaining accurate measuring equipment/devices (at this level, responsibility may involve confirming calibration by following defined check methods)
- work health and safety hazards associated with using the measuring equipment/device and related safe operating procedures
- typical/required range for measurement results
- common factors and conditions that could affect the measurement result
- procedures to follow where measurements are out of range, such as repeating the measurement one or more times
- consequences of measurements that are out of range
- responsibilities to report measurement information.
- 

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - a workplace or an environment that accurately represents workplace conditions
- resources, equipment and materials:
  - measuring equipment/devices
  - materials/items to be measured
  - recording and reporting system
- specifications:
  - work procedures and instructions relating to measuring requirements, including advice on safe work practices.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volumes, including Implementation Guides, are available at VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## FBPOPR1009 Follow work procedures to maintain quality

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 1.0

### Application

This unit of competency describes the skills and knowledge required to follow basic quality assurance practices related to monitoring quality where work involves routine manual processes or operation of simple automated equipment.

This unit applies to individuals who work alongside a supervisor in a food processing environment and exercise limited autonomy. It typically targets the production worker responsible for following quality procedures in own work operations.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

### Pre-requisite Unit

Nil

### Unit Sector

Operational (OPR)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Monitor quality of work outcome	1.1 Identify quality requirements according to workplace procedures 1.2 Inspect inputs to confirm capability to meet quality requirements 1.3 Follow work procedures according to workplace requirements
2. Identify and report unacceptable inputs and	2.1 Check work area, materials, processes and product routinely to

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
outputs	ensure compliance with quality requirements 2.2 Identify unacceptable quality and take corrective action within the level of responsibility to maintain quality standards 2.3 Report quality variation according to workplace procedures

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Navigate the world of work	<ul style="list-style-type: none"> <li>With guidance, identify main tasks, rights and responsibilities of own role</li> <li>Follow instructions to complete a limited set of well-defined tasks</li> <li>Meet a limited range of explicit workplace conventions and protocols</li> </ul>
Interact with others	<ul style="list-style-type: none"> <li>Ask simple questions and listen carefully to clarify understanding or seek further information</li> <li>Follow basic communication protocols and conventions</li> <li>Recognise basic values, beliefs and cultural expectations of others</li> <li>Follow scripts or use simple templates for routine communication tasks</li> </ul>
Get the work done	<ul style="list-style-type: none"> <li>Follow simple, clear instructions</li> <li>Keep track of work activities</li> <li>Recognise and seek guidance to correct simple problems</li> <li>Take responsibility for and reflect on low-impact decisions</li> <li>Recognise and support the application of new ideas</li> </ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPOPR1009	FDFOP1009A	Updated to meet	Equivalent unit



Code and title current version	Code and title previous version	Comments	Equivalence status
Follow work procedures to maintain quality	Follow work procedures to maintain quality	Standards for Training Packages	

## Links

Companion Volumes, including Implementation Guides, are available at VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## Assessment Requirements for FBPOPR1009 Follow work procedures to maintain quality

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 1.0

### Performance Evidence

An individual demonstrating competency in this unit must satisfy all of the elements and performance criteria of this unit.

There must be evidence that the individual has followed work procedures to maintain quality on at least one occasion, including:

- accessing and applying workplace information on quality requirements for own work
- identifying control points or inspection points for own work and related methods used to monitor quality
- carrying out relevant checks and inspections as required, such as checks and inspections on equipment, materials, product, packaging consumables and processing conditions relevant to own work
- identifying and responding to out-of-specification or unacceptable inputs and/or outputs, such as making adjustments within level of responsibility and/or reporting
- maintaining quality of own work
- recording quality data in required format according to enterprise procedures
- following work health and safety procedures.

### Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- quality policy, procedures and responsibilities
- quality personnel and their respective responsibilities, such as internal personnel and external auditors
- requirements of internal and external customers
- sources of advice on quality requirements for own work
- control points for own work, including the purpose of the control point, the risk if not controlled and the method of control where relevant
- monitoring, inspection and checking procedures relating to process control requirements
- evidence of out-of-specification or unacceptable performance

- procedures for responding to out-of-specification or unacceptable performance/outcomes
- responsibilities for reporting and recording quality information
- recording requirements and responsibilities for maintaining quality.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - a workplace or an environment that accurately represents workplace conditions
- resources, equipment and materials:
  - workplace procedures and forms
- relationships (internal and/or external):
  - person/s with whom to communicate.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volumes, including Implementation Guides, are available at VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## FBPOPR1010 Carry out manual handling tasks

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

### Application

This unit of competency describes the skills and knowledge required to identify manual handling requirements of a work function, use manual handling aids to lift or move items and identify and assess manual handling risks.

This unit applies to individuals who work alongside a supervisor in most situations and exercise limited autonomy.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

### Pre-requisite Unit

Nil

### Unit Sector

Operational (OPR)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Participate in processes to identify and assess manual handling	1.1 Identify the manual handling components of a work function 1.2 Identify manual handling risks to self and others within level of responsibility and tell supervisor
2. Contribute to manual handling risk minimisation	2.1 Check that manual handling equipment is available and ready for use 2.2 Ensure that personal protective equipment, including clothing and

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	footwear, is fit or use,
3. Plan and conduct manual handling	3.1 Identify sources of risks 3.2 Modify workplace layout and environment within area of control to minimise manual handling risk 3.3 Modify work tasks within area of control to minimise the risk of injury 3.4 Use manual handling aids according to workplace procedures 3.5 Use movement and postures to minimise the risk of injury within the limits of the work environment and the demands of the task

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Interact with others	<ul style="list-style-type: none"> <li>Ask simple questions and listen carefully to clarify understanding or seek further information</li> </ul>
Get the work done	<ul style="list-style-type: none"> <li>Follow simple, clear instructions</li> <li>Recognise and seek guidance to correct simple problems</li> </ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPOPR1010 Carry out manual handling tasks	FDFOP1003A Carry out manual handling tasks	Updated to meet Standards for Training Packages	Equivalent unit

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# Assessment Requirements for FBPOPR1010 Carry out manual handling tasks

## Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

## Performance Evidence

An individual demonstrating competency must satisfy all of the elements and performance criteria in this unit.

There must be evidence that the individual has safely and effectively carried out a minimum of three, different manual handling tasks, including:

- identifying the risks associated with each manual handling task (to self and others)
- eliminating risks, including through movement, posture and effectively using equipment provided
- modifying work to eliminate or minimise risk
- applying safe work procedures.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- different types of manual handling activities, including lifting, reaching, pushing, pulling, holding, restraining, throwing and carrying
- types of injuries that can result from manual handling
- aspects of manual handling that may be risks (hazard identification), including:
  - repetitive or sustained application of force
  - repetitive or sustained awkward posture
  - repetitive or sustained movement
  - application of high force
- manual handling of unstable or unbalanced loads, such as liquids or animals
- workplace procedures and responsibilities for identifying and reporting manual handling hazards
- factors to be considered when assessing manual handling risks relevant to work role (refer to workplace risk assessment sheets and code of practice advice where available), including:

- postures
- movements
- force required
- duration and frequency of manual handling activity
- environmental conditions, such as hot and cold work environments
- procedures and responsibilities for conducting risk assessments of manual handling tasks
- typical options for eliminating or controlling manual handling risks associated with work functions, including principles of hierarchy of control and the advantages and disadvantages of different options
- types of equipment and/or techniques used to eliminate or reduce manual handling risks in the workplace, including when and how to use each type of technique/equipment relevant to manual handling tasks in work role
- level of authority to address health and safety issues related to manual handling and related workplace arrangements for managing safety issues
- sources of advice on manual handling relevant to work function
- equipment available to assist manual handling, related inspections required to identify faulty equipment and related reporting procedures
- personal protective equipment checks including:
  - check for correct fit
  - appropriate for task
  - undamaged
- movement and postures that increase the risk of injury, and movements and postures to minimise the force in the body as applied to specific tasks in the workplace.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - skills must be demonstrated in a workplace setting or an environment that accurately represents a real workplace
- resources, equipment and materials:
  - work procedures, including advice on manual handling requirements and safe work practices.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>



# FBPOPR2001 Work effectively in the food processing industry

## Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 1.0

## Application

This unit of competency describes the skills and knowledge required to work effectively in the food processing industry by applying an understanding of the structure of the industry, workplace policies and procedures, and conditions relevant to the level of responsibility.

This unit applies to individuals who perform a defined range of routine and predictable activities under general supervision and exercise limited autonomy and accountability in any sector of the food processing industry.

All work must be carried out to comply with workplace procedures, in accordance with State/Territory work health and safety that apply to the workplace.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

## Pre-requisite Unit

Nil

## Unit Sector

Operational (OPR)

## Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Identify the food processing industry	1.1 Identify sectors within the food processing industry 1.2 Identify key sector representatives and their roles 1.3 Understand workplace procedures common to employment in the

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	sector 1.4 Identify types of employment and key responsibilities in the food processing industry
2. Identify key production processes and supply chains	2.1 Recognise raw materials used in the workplace and their source 2.2 Recognise the range of products produced in the workplace 2.3 Identify workplace production processes for converting materials into products 2.4 Identify common products and supply chains in the food processing industry
3. Carry out work responsibilities according to policies and procedures	3.1 Operate according to basic conditions of employment 3.2 Apply workplace policies and procedures when carrying out work role 3.3 Identify rights, responsibilities and legal obligations relevant to own role 3.4 Identify key personnel and their roles in the workplace 3.5 Apply employability skills required for working effectively 3.6 Recognise the consequences of not following workplace environmental and safety policies and practices
4. Take responsibility for own skill development	4.1 Identify the skills required for work role and assess learning needs 4.2 Participate in opportunities for skill development 4.3 Take responsibility for own work tasks and role 4.4 Monitor own work against workplace standards and identify areas for improvement and take action 4.5 Use basic problem-solving strategies to address problems, inconsistencies or concerns when fulfilling work role

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Navigate the world of work	<ul style="list-style-type: none"><li>• Meet a limited range of explicit workplace conventions and protocols</li></ul>
Interact with others	<ul style="list-style-type: none"><li>• Ask simple questions and listen carefully to clarify understanding or seek further information</li><li>• Follow basic communication protocols and conventions to contribute to basic workgroup processes</li><li>• Recognise basic values, beliefs and cultural expectations of others</li><li>• Use simple templates for routine tasks</li></ul>
Get the work done	<ul style="list-style-type: none"><li>• Recognise simple problems and seek guidance to correct</li><li>• Take responsibility for and reflect on low-impact decisions</li><li>• Recognise and support the application of new ideas</li></ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPOPR2001 Work effectively in the food processing industry	FDFOP2001A Work effectively in the food processing industry	Updated to meet Standards for Training Packages	Equivalent unit

## Links

Companion Volumes, including Implementation Guides, are available at VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# Assessment Requirements for FBPOPR2001 Work effectively in the food processing industry

## Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 1.0

## Performance Evidence

An individual demonstrating competency in this unit must satisfy all of the elements and performance criteria of this unit.

There must be evidence that the individual has worked effectively in the food processing industry on at least one occasion, including:

- identifying information on conditions of employment and workplace policies and procedures
- identifying and locating materials/storage areas in the workplace relevant to work role, and identifying special storage conditions
- identifying and locating production and packing processes/main work areas in the workplace
- displaying appropriate behaviour when interacting with others and moving around the workplace
- explaining employee responsibilities
- explaining the dispute resolution procedures in the workplace
- explaining the flow of product from receipt to sale in own workplace
- explaining the nature and role of work instructions and standard operating procedures (SOPs)
- explaining the principles of equal employment opportunity (EEO) and policies to prevent sexual harassment and other forms of discrimination
- following relevant workplace policies
- identifying and explaining the relevance of work health and safety and regulatory requirements for food industry employees
- identifying workplace employment conditions
- identifying relevant workplace requirements, policies and procedures and explaining their implications for trainees
- listing the markets where products are distributed
- naming the products produced in own workplace
- outlining enterprise ethical standards and requirements for interacting with other employees and staff

- relating to others in an effective and non-discriminatory way, showing mutual respect
- applying environmental practices.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- workplace structure and key personnel
- rights and responsibilities of employees as defined in employment conditions
- workplace policies and procedures relating to work responsibilities, including areas covered by legislation and related responsibilities
- appropriate personal conduct in a work area, including minimum clothing and personal hygiene standards when entering and moving around a food processing area in order to protect both employees and product safety, and behaving appropriately towards others in the work area
- industrial representation arrangements
- site security arrangements, including responsibility to report when coming on-site and off-site
- site layout, including main facilities, including canteens, parking areas, storage areas, processing and packing areas and location of emergency exits and assembly areas
- the main products/product range produced in the workplace
- work health and safety hazards and controls in the workplace
- stages and processes used to manufacture and package products
- personal reporting roles and responsibilities.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - a workplace or an environment that accurately represents workplace conditions
- resources, equipment and materials:
  - site maps
  - workplace access
- specifications:
  - workplace policies, codes of practice, procedures, structure and personnel
  - work roles and responsibilities, training and career information
  - conditions of employment and entitlements.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volumes, including Implementation Guides, are available at VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## FBPOPR2002 Inspect and sort materials and product

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 1.0

### Application

This unit of competency describes the skills and knowledge required to inspect and sort product and incoming materials ready for processing.

This unit has application in a production environment within the food processing industry. Inspection at this level is typically limited to visual inspection.

This unit applies to individuals who work under general supervision and exercise limited autonomy with some accountability for their own work. This includes identifying and providing solutions to a limited range of predictable problems.

All work must be carried out to comply with workplace procedures, in accordance with State/Territory work health and safety legislation that apply to the workplace.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

### Pre-requisite Unit

Nil

### Unit Sector

Operational (OPR)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Inspect materials and product to confirm	1.1 Read or listen to work instructions from supervisor and clarify where required

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
fitness for use	1.2 Identify work health and safety hazards and report to supervisor 1.3 Wear appropriate personal protective equipment and ensure correct fit 1.4 Confirm the type and quality requirements of materials and product according to workplace procedures 1.5 Convey or transfer materials and product to required locations
2. Sort materials and product	2.1 Inspect materials and product to confirm quality requirements are met 2.2 Sort product and incoming materials to meet production requirements 2.3 Identify and report unacceptable quality according to workplace procedures 2.4 Maintain a clean and tidy workplace according to workplace and safety procedures

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"> <li>Interpret workplace and standard operating procedures relevant to job role</li> <li>Interpret material and product instructions and requirements</li> </ul>
Navigate the world of work	<ul style="list-style-type: none"> <li>Follow workplace procedures, including work health and safety requirements, relating to own role and work area</li> <li>Demonstrate a duty of care to self and others</li> </ul>
Interact with others	<ul style="list-style-type: none"> <li>Communicate effectively and cooperate with supervisor and co-workers, including reporting problems</li> <li>Use active listening and questioning to clarify and confirm supervisor instructions</li> </ul>
Get the work done	<ul style="list-style-type: none"> <li>Follow instructions and make routine decisions related to materials and product inspection and sorting</li> <li>Maintain a clean and hazard-free work area</li> </ul>



Skill	Description
	<ul style="list-style-type: none"><li>• Maintain hygiene standards and wear required personal protective equipment</li><li>• Identify out-of-specification or non-conforming product and follow procedures to separate unacceptable product</li></ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPOPR2002 Inspect and sort materials and product	FDFOP2002A Inspect and sort materials and product	Updated to meet Standards for Training Packages	Equivalent unit

## Links

Companion Volumes, including Implementation Guides, are available at VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# Assessment Requirements for FBPOPR2002 Inspect and sort materials and product

## Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 1.0

## Performance Evidence

An individual demonstrating competency in this unit must satisfy all of the elements and performance criteria of this unit.

There must be evidence that the individual has inspected and sorted product and incoming materials, on at least one occasion, including:

- accessing workplace information on materials specification/quality requirements
- selecting, fitting and using personal protective equipment
- inspecting quality of materials to confirm compliance with quality specifications, including:
  - product type and quantity
  - product condition, such as identifying any bruising, discolouration or other damage, confirming product is clean, and checking size and weight
- identifying out-of-specification or non-conforming product and following procedures to separate unacceptable product
- responding to and/or reporting equipment failure within level of responsibility
- maintaining work area to meet housekeeping standards
- completing workplace records as required according to workplace procedures
- procedures for operating materials transfer equipment as required according to workplace procedures
- following work health and safety procedures.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- purpose and standards to be met by the inspection and sorting process, including criteria and specifications as they apply to inspection and sorting requirements

- the relationship between visual inspection and sorting and other inspection procedures, such as those that may be conducted by a laboratory or at subsequent processing stages
- typical causes of unacceptable or out-of-specification product, including causes of product damage that can occur prior to arrival at the plant and as part of the handling process
- the stages that occur in the inspection and sorting process and their effect on product, such as in-line cleaning or conditioning and product or materials transfer stages
- typical equipment faults and related causes, including signs and symptoms of faulty equipment and early warning signs of potential problems
- contamination/food safety risks associated with the sorting process and related control measures
- work health and safety hazards and controls, including the limitations of protective clothing and equipment relevant to the work process
- procedures and responsibility for reporting production and performance information
- environmental issues and controls relevant to equipment operation, including waste collection and handling procedures related to the process
- basic operating principles of equipment used, where relevant, including main equipment components, status and purpose of guards, emergency stop, isolation and lock-out controls, equipment operating capacities and applications
- services required and action to take if services are not available
- recording procedures and responsibilities for inspecting and sorting materials and product.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - a workplace or an environment that accurately represents workplace conditions
- resources, equipment and materials:
  - product and incoming materials
  - appropriate personal protective equipment and other equipment
  - reporting and monitoring systems
- specifications:
  - workplace information on materials specification/quality requirements
  - work instructions and procedures
  - basic operating principles of equipment.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volumes, including Implementation Guides, are available at VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>



## FBPOPR2003 Prepare and monitor beer yeast propagation processes

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 1.0

### Application

This unit of competency describes the skills and knowledge required to prepare and monitor beer yeast propagation processes.

This unit applies to individuals who work under general supervision and exercise limited autonomy in a food processing environment.

All work must be carried out to comply with workplace procedures, in accordance with State/Territory work health and safety, and food safety regulations, legislation and standards that apply to the workplace.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

### Pre-requisite Unit

Nil

### Unit Sector

Operational (OPR)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare for propagation	1.1 Identify and confirm propagation requirements 1.2 Wear appropriate personal protective clothing and ensure correct fit

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	1.3 Prepare yeast cultures for use according to specifications 1.4 Confirm product and materials are available to meet propagation requirements 1.5 Prepare product to meet specified propagation requirements 1.6 Confirm propagation services are available and ready for operation
2. Prepare equipment for culture preparation	2.1 Check cleaning and sterilising equipment to confirm readiness for use 2.2 Select, clean and sterilise propagation equipment according to work health and safety and food safety procedures 2.3 Select, clean and sterilise transfer equipment according to work health and safety and food safety procedures 2.4 Start up the beer yeast propagation process according to work health and safety and operating requirements
3. Maintain and monitor the propagation process	3.1 Conduct transfer operations to meet propagation requirements 3.2 Conduct the culture propagation process according to workplace procedures 3.3 Make scale-up additions to ensure optimum performance 3.4 Monitor control points to confirm performance is maintained within specification 3.5 Monitor equipment to confirm operating condition 3.6 Identify, rectify and/or report out-of-specification product, process and equipment performance according to workplace procedures
4. Complete propagation activities	4.1 Complete the propagation process according to workplace procedures 4.2 Dismantle equipment and prepare for cleaning according to workplace requirements 4.3 Collect, treat and dispose of or recycle waste generated by both the process and cleaning procedures 4.4 Conduct work in accordance with workplace environmental guidelines 4.5 Record workplace information in the appropriate format according to workplace requirements

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"> <li>Interpret workplace and standard operating procedures relevant to job role</li> <li>Interpret production requirements</li> </ul>
Writing	<ul style="list-style-type: none"> <li>Record operating, routine maintenance and shutdown information on paper-based and electronic media</li> </ul>
Numeracy	<ul style="list-style-type: none"> <li>Monitor and interpret production and process control indicators and data</li> <li>Monitor supply and flow of materials to and from the process</li> </ul>
Navigate the world of work	<ul style="list-style-type: none"> <li>Apply workplace procedures to own role and responsibilities</li> <li>Identify skills, knowledge and experience required for performing own role in the workplace</li> <li>Ask questions to clarify understanding or seek further information</li> </ul>
Interact with others	<ul style="list-style-type: none"> <li>Communicate and report operational and safety information to relevant personnel</li> <li>Use modes of communication suitable to purpose to confirm understanding when conducting operational start-up and shutdown procedures</li> </ul>
Get the work done	<ul style="list-style-type: none"> <li>Access and interpret process control panels and system</li> <li>Maintain a clean and hazard-free work area</li> <li>Identify out-of-specification standards and maintain quality specifications</li> <li>Confirm equipment status and condition</li> <li>Interpret process and equipment information to monitor process and respond to abnormal performance and variations</li> </ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPOPR2003 Prepare and monitor beer yeast propagation processes	FDFOP2074A Prepare and monitor beer yeast propagation processes	Updated to meet Standards for Training Packages	Equivalent unit

## Links

Companion Volumes, including Implementation Guides, are available at VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>



## Assessment Requirements for FBPOPR2003 Prepare and monitor beer yeast propagation processes

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 1.0

### Performance Evidence

An individual demonstrating competency in this unit must satisfy all of the elements and performance criteria of this unit.

There must be evidence that the individual has prepared and monitored beer yeast propagation processes on at least one occasion, including:

- accessing workplace information to identify culture propagation requirements
- selecting, fitting and using personal protective clothing and/or equipment
- confirming supply of necessary product, materials and services
- liaising with other work areas
- preparing product and materials, including:
  - culture yeast slopes
  - oxygenated wort
  - yeast nutrients
  - oxygen supply and sterilisation
  - wort heating
  - wort sterilisation
- confirming equipment status and condition, including checking:
  - cleaning and/or sterilisation requirements have been met
  - position and alignment of valves
  - integrity of door seals and small vessel tubing and condition of gas (oxy) filters
- starting up the process
- monitoring the process and equipment operation to identify out-of-specification results or non-compliance, including sampling and checking:
  - temperature (wort)
  - wort gravity
  - wort oxygenation levels
  - yeast cell counts
  - yeast viability

- monitoring supply and flow of product and materials to and from the process
- taking corrective action in response to out-of-specification results or non-compliance
- reporting and/or recording corrective action
- sorting, collecting, treating, recycling or disposing of waste
- shutting down equipment in response to an emergency situation
- shutting down equipment in response to routine shutdown requirements
- recording workplace information
- maintaining work area to meet housekeeping standards
- preparing equipment for cleaning, including draining and/or dismantling equipment, and removing waste either manually or by rinsing, in preparation for sanitation
- identifying, rectifying and/or reporting environmental non-compliance
- following relevant work health and safety procedures.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- purpose and principles of propagating yeast cultures
- relationship of propagation to alcoholic fermentation
- stages and changes that occur during culture propagation
- effect of process stages on end product
- quality characteristics and uses of yeast cultures
- product and materials preparation requirements, and the effect of variation on the process
- main methods used in propagating yeast for beer production
- the fermentation reaction for yeast cultures
- techniques that may be used to manipulate the propagation process and end product characteristics, including:
  - temperature
  - yeast strain
  - wort stream
  - wort gravity
  - additions (nutrients)
  - oxygen
- process specifications, procedures and operating parameters relevant to beer yeast propagation
- equipment and instrumentation components, purpose and operation required for beer yeast propagation processes
- basic operating principles of process control systems
- services used in the beer yeast propagation processes
- significance and method of monitoring control points within the process
- common causes of variation with equipment and corrective action required
- work health and safety hazards and controls for beer yeast propagation processes

- lock-out and tag-out procedures required for beer yeast propagation processes
- procedures and responsibility for reporting problems relating to the beer yeast propagation processes
- environmental issues and controls relevant to yeast propagation processes
- shutdown and cleaning requirements associated with changeovers, and types of shutdowns
- waste handling requirements and procedures for beer yeast propagation processes
- recording requirements and procedures for beer yeast propagation processes.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - a workplace or an environment that accurately represents workplace conditions
- resources, equipment and materials:
  - personal protective clothing and equipment
  - equipment, services and corresponding information
  - products and materials
  - cleaning procedures, materials and equipment
- specifications:
  - work procedures, including advice on company practices, safe work practices, food safety, quality and environmental requirements
  - instructions, information, specifications and schedules
  - documentation and recording requirements and procedures

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volumes, including Implementation Guides, are available at VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## FBPOPR2004 Operate a beer packaging process

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 1.0

### Application

This unit of competency describes the skills and knowledge required to set up, operate, adjust and shut down a beer packaging process.

This unit applies to individuals who work under general supervision and exercise limited autonomy in a food processing environment. It typically applies to the production worker responsible for applying basic operating principles to the operation and monitoring of a beer packaging process and associated equipment.

All work must be carried out to comply with workplace procedures, in accordance with State/Territory work health and safety, and food safety regulations, legislation and standards that apply to the workplace.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

### Pre-requisite Unit

Nil

### Unit Sector

Operational (OPR)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare the packaging process for operation	1.1 Check packaging requirements according to workplace procedures and food safety requirements 1.2 Confirm availability of required materials according to job

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	<p>specifications</p> <p>1.3 Confirm availability of services according to job specifications</p> <p>1.4 Wear appropriate personal protective clothing and ensure correct fit</p> <p>1.5 Conduct pre-start checks of packaging equipment, including checking that hygiene and sanitation standards are met and all safety guards are in place</p> <p>1.6 Set the packaging process to meet production requirements</p>
2. Operate and monitor the packaging process	<p>2.1 Start up the packaging process according to workplace procedures and safety requirements</p> <p>2.2 Monitor equipment and control points to confirm performance is maintained within specification</p> <p>2.3 Confirm packages meet specifications</p> <p>2.4 Maintain stock flow to and from packer process within production requirements</p> <p>2.5 Identify, rectify and/or report out-of-specification product, process and equipment performance</p> <p>2.6 Complete size and product changeovers in accordance with batch instructions</p>
3. Shut down packaging process	<p>3.1 Shut down the system safely according to workplace procedures</p> <p>3.2 Clean and maintain equipment to meet the cleaning schedule and procedural requirements</p> <p>3.3 Collect, treat and dispose of or recycle waste generated by both the process and cleaning procedures</p> <p>3.4 Record workplace information in the appropriate format according to workplace requirements</p>

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"> <li>Interpret workplace and standard operating procedures relevant to job role</li> <li>Interpret production requirements</li> </ul>
Writing	<ul style="list-style-type: none"> <li>Record operating, routine maintenance and shutdown information on paper-based and electronic media</li> </ul>
Numeracy	<ul style="list-style-type: none"> <li>Monitor and interpret production and process control indicators and data</li> <li>Monitor supply and flow of materials to and from the process</li> </ul>
Navigate the world of work	<ul style="list-style-type: none"> <li>Apply workplace procedures to own role and responsibilities</li> <li>Identify skills, knowledge and experience required for performing own role in the workplace</li> <li>Ask questions to clarify understanding or seek further information</li> </ul>
Interact with others	<ul style="list-style-type: none"> <li>Communicate and report operational and safety information to relevant personnel</li> <li>Use modes of communication suitable to purpose to confirm understanding when conducting operational start-up and shutdown procedures</li> </ul>
Get the work done	<ul style="list-style-type: none"> <li>Access and interpret process control panels and system</li> <li>Maintain a clean and hazard-free work area</li> <li>Identify out-of-specification standards and maintain quality specifications</li> <li>Confirm equipment status and condition</li> <li>Interpret process and equipment information to monitor process and respond to abnormal performance and variations</li> </ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPOPR2004 Operate a beer packaging process	FDFOP2073A Operate a beer packaging process	Updated to meet Standards for Training Packages	Equivalent unit

## Links

Companion Volumes, including Implementation Guides, are available at VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## Assessment Requirements for FBPOPR2004 Operate a beer packaging process

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 1.0

### Performance Evidence

An individual demonstrating competency in this unit must satisfy all of the elements and performance criteria of this unit.

There must be evidence that the individual has set up, operated, adjusted and shut down a beer packaging process on at least one occasion, including:

- accessing workplace information to identify production requirements for the packaging process
- selecting, fitting and using personal protective clothing and equipment
- interpreting the production schedule
- confirming supply of necessary materials and services
- confirming packaging equipment status and condition
- conducting pre-start checks, including:
  - inspecting equipment condition to identify any signs of wear
  - selecting appropriate settings and/or related parameters
  - cancelling isolation or lock-outs
  - confirming that equipment is clean and correctly configured for processing requirements
  - positioning sensors and controls correctly
  - ensuring any scheduled maintenance has been carried out
  - confirming that all safety guards are in place and operational
- setting up and starting up the process, including the use of process control systems, and adjusting the packagers to product specifications
- monitoring the packaging process and equipment operation to identify out-of-specification results or non-compliance, including:
  - glue seals on cartons
  - incorrect shape
  - materials faults
  - incomplete shrink wrapping



- equipment faults
- services faults
- monitoring supply and flow of materials to and from the packer
- taking corrective action in response to out-of-specification results or non-compliance
- safely accessing, isolating and clearing jams in packaging equipment
- reporting and/or recording corrective action
- replenishing the packing process with raw materials, ingredients and packaging consumables
- verifying that output meets specifications
- implementing size/product changeovers
- sorting, collecting, treating, recycling or disposing of waste
- shutting down packaging equipment in response to emergency situation
- shutting down packaging equipment in response to routine shutdown requirements
- preparing packaging equipment for cleaning
- maintaining work area to meet housekeeping standards
- recording workplace information
- cleaning and sanitising equipment according to workplace procedures
- following relevant work health and safety procedures.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- purpose and basic principles of the packaging process
- relationship between the packaging process, fillers, labellers, other packaging equipment and palletisers, including stages that occur during filling and packaging
- requirements of the packaging process and types of packers
- microbiological considerations in filling and packaging beer
- effect of packaging on the end product
- process specifications, procedures and operating parameters of the beer packaging process
- significance and methods of monitoring control points within the packaging process
- beer packaging equipment and instrumentation components, purpose and operation
- services used in the packaging process
- common causes of variation in equipment and corrective action required
- work health and safety hazards and controls relevant to the beer packaging process
- procedures and responsibility for reporting problems
- shutdown and cleaning requirements associated with changeovers, and types of shutdowns
- waste handling requirements and procedures relevant to the beer packaging process
- recording requirements and procedures, including down time
- cleaning and sanitation procedures for the beer packaging process.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - a workplace or an environment that accurately represents workplace conditions
- resources, equipment and materials:
  - personal protective clothing and equipment
  - beer packaging equipment
  - services
  - stock required for the beer packaging process
  - stock flow system
  - related work areas and communication system
  - relevant work health and safety clothing and equipment
- specifications:
  - work procedures, including advice on safe work practices, food safety and environmental requirements
  - production schedule and batch instructions
  - material safety data sheets, where appropriate
  - specifications, control points and filling parameters
  - routine preventative maintenance schedule
  - cleaning schedule
  - sampling and testing schedules
  - documentation and recording requirements and procedures.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volumes, including Implementation Guides, are available at VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## FBPOPR2005 Operate a beer filling process

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 1.0

### Application

This unit of competency describes the skills and knowledge required to set up, operate, adjust and shut down a beer filling process.

This unit applies to individuals who work under general supervision and exercise limited autonomy in a food processing environment. It typically applies to the production worker responsible for applying basic operating principles to the operation and monitoring of a beer filling process and associated equipment.

All work must be carried out to comply with workplace procedures, in accordance with State/Territory work health and safety, and food safety regulations, legislation and standards that apply to the workplace.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

### Pre-requisite Unit

Nil

### Unit Sector

Operational (OPR)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare the filler process for operation	1.1 Identify and check filling requirements 1.2 Confirm availability of required materials and services to meet

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	filling requirements 1.3 Wear appropriate personal protective clothing and ensure correct fit 1.4 Conduct pre-start checks of equipment, including checking that hygiene and sanitation standards are met and all safety guards are in place 1.5 Set the beer filling process to meet production requirements
2. Operate and monitor the beverage filling process	2.1 Start up the beer filler process according to work health and safety and operating requirements 2.2 Monitor equipment and control points to confirm performance is maintained within specification 2.3 Check beer containers (cans, kegs and bottles) against production order and container specifications 2.4 Maintain stock flow to and from filler process within production requirements 2.5 Identify, rectify and/or report out-of-specification product, process and equipment performance 2.6 Complete size and product changeovers in accordance with batch instructions
3. Shut down filler	3.1 Shut down filler process safely according to operating procedures 3.2 Clean and maintain equipment to meet cleaning schedules and procedural requirements 3.3 Collect, treat and dispose of or recycle waste generated by both the process and cleaning procedures 3.4 Record workplace information in the appropriate format according to workplace requirements

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
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Skill	Description
Reading	<ul style="list-style-type: none"> <li>Interpret workplace and standard operating procedures relevant to job role</li> <li>Interpret production requirements</li> </ul>
Writing	<ul style="list-style-type: none"> <li>Record operating, routine maintenance and shutdown information on paper-based and electronic media</li> </ul>
Numeracy	<ul style="list-style-type: none"> <li>Monitor and interpret production and process control indicators and data</li> <li>Monitor supply and flow of materials to and from the process</li> </ul>
Navigate the world of work	<ul style="list-style-type: none"> <li>Apply workplace procedures to own role and responsibilities</li> <li>Identify skills, knowledge and experience required for performing own role in the workplace</li> <li>Ask questions to clarify understanding or seek further information</li> </ul>
Interact with others	<ul style="list-style-type: none"> <li>Communicate and report operational and safety information to relevant personnel</li> <li>Use modes of communication suitable to purpose to confirm understanding when conducting operational start-up and shutdown procedures</li> </ul>
Get the work done	<ul style="list-style-type: none"> <li>Access and interpret process control panels and system</li> <li>Maintain a clean and hazard-free work area</li> <li>Identify out-of-specification standards and maintain quality specifications</li> <li>Confirm equipment status and condition</li> <li>Interpret process and equipment information to monitor process and respond to abnormal performance and variations</li> </ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPOPR2005 Operate a beer filling process	FDFOP2072A Operate a beer filling process	Updated to meet Standards for Training Packages	Equivalent unit

## Links

Companion Volumes, including Implementation Guides, are available at VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>



# Assessment Requirements for FBPOPR2005 Operate a beer filling process

## Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 1.0

## Performance Evidence

An individual demonstrating competency in this unit must satisfy all of the elements and performance criteria of this unit.

There must be evidence that the individual has set up, operated, adjusted and shut down a beer filling process on at least one occasion, including:

- accessing workplace information to identify production requirements for the beverage filling process
- conducting pre-start checks, including:
  - inspecting equipment condition to identify any signs of wear
  - selecting appropriate settings and/or related parameters
  - cancelling isolation or lock-outs
  - confirming that equipment is clean and correctly configured for processing requirements
  - positioning sensors and controls correctly
  - ensuring any scheduled maintenance has been carried out
  - confirming that all safety guards are in place and operational
- selecting, fitting and using personal protective clothing and equipment
- setting up and starting up the process, including the use of process control systems, and adjusting the filler to product specifications
- identifying keg, can and bottle sizes relevant to beer filling operation
- identifying types of beer products relevant to beer filling operation
- interpreting the production schedule
- confirming supply of necessary materials and services to the filler
- confirming equipment status and condition
- monitoring the beverage filling process and equipment operation to identify out-of-specification results or non-compliance, including:
  - flow rates/quantity
  - broken bottles

- faulty kegs or cans
- contaminated product
- materials faults
- equipment faults
- services faults
- monitoring supply and flow of materials to and from the filler
- safely accessing, isolating and clearing jams in filling machine
- taking corrective action in response to out-of-specification results or non-compliance
- reporting and/or recording corrective action
- replenishing the filling process with raw materials, ingredients and packaging consumables
- verifying that output meets specifications
- implementing size and product changeovers
- sorting, collecting, treating, recycling or disposing of waste
- shutting down beverage filling equipment in response to emergency situation
- shutting down beverage filling equipment in response to routine shutdown requirements
- preparing beverage filling equipment for cleaning
- maintaining work area to meet housekeeping standards
- recording workplace information
- collecting samples and conducting tests according to workplace procedures
- cleaning and sanitising equipment according to workplace procedures
- following relevant work health and safety procedures.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- purpose and basic principles of the beverage filling process
- relationship between the filling process, bright beer and other brew house operations as well as other packaging operations
- stages that occur during filling and packaging
- requirements of the filling process
- types of fillers used in the beer filling process
- aseptic requirements for preparing containers
- microbiological considerations in filling and packaging beer
- effect of filling on the end product
- quality characteristics to be identified for the beer filling process
- process specifications, procedures and operating parameters
- significance and methods of monitoring control points within the beverage filling process
- equipment and instrumentation components, purpose and operation of the beer filling process
- services used in the filling process



- common causes of variation and corrective action required
- work health and safety hazards and controls relevant to the beer filling process
- workplace procedures and responsibility for reporting problems
- shutdown and cleaning requirements associated with changeovers, and types of shutdowns
- waste handling requirements and procedures relevant to the beer filling process
- recording requirements and procedures, including down time
- environmental issues and controls relevant to the filling and sealing process, including waste/rework collection and handling procedures related to the process
- basic operating principles of process control, including the relationship between control panels and systems and the physical equipment
- aseptic filling and sealing requirements
- cleaning and sanitation procedures required for the beer filling process.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - a workplace or an environment that accurately represents workplace conditions
- resources, equipment and materials:
  - personal protective clothing and equipment
  - beer filling equipment
  - services as required
  - stock required for the beer filling process
  - stock flow system
  - related work areas and communication system
  - routine preventative maintenance schedule as required
  - cleaning schedule as required
  - sampling and testing schedules as required
- specifications:
  - work procedures, including advice on safe work practices, food safety and environmental requirements
  - production schedule, batch instructions
  - material safety sheets, where appropriate
  - specifications, control points and filling parameters
  - documentation and recording requirements and procedures.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volumes, including Implementation Guides, are available at VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## FBPOPR2006 Operate a bulk dry goods transfer process

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 1.0

### Application

This unit of competency describes the skills and knowledge required to receive and transfer bulk (dry) raw materials to storage areas.

The unit applies to individuals who work under general supervision and exercise limited autonomy in a food processing production environment. It typically applies to workers responsible for the operation and monitoring of a dry ingredients transfer process and associated equipment.

All work must be carried out to comply with workplace procedures, in accordance with State/Territory work health and safety, and food safety regulations, legislation and standards that apply to the workplace.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

### Pre-requisite Unit

Nil

### Unit Sector

Operational (OPR)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare for bulk materials transfer work	1.1 Read or listen to work instructions from supervisor and clarify where required 1.2 Identify work health and safety hazards for the bulk dry goods

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	<p>transfer process and inform supervisor</p> <p>1.3 Wear appropriate personal protective equipment and ensure correct fit according to work health and safety requirements</p> <p>1.4 Identify bulk storage locations, ingredient and materials holdings and capacities</p> <p>1.5 Confirm actual to recorded holding levels</p>
2. Check and prepare bulk materials transfer equipment and process for operation	<p>2.1 Confirm the transfer system equipment is ready for use</p> <p>2.2 Select transfer equipment settings and operating parameters to meet safety and transfer requirements</p> <p>2.3 Carry out checks and tests and follow other materials and product clearance procedures prior to transfer</p> <p>2.4 Establish priorities for materials transfer to match intakes and transfers to storage capacity and production requirements</p>
3. Transfer bulk materials	<p>3.1 Start and operate the transfer process according to work health and safety and operating requirements</p> <p>3.2 Monitor the transfer process to confirm correct location selection, quantities and equipment settings</p> <p>3.3 Transfer bulk dry materials and product to the required location or storage facility</p> <p>3.4 Maintain a clean and tidy workplace according to work health and safety and food safety procedures</p> <p>3.5 Maintain workplace records in required format</p> <p>3.6 Conduct work according to workplace environmental guidelines</p>
4. Complete transfer operations	<p>4.1 Select equipment settings to complete transfer operation</p> <p>4.2 Purge in-flight product from lines according to workplace procedures</p> <p>4.3 Clean and prepare equipment for further transfer</p> <p>4.4 Record information on the transfer operation in required format</p> <p>4.5 Identify and report maintenance requirements according to workplace requirements</p>

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Numeracy	<ul style="list-style-type: none"> <li>Interpret system process control data, capacities, quantities and product levels</li> </ul>
Reading	<ul style="list-style-type: none"> <li>Identify product and other transfer requirements from basic order forms</li> <li>Read system information from control screens</li> <li>Identify workplace procedures</li> </ul>
Writing	<ul style="list-style-type: none"> <li>Record data and observations on written and digital media</li> </ul>
Navigate the world of work	<ul style="list-style-type: none"> <li>Apply workplace procedures relevant to own responsibilities</li> <li>Understand main tasks, responsibilities and boundaries of own role, including use of personal protective clothing and equipment, housekeeping standards and procedures, quality requirements and operating procedures</li> <li>Take steps to develop skills and knowledge of transfer process</li> </ul>
Interact with others	<ul style="list-style-type: none"> <li>Communicate and report operational and safety information to relevant persons</li> <li>Select and use appropriate terminology when communicating with personnel and customers</li> <li>Participate in conversations relevant to role by responding and explaining as required</li> </ul>
Get the work done	<ul style="list-style-type: none"> <li>Make routine decisions relating to transfer process</li> <li>Implement standard solutions and responses to familiar problems and incidents</li> <li>Recognise and respond to non-conforming product</li> <li>Use digital technologies including process control screens and systems</li> </ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPOPR2006 Operate a bulk dry goods transfer process	FDFOP2006A Operate a bulk dry goods transfer process	Updated to meet Standards for Training Packages	Equivalent unit

## Links

Companion Volumes, including Implementation Guides, are available at VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# Assessment Requirements for FBPOPR2006 Operate a bulk dry goods transfer process

## Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 1.0

## Performance Evidence

An individual demonstrating competency in this unit must satisfy all of the elements and performance criteria of this unit.

There must be evidence that the individual has received and transferred bulk (dry) raw materials to storage areas on at least one occasion, including:

- accessing workplace information relating to materials transfer requirements and priorities
- selecting, fitting and using personal protective equipment (PPE)
- using workplace records and systems to confirm storage facilities and capacities and determine appropriate routing of materials received (this typically involves use of computer-based systems) and, where required, verifying by physically inspecting storage facilities
- planning and sequencing transfer process to meet storage capacity and production requirements
- preparing equipment for materials transfer, such as confirming that equipment is clean, lines are purged, isolation or lock-outs are cancelled as required, any scheduled maintenance has been completed and safety guards/equipment are correctly positioned
- carrying out procedures to confirm bulk materials meet quality requirements as required by transfer process, such as conducting tests or getting clearance documentation from laboratory/quality personnel
- operating and monitoring transfer process to confirm that correct quantities are transferred at the required times, to the required locations
- locating emergency stop functions on equipment
- responding to and/or reporting equipment failure within level of responsibility
- responding to and/or reporting evidence that bulk materials do not meet quality requirements
- completing the transfer operations, such as purging lines and selecting appropriate equipment/system settings
- completing records of product/materials transfer as required
- maintaining work area to meet housekeeping standards

- using process control and scheduling systems, screens and panels according to enterprise procedures
- following relevant work health and safety requirements.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- bulk dry materials storage layout, capacities and related management systems
- basic operating principles of equipment, such as the system of sensors, valves, pipework and related equipment that controls the transfer of bulk dry materials, equipment operating capacity and the status and purpose of guards
- planning and scheduling systems and responsibilities to prioritise materials transfer processes, including the characteristics of materials received and related storage requirements, production requirements and storage capacities
- signs and symptoms of faulty equipment and early warning signs of potential problems
- operating parameters and corrective action required where operation is outside specified operating parameters
- work health and safety hazards and controls, including the risk of spontaneous combustion, and dust control
- isolation, lock-out and tag-out procedures and responsibilities
- product inspection procedures within level of responsibility, including types of pest infestation and common contamination relevant to dry materials transferred
- procedures for separating and handling non-conforming or unacceptable product
- clearance procedures, such as relevant test methods and action required if results are not within specification or clearance is not provided
- contamination risks and controls, including cross-contamination risks, product compatibility and storage requirements
- environmental issues associated with dry goods handling and storage
- recording requirements and procedures for dry good handling and storage
- basic operating principles of process control, where relevant, including the relationship between control panels and systems and the physical equipment.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - a workplace or an environment that accurately represents workplace conditions
- resources, equipment and materials:
  - personal protective clothing and equipment
  - storage locations, capacities and bulk receipt equipment capacity and operating parameters
  - bulk transfer system, equipment and services



- bulk materials (dry)
- receipt schedules and sequencing systems
- sampling schedules and test procedures and equipment as required
- documentation and recording requirements and procedures
- cleaning procedures, materials and equipment
- specifications:
  - work procedures, including advice on safe work practices, food safety, quality and environmental requirements
  - work roles and responsibilities, training and career information.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volumes, including Implementation Guides, are available at VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## FBPOPR2007 Work in a freezer storage area

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 1.0

### Application

This unit of competency describes the skills and knowledge required to enter and work in a freezer storage or cold room area.

This unit applies to individuals working in in a food processing environment who work under general supervision and exercise limited autonomy, with some accountability for their own work.

All work must be carried out to comply with workplace procedures, in accordance with State/Territory work health and safety, and food safety regulations, legislation and standards that apply to the workplace.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

### Pre-requisite Unit

Nil

### Unit Sector

Operational (OPR)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare to enter a freezer storage environment	1.1 Read or listen to work instructions from supervisor and clarify where required 1.2 Identify work health and safety hazards for working in a freezer

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	storage area and inform supervisor 1.3 Wear appropriate personal protective equipment according to work health and safety requirements 1.4 Confirm clothing and footwear are correctly fitted prior to entering a freezer 1.5 Carry out checks and inspections of freezer storage area
2. Identify and monitor equipment operation in a freezer storage environment	2.1 Identify the effects of freezing temperatures on equipment 2.2 Monitor equipment when in use in a freezer to ensure effective functioning
3. Store frozen product safely	3.1 Identify handling requirements for frozen product according to workplace procedures 3.2 Handle frozen product safely according to workplace requirements
4. Respond to emergencies	4.1 Identify signs and symptoms of exposure to low temperatures 4.2 Take appropriate action to minimise effects of exposure on self and others

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Numeracy	<ul style="list-style-type: none"> <li>Identify product weights for manual lifting purposes</li> <li>Interpret storeroom temperature gauges</li> <li>Count product quantities</li> <li>Interpret freezing rates for products</li> </ul>
Reading	<ul style="list-style-type: none"> <li>Identify product types</li> <li>Interpret workplace procedures and safety information</li> </ul>
Navigate the world of work	<ul style="list-style-type: none"> <li>Apply workplace procedures relevant to own responsibilities</li> <li>Understand main tasks, responsibilities and boundaries of own role, including use of personal protective clothing and equipment, housekeeping standards and procedures, quality requirements and</li> </ul>

Skill	Description
	<ul style="list-style-type: none"><li>operating procedures</li><li>Take steps to develop skills and knowledge</li></ul>
Interact with others	<ul style="list-style-type: none"><li>Communicate and report operational and safety information to relevant persons</li><li>Select and use appropriate terminology when communicating with others</li><li>Participate in conversations relevant to role by responding and explaining as required</li></ul>
Get the work done	<ul style="list-style-type: none"><li>Operate manual load shifting equipment</li><li>Make routine decisions relating to storeroom and equipment cleanliness and condition, and product suitability</li><li>Solve familiar and generally predictable problems within workplace guidelines</li><li>Recognise and respond to non-conforming product</li><li>Use digital technologies, including temperature gauges</li></ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPOPR2007 Work in a freezer storage area	FDFOP2007A Work in a freezer storage area	Updated to meet Standards for Training Packages	Equivalent unit

## Links

Companion Volumes, including Implementation Guides, are available at VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# Assessment Requirements for FBOPR2007 Work in a freezer storage area

## Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 1.0

## Performance Evidence

An individual demonstrating competency in this unit must satisfy all of the elements and performance criteria of this unit.

There must be evidence that the individual has prepared to enter and worked in a freezer storage area on at least one occasion, including:

- locating and fitting appropriate PPE
- following procedures to enter and work in a freezer environment to ensure safety of self and others, including carrying out relevant checks and inspections prior to entry as required by workplace procedures
- following procedures to handle product to avoid product damage
- monitoring operating performance of equipment used in the freezer and identifying signs of unsafe or unfit operation
- conducting work in a manner appropriate to minimising risk of contamination
- maintain work area to meet housekeeping standards
- following relevant work health and safety procedures.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- purpose and conditions required in a freezer storage environment, including how temperature parameters are maintained in the freezer/cold room
- safety requirements and hazards associated with entering and working in a freezer storage/cold room area, including required PPE, limitations of PPE, and maximum work duration
- symptoms associated with hypothermia and action to take if these occur
- the effects of freezer/cold room temperatures and frozen condensation on equipment used in a freezer/cold room but designed for room temperature operation, including symptoms that equipment is unsafe or unfit for use

- effects of room temperatures on equipment using hydraulic oils designed for freezer/cold room temperatures
- typical freezing rates for product handled, including products stacked on pallets
- handling requirements for moving pallets of frozen product and how this differs from moving pallets of fresh product
- the differences in product stability of pallets loaded with fresh compared with frozen product, and related wrapping requirements
- the effect of freezing on product packaging and related handling requirements
- cleaning requirements for a freezer storage area.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - a workplace or an environment that accurately represents workplace conditions
- resources, equipment and materials:
  - personal protective clothing and equipment
  - freezer storage/cold room area
  - stock to be held in frozen storage
- specifications:
  - work roles and responsibilities, training and career information
  - work procedures, including advice on safe work practices, food safety, quality and environmental requirements.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volumes, including Implementation Guides, are available at VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## FBPOPR2008 Operate a bulk liquid transfer process

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 1.0

### Application

This unit of competency describes the skills and knowledge required to receive and load out bulk liquid product or raw materials.

This unit applies to individuals transferring bulk liquid product and materials from tankers and between storage and production storage facilities.

All work must be carried out to comply with workplace procedures, in accordance with State/Territory work health and safety, and food safety regulations, legislation and standards that apply to the workplace.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

### Pre-requisite Unit

Nil

### Unit Sector

Operational (OPR)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare for bulk materials transfer work	1.1 Read or listen to work instructions from supervisor and clarify where required 1.2 Identify work health and safety hazards for the bulk liquid transfer process and inform supervisor

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	<p>1.3 Wear appropriate personal protective equipment and ensure correct fit according to work health and safety requirements</p> <p>1.4 Identify tank locations, and product and materials holdings and capacities</p> <p>1.5 Confirm actual-to-recorded holding levels</p>
2. Prepare bulk liquid transfer equipment and process for operation	<p>2.1 Inspect condition of tank farm and related equipment and identify and report maintenance requirements</p> <p>2.2 Select transfer equipment settings and operating parameters to meet safety and transfer requirements</p> <p>2.3 Carry out checks and tests, and follow other materials and product clearance procedures prior to transfer</p> <p>2.4 Establish the priorities for materials transfer to match intakes and transfers to storage capacity and production requirements</p>
3. Transfer bulk liquid materials	<p>3.1 Start and operate the transfer process according to work health and safety and operating requirements</p> <p>3.2 Monitor the transfer process to confirm correct location selection, quantities and equipment settings</p> <p>3.3 Transfer bulk liquid materials and product to the required location or storage facility</p> <p>3.4 Maintain a clean and tidy workplace according to work health and safety and food safety procedures</p> <p>3.5 Maintain workplace records in required format</p> <p>3.6 Conduct work according to workplace environmental guidelines</p>
4. Complete transfer operations	<p>4.1 Position valves and related equipment settings to complete transfer operation</p> <p>4.2 Purge product and materials from lines according to workplace procedures</p> <p>4.3 Clean and prepare equipment for further transfer</p> <p>4.4 Record information on the transfer operation in required format</p> <p>4.5 Identify and report maintenance activities according to workplace requirements</p>



## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Numeracy	<ul style="list-style-type: none"> <li>Interpret system process control data, capacities, quantities and product levels</li> </ul>
Reading	<ul style="list-style-type: none"> <li>Identify product and other transfer requirements from basic order forms</li> <li>Read system information from control screens</li> <li>Identify workplace procedures</li> </ul>
Writing	<ul style="list-style-type: none"> <li>Record data and observations on written and digital media</li> </ul>
Navigate the world of work	<ul style="list-style-type: none"> <li>Apply workplace procedures relevant to own responsibilities</li> <li>Understand main tasks, responsibilities and boundaries of own role, including use of personal protective clothing and equipment, housekeeping standards and procedures, quality requirements and operating procedures</li> <li>Take steps to develop skills and knowledge of transfer process</li> </ul>
Interact with others	<ul style="list-style-type: none"> <li>Communicate and report operational and safety information to relevant persons</li> <li>Select and use appropriate terminology when communicating with personnel and customers</li> <li>Participate in conversations relevant to role by responding and explaining as required</li> </ul>
Get the work done	<ul style="list-style-type: none"> <li>Make routine decisions relating to transfer process</li> <li>Implement standard solutions and responses to familiar problems and incidents</li> <li>Recognise and respond to non-conforming product</li> <li>Use digital technologies including process control screens and systems</li> </ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPOPR2008 Operate a bulk liquid transfer process	FDFOP2008A Operate a bulk liquid transfer process	Updated to meet Standards for Training Packages	Equivalent unit

## Links

Companion Volumes, including Implementation Guides, are available at VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# Assessment Requirements for FBPOPR2008 Operate a bulk liquid transfer process

## Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 1.0

## Performance Evidence

An individual demonstrating competency in this unit must satisfy all of the elements and performance criteria of this unit.

There must be evidence that the individual has received and loaded out bulk liquid product or raw materials on at least one occasion, including:

- accessing workplace information relating to materials transfer requirements
- selecting, fitting and using personal protection equipment
- inspecting equipment for signs of wear, including visual inspections to detect leaks, listening for unusual noises and/or vibrations in pumps, and checking gauges and meters
- using workplace records and systems to confirm tank holdings and capacities and determining appropriate source/destination holding facilities, including verifying by physically inspecting storage facilities and checking materials/product compatibility
- planning and sequencing transfer process to meet storage capacity and production requirements
- preparing equipment for materials transfer, including confirming that equipment is clean, lines are purged, isolation or lock-outs are cancelled as required, any scheduled maintenance has been completed, and safety guards/equipment are correctly positioned
- carrying out procedures to confirm liquid bulk product/materials meet quality requirements
- operating and monitoring transfer process to confirm that correct quantities are transferred at the required times, to the required locations, including monitoring pump loads and flow rates, and filter/strainer condition
- responding to and/or reporting equipment failure within level of responsibility
- locating emergency stop functions on equipment
- completing transfer operations, including purging lines and selecting appropriate equipment/system settings
- completing records of product/materials transfer as required
- maintaining work area to meet housekeeping standards
- using process control and scheduling systems, screens and panels according to enterprise procedures

- following relevant work health and safety procedures.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- bulk liquid materials storage facilities layout and related management systems
- basic operating principles of the system and equipment used, including the features of the bulk liquid handling system
- equipment used, including sensors, valves, pumps, pipework and other related equipment that controls the flow and transfer of bulk liquid materials, equipment operating capacity and the status and purpose of guards
- planning and scheduling systems and responsibilities to prioritise materials transfer processes, including characteristics of materials received and related storage requirements, production requirements and storage capacities
- signs and symptoms of faulty equipment and early warning signs of potential problems
- operating parameters and corrective action required where operation is outside specified operating parameters
- work health and safety hazards and controls, including emergency procedures to respond to hazardous situations
- product inspection procedures within level of responsibility
- clearance procedures, including relevant test methods and action required if results are not within specification or clearance is not provided
- contamination risks and controls, including cross-contamination risks, product compatibility and storage requirements
- isolation, lock-out and tag-out procedures and responsibilities
- environmental issues associated with bulk liquid materials transfer, including consequences of spills and appropriate control/containment procedures
- recording requirements and procedures for the bulk liquid transfer process
- basic operating principles of process control, where relevant, including the relationship between control panels and systems and the physical equipment
- workplace cleaning procedures required for the bulk liquid transfer process.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - a workplace or an environment that accurately represents workplace conditions
- resources, equipment and materials:
  - personal protective clothing and equipment
  - bulk transfer system, equipment and services
  - bulk materials (liquid)
  - receipt schedules and sequencing systems

- sampling schedules and test procedures and equipment as required
- documentation and recording requirements and procedures
- cleaning procedures, materials and equipment
- specifications:
  - work roles and responsibilities, training and career information
  - work procedures, including advice on safe work practices, food safety, quality and environmental requirements
  - storage locations, capacities and bulk receipt equipment capacity and operating parameters.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volumes, including Implementation Guides, are available at VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## FBPOPR2009 Load and unload tankers

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 1.0

### Application

This unit of competency describes the skills and knowledge required to prepare, load and unload transport tankers with bulk product.

This unit applies to individuals who work under general supervision and exercise limited autonomy with some accountability for their own work.

All work must be carried out to comply with workplace procedures, in accordance with State/Territory work health and safety, and food safety regulations, legislation and standards that apply to the workplace.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

### Pre-requisite Unit

Nil

### Unit Sector

Operational (OPR)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare transport tankers for loading	1.1 Read or listen to work instructions from supervisor and clarify where needed 1.2 Identify work health and safety hazards and tell supervisor 1.3 Wear appropriate personal protective equipment

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	1.4 Check the loading schedule to confirm loading requirements 1.5 Confirm that transfer equipment is in operational condition 1.6 Select transfer equipment settings and operating parameters to meet safety and loading requirements 1.7 Locate bulk materials to confirm type, quantity available and clearance for loading 1.8 Confirm priorities for loading to meet delivery requirements
2. Prepare to unload transport tankers	2.1 Check that receipts documentation confirms material type and quantities 2.2 Clear materials for unloading according to workplace procedures and safety requirements 2.3 Identify bulk storage locations, holdings and capacities 2.4 Confirm actual-to-recorded holding levels 2.5 Confirm transfer equipment is in operational condition 2.6 Confirm priorities for unloading to meet delivery requirements
3. Operate and monitor the tanker loading and unloading process	3.1 Start and operate the tanker loading process according to work health and safety and operating procedures 3.2 Monitor equipment to confirm load transfer to correct tanker in correct quantities 3.3 Identify and report variations in equipment operation 3.4 Maintain a clean and tidy workplace according to work health and safety procedures 3.5 Maintain workplace records according to workplace procedures 3.6 Conduct work according to workplace environmental guidelines
4. Complete loading operations	4.1 Select equipment settings to complete loading operation 4.2 Purge in-flight product from lines 4.3 Clean equipment and prepare for further loading according to work health and safety and food safety procedures 4.4 Record information on the loading operation according to workplace procedures 4.5 Identify and report maintenance requirements according to workplace procedures

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Numeracy	<ul style="list-style-type: none"><li>Interpret capacities, quantities and product levels</li></ul>
Reading	<ul style="list-style-type: none"><li>Locate information relevant to product and other loading requirements</li></ul>
Writing	<ul style="list-style-type: none"><li>Record data and observations on written and digital media</li></ul>
Navigate the world of work	<ul style="list-style-type: none"><li>Apply workplace procedures relevant to own responsibilities</li><li>Understand main tasks, responsibilities and boundaries of own role, including use of personal protective clothing and equipment, housekeeping standards and procedures, quality requirements and operating procedures</li></ul>
Interact with others	<ul style="list-style-type: none"><li>Communicate and report operational and safety information to relevant persons</li></ul>
Get the work done	<ul style="list-style-type: none"><li>Make routine decisions relating to loading and unloading process</li><li>Recognise and respond to non-conforming product and equipment</li></ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPOPR2009 Load and unload tankers	FDFOP2009A Load and unload tankers	Updated to meet Standards for Training Packages	Equivalent unit

## Links

Companion Volumes, including Implementation Guides, are available at VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>



# Assessment Requirements for FBOPR2009 Load and unload tankers

## Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 1.0

## Performance Evidence

An individual demonstrating competency in this unit must satisfy all of the elements and performance criteria of this unit.

There must be evidence that the individual has loaded and unloaded tankers on at least one occasion, including:

- accessing workplace information relating to loading/unloading requirements
- selecting, fitting and using personal protective equipment
- inspecting loading/unloading equipment for signs of wear
- confirming that tankers are in suitable condition for loading
- checking receivals/despatch documentation to confirm material types, quantities and transfer requirements
- confirming that bulk product/materials meet quality requirements for loading/unloading
- using workplace records and systems to confirm storage holdings and capacities and source/destination for loads
- planning and sequencing loading/unloading to meet delivery requirements/storage capacity and production requirements
- preparing transfer equipment for use
- operating and monitoring the loading/unloading process to confirm that correct quantities are transferred at the required times, to the required locations
- responding to and/or reporting equipment failure within level of responsibility
- completing transfer operations
- completing records of product/materials transfer
- maintaining work area to meet housekeeping standards
- following relevant work health and safety procedures.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- bulk storage facilities layout and related management systems
- basic operating principles of the system and equipment used, including the features of the tanker loading/unloading and materials transfer systems
- equipment that controls the flow and transfer of bulk materials, equipment operating capacity and the status and purpose of guards
- tanker types and capacities
- planning and scheduling systems and responsibilities to prioritise loading and unloading processes, including the characteristics of materials received and related storage requirements, production requirements and storage capacities
- signs and symptoms of faulty equipment and early warning signs of potential problems including leaks, unusual noises and/or vibrations in pumps
- operating parameters and corrective action required where operation is outside specified operating parameters
- product inspection and procedures within level of responsibility
- steps in preparing transfer equipment for use, including confirming that equipment is clean, lines are purged, isolation or lock-outs are cancelled as required, and any scheduled maintenance has been completed
- steps in confirming that tankers are in suitable condition for loading, including checking cleaning records and confirming that any scheduled maintenance has been carried out
- steps in confirming that correct quantities are transferred at the required times, to the required locations, including monitoring pump loads, flow rates and filter/strainer condition
- clearance procedures, including relevant test methods and action required if results are not within specification or clearance is not provided
- work health and safety hazards and controls, including emergency procedures to respond to hazardous situations
- when and how to use emergency stop functions on equipment
- contamination risks and controls, including cross-contamination risks, product compatibility and storage requirements
- isolation, lock-out and tag-out procedures and responsibilities
- environmental issues associated with bulk liquid materials transfer, including consequences of spills and appropriate control/containment procedures
- recording requirements and procedures, including related receivals and despatch documentation
- cleaning procedures for loading and unloading tankers.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - a workplace or an environment that accurately represents workplace conditions
- resources, equipment and materials:
  - personal protective clothing and equipment
  - loading/unloading schedules and related receivals and/or despatch documentation

- tankers, storage facilities, materials transfer equipment and related equipment and services
- materials for loading/unloading
- cleaning procedures, materials and equipment
- specifications:
  - work procedures, including advice on safe work practices, food safety, quality and environmental requirements
  - information about equipment capacity and operating parameters and tanker types and capacities
  - loading/unloading information recording system and procedures.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volumes, including Implementation Guides, are available at VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## FBPOPR2010 Work with temperature controlled stock

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 1.0

### Application

This unit of competency describes the skills and knowledge required to store and retrieve temperature controlled stock from appropriate storage facilities.

This unit applies to individuals who work in controlled temperature environments under general supervision and exercise limited autonomy with some accountability for their own work.

All work must be carried out to comply with workplace procedures, in accordance with State/Territory work health and safety, and food safety regulations, legislation and standards that apply to the workplace.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

### Pre-requisite Unit

Nil

### Unit Sector

Operational (OPR)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Store stock to meet temperature control requirements	1.1 Read or listen to work instructions from supervisor and clarify where needed 1.2 Identify work health and safety hazards and tell supervisor

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	1.3 Wear appropriate personal protective equipment and ensure correct fit 1.4 Identify goods requiring temperature control according to workplace requirements 1.5 Locate goods in correct storage areas to meet storage temperature, stores handling and stock rotation requirements 1.6 Record stores information according to workplace procedures
2. Monitor and maintain temperature of stock within specifications	2.1 Monitor stock temperature to confirm temperature is within specified limits 2.2 Monitor storage areas to confirm temperature is within storage zone limits 2.3 Monitor residence time in temperature controlled stores to meet stock control requirements 2.4 Identify and report out-of-specification storage temperatures and take corrective action according to workplace procedures
3. Transfer temperature controlled stock	3.1 Handle and transfer goods to maintain temperature control and meet stock rotation requirements according to work health and safety and food safety requirements

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Numeracy	<ul style="list-style-type: none"> <li>Identify stock weights and quantities</li> <li>Read instrumentation gauges</li> </ul>
Reading	<ul style="list-style-type: none"> <li>Identify and locate stock</li> <li>Identify requirements from basic order forms</li> <li>Interpret workplace procedures and specifications</li> </ul>
Writing	<ul style="list-style-type: none"> <li>Complete records of stock receipt and transfer</li> </ul>
Navigate the world of	<ul style="list-style-type: none"> <li>Apply workplace procedures relevant to own responsibilities</li> <li>Understand main tasks, responsibilities and boundaries of own</li> </ul>

Skill	Description
work	<ul style="list-style-type: none"><li>role, including use of personal protective clothing and equipment, housekeeping standards and procedures, quality requirements and operating procedures</li><li>Take steps to develop skills and knowledge of stock</li></ul>
Interact with others	<ul style="list-style-type: none"><li>Communicate and report operational and safety information to relevant persons</li><li>Select and use appropriate terminology when communicating with personnel</li><li>Participate in conversations relevant to role by responding and explaining as required</li></ul>
Get the work done	<ul style="list-style-type: none"><li>Make routine decisions relating to freshness and handling of stock</li><li>Recognise and respond to non-conforming stock</li><li>Use digital technologies including thermometers and temperature probes</li></ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPOPR2010 Work with temperature controlled stock	FDFOP2010A Work with temperature controlled stock	Updated to meet Standards for Training Packages	Equivalent unit

## Links

Companion Volumes, including Implementation Guides, are available at VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## Assessment Requirements for FBPOPR2010 Work with temperature controlled stock

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 1.0

### Performance Evidence

An individual demonstrating competency in this unit must satisfy all of the elements and performance criteria of this unit.

There must be evidence that the individual has worked with temperature controlled stock on at least one occasion, including:

- accessing workplace information to determine stock handling and storage requirements
- identifying storage requirements, including temperature limits, minimum duration at given temperatures, and segregation and co-storage requirements
- identifying temperature controlled storage facilities and temperature zones available
- selecting, fitting and using PPE
- using materials handling equipment in a temperature controlled environment as required to undertake work functions
- following procedures to measure core and surface temperature of stock
- reading instrumentation
- identifying and reporting out-of-specification temperatures in stock and storage facilities
- taking corrective action in response to out-of-specification temperatures, including implementation of procedures to segregate damaged or potentially unsafe stock
- completing records of stock receipt and transfer as required
- maintaining work area to meet workplace cleaning standards
- following relevant work health and safety procedures.

### Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- work health and safety hazards and controls, including the purpose and limitations of PPE
- temperature controlled storage facilities and capacities available in the work area

- temperature control requirements of stock handled in the work area, including acceptable temperature ranges and consequences of failing to meet these ranges and, where required, requirements for gradual temperature change
- stock handling procedures for receiving and locating stock within a store, including stock rotation and procedures for identifying, segregating and disposing of damaged or potentially unsafe stock
- stock handling procedures for transferring temperature controlled stock from a temperature controlled environment, including maximum duration stock can be held outside a controlled environment
- food safety and quality consequences of stock temperature control requirements not being met
- monitoring procedures and instrumentation, including use of thermometers or other temperature measuring instrumentation
- notification, recording and reporting requirements for temperature controlled stock
- operating procedures for goods handling equipment as required
- workplace cleaning standards for the work area
- recording requirements and procedures for working with temperature controlled stock.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - a workplace or an environment that accurately represents workplace conditions
- resources, equipment and materials:
  - personal protective clothing and equipment
  - controlled temperature storage facilities
  - stock requiring storage
  - load shifting equipment as required
- specifications:
  - work procedures, including advice on safe work practices, food safety, quality and environmental requirements
  - temperature storage specifications
  - stock information recording system and procedures
  - stock handling and rotation systems.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volumes, including Implementation Guides, are available at VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>





# FBPOPR2011 Identify key stages and beer production equipment in a brewery

## Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 1.0

## Application

This unit of competency describes the skills and knowledge required to identify key stages and beer production equipment in a brewery.

This unit applies to individuals who work under general supervision and exercise limited autonomy in a food processing environment.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

## Pre-requisite Unit

Nil

## Unit Sector

Operational (OPR)

## Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Recognise locations and equipment in the brewery for each stage of the brewing process	1.1 Identify location for each beer production stage 1.2 Identify major equipment and equipment function for each beer production stage
2. Identify key information for each beer	2.1 Locate workplace information for each production stage 2.2 Confirm work health and safety policy and procedures appropriate

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
production stage	for the workplace and each production stage 2.3 Confirm supervisor or key resource person for each location
3. Identify workplace objectives, products and procedures	3.1 Identify workplace objectives and procedures 3.2 Identify products produced and other services provided by the workplace 3.3 Locate key support functions and explain their contribution to product range and quality 3.4 Recognise key responsibilities of own section or function 3.5 Distinguish work team roles and responsibilities

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"> <li>Interpret and comprehend workplace information relevant to job role</li> </ul>
Navigate the world of work	<ul style="list-style-type: none"> <li>Identify responsibilities associated with own role</li> </ul>
Interact with others	<ul style="list-style-type: none"> <li>Use modes of communication suitable to purpose to confirm understanding</li> </ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPOPR2011 Identify key stages and beer production equipment in a	FDFOP2071A Identify key stages and beer production equipment in a	Updated to meet Standards for Training Packages	Equivalent unit

Code and title current version	Code and title previous version	Comments	Equivalence status
brewery	brewery		

## Links

Companion Volumes, including Implementation Guides, are available at VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## Assessment Requirements for FBPOPR2011 Identify key stages and beer production equipment in a brewery

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 1.0

### Performance Evidence

An individual demonstrating competency in this unit must satisfy all of the elements and performance criteria of this unit.

There must be evidence that the individual has identified key stages and beer production equipment in at least one brewery, including:

- identifying the stages in the brewing process and matching these to different locations within the brewery or company
- locating and explaining key functions of the work site, including:
  - key people
  - specific work areas and their functions
  - how functions relate to each other
- identifying how each function or process contributes to workplace objectives and product quality
- identifying own workplace, key equipment and site layout, roles and responsibilities
- identifying workplace information sources, and updating and accessing requirements and procedures.

### Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- workplace objectives as they relate to beer production
- workplace product and services range
- key production sites of the brewery
- key functions and processes within the workplace
- how each function or process contributes to product and services quality
- own workplace and site layout, roles and responsibilities
- features and purpose of key equipment and work areas
- key people's roles and responsibilities within the brewery

- reporting procedures and processes for key stages and beer production equipment in a brewery
- workplace information sources, and updating and accessing of requirements and procedures.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - a workplace or an environment that accurately represents workplace conditions
- specifications:
  - work procedures, instructions and general workplace information

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volumes, including Implementation Guides, are available at VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## FBPOPR2012 Maintain food safety when loading, unloading and transporting food

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 1.0

### Application

This unit of competency describes the skills and knowledge required to maintain food safety when loading and transporting temperature-sensitive ingredients and products.

This unit applies to loading, unloading and transport activities where the transport operator does not have direct physical contact with food. Where food is handled directly by the transport operator, the relevant food handling unit also applies.

All work must be carried out to comply with workplace procedures, in accordance with State/Territory work health and safety, and food safety regulations, legislation and standards that apply to the workplace.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

### Pre-requisite Unit

Nil

### Unit Sector

Operational (OPR)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare to transport food	1.1 Read or listen to work instructions from supervisor and clarify where needed

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	1.2 Identify work health and safety hazards and tell supervisor 1.3 Wear appropriate personal protective equipment and ensure correct fit 1.4 Confirm that food storage vehicles, containers and receptacles are appropriate for use 1.5 Prepare food storage vehicles and containers and receptacles for use according to workplace procedures and safety and food safety requirements 1.6 Load and secure food to meet transportation and temperature control requirements according to workplace procedures and food safety requirements 1.7 Follow hand washing and disinfecting procedures according to food safety requirements
2. Load, unload and transport food safely	2.1 Monitor food safety control measures to ensure that food safety is maintained during transport 2.2 Report incidents where food safety control requirements are not met and take corrective action as directed 2.3 Unload food according to workplace procedures and transportation and temperature control requirements 2.4 Record food safety information according to workplace procedures

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Numeracy	<ul style="list-style-type: none"> <li>Assemble and sort product</li> <li>Count accurately</li> <li>Read a thermometer and temperature charts</li> <li>Weigh product</li> </ul>
Reading	<ul style="list-style-type: none"> <li>Check cleaning records</li> <li>Interpret and follow food safety and work health and safety requirements</li> </ul>



Skill	Description
Navigate the world of work	<ul style="list-style-type: none"> <li>• Apply workplace procedures relevant to own responsibilities</li> <li>• Understand main tasks, responsibilities and boundaries of own role, including use of personal protective clothing and equipment, housekeeping standards and procedures, quality requirements and operating procedures</li> <li>• Take steps to develop skills and knowledge of temperature controlled food products</li> </ul>
Interact with others	<ul style="list-style-type: none"> <li>• Communicate and report operational and safety information to relevant persons</li> <li>• Select and use appropriate terminology when communicating with personnel</li> <li>• Participate in conversations relevant to role by responding and explaining as required</li> </ul>
Get the work done	<ul style="list-style-type: none"> <li>• Make routine decisions relating to temperature, freshness and handling of product</li> <li>• Recognise and respond to non-conforming product</li> <li>• Use digital technologies including electronic scales</li> </ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPOPR2012 Maintain food safety when loading, unloading and transporting food	FDFOP2012A Maintain food safety when loading, unloading and transporting food	Updated to meet Standards for Training Packages	Equivalent unit

## Links

Companion Volumes, including Implementation Guides, are available at VETNet: - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## Assessment Requirements for FBPOPR2012 Maintain food safety when loading, unloading and transporting food

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 1.0

### Performance Evidence

An individual demonstrating competency in this unit must satisfy all of the elements and performance criteria of this unit.

There must be evidence that the individual has maintained food safety when loading, unloading and transporting food on at least one occasion, including:

- accessing workplace information to determine food handling and transport requirements
- selecting, fitting and using PPE
- confirming that the vehicle and associated equipment are appropriate and ready for use, including confirming that vehicle type is capable of maintaining the required temperature range for product
- preparing transport containers (this will vary depending on the type of food and transport method), such as checking cleaning records and, where required, confirming product compatibility to ascertain that appropriate level of cleaning has occurred
- preparing the storage/holding environment as required, including confirming that temperature parameters for the loading and unloading areas are met
- following procedures to load/unload food to ensure that materials/product is loaded/unloaded in correct sequence and configuration and that food cannot become contaminated by being located in proximity to other food or non-food items that can cause contamination (osmosis)
- monitoring temperature parameters and related food safety control points before, during and after transporting food, and recording information in the required format
- taking appropriate corrective action in response to failure to meet temperature parameters or other food safety requirements as required by workplace procedures
- cleaning and sanitising food containers according to enterprise procedures
- following relevant work health and safety procedures.

### Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- work health and safety hazards and controls, including the purpose and limitations of protective clothing and equipment
- food safety control points in the loading/unloading and transportation of food materials and product, and related methods of control
- characteristics of food transported and related transport environment requirements
- microbiological, physical and chemical hazards that can occur when loading, transporting and unloading food, appropriate to nature and method of food transported, including the types of hazards likely to occur, the conditions under which they occur, and possible consequences
- methods and procedures used to control food safety hazards (this depends on the type of controls and equipment used), including the purpose and operation of equipment procedures in place to maintain food safety and workplace records, such as temperature control charts and cleaning and sanitation records
- procedures used to confirm that transportation and related food safety equipment is appropriate for use and operational, such as equipment capacity to maintain a given temperature environment appropriate to the food product
- cleaning and sanitation requirements for maintaining food safety when loading, unloading and transporting food
- potential for cross-contamination resulting from location in proximity to other food or non-food items that are transported, where contamination by osmosis is a possibility.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - a workplace or an environment that accurately represents workplace conditions
- resources, equipment and materials:
  - workplace information, including temperature charts and cleaning records
  - food storage vehicles, containers and receptacles
  - food materials and product to be loaded/unloaded and transported
- specifications:
  - work procedures relevant to loading/unloading and transportation, including advice on required temperature parameters to be maintained
  - food safety information
  - loading/unloading and transport advice/schedules
  - documentation and recording requirements and procedures.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volumes, including Implementation Guides, are available at VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## FBPOPR2013 Operate a bright beer tank process

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 1.0

### Application

This unit of competency describes the skills and knowledge required to set up, operate, adjust and shut down a bright beer tank process.

This unit applies to individuals who work under general supervision and exercise limited autonomy in a food processing environment. It typically applies to the production worker responsible for applying basic operating principles to the operation and monitoring of a bright beer tank process and associated equipment.

All work must be carried out to comply with workplace procedures, in accordance with State/Territory work health and safety, and food safety regulations, legislation and standards that apply to the workplace.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

### Pre-requisite Unit

FBPOPR2011 Identify key stages and beer production equipment in a brewery.

### Unit Sector

Operational (OPR)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare bright beer tank process for operation	1.1 Confirm beer is available to meet production requirements 1.2 Confirm availability of services according to workplace

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	<p>procedures and requirements</p> <p>1.3 Check equipment to confirm readiness for use according to workplace procedures</p> <p>1.4 Wear appropriate personal protective clothing and ensure correct fit</p> <p>1.5 Carry out pre-start checks according to operator instructions</p>
2. Operate and monitor bright beer tanks and equipment	<p>2.1 Start up the system and receive beer from filtration process according to work health and safety and operating procedures</p> <p>2.2 Monitor equipment and control points, adjusting temperature, pressure and carbon dioxide to confirm performance is maintained within specification</p> <p>2.3 Confirm system and sub-system outputs meet specification</p> <p>2.4 Undertake testing to ensure yeast effectiveness and freedom from bacterial contamination</p> <p>2.5 Transfer bright beer to filling and packaging stations according to workplace procedures</p> <p>2.6 Record production and other workplace information according to workplace procedures</p>
3. Shut down the system	<p>3.1 Shut down the system safely according to operating procedures</p> <p>3.2 Clean and maintain equipment to meet workplace cleaning schedule and procedural requirements</p> <p>3.3 Collect, treat and dispose of or recycle waste generated by both the process and cleaning procedures according to workplace procedures</p> <p>3.4 Record workplace information according to workplace procedures</p>

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"> <li>Interpret workplace and standard operating procedures relevant to job role</li> </ul>

Skill	Description
	<ul style="list-style-type: none"> <li>Interpret production requirements</li> </ul>
Writing	<ul style="list-style-type: none"> <li>Record operating, routine maintenance and shutdown information on paper-based and electronic media</li> </ul>
Numeracy	<ul style="list-style-type: none"> <li>Monitor and interpret production and process control indicators and data</li> <li>Monitor supply and flow of materials to and from the process</li> </ul>
Navigate the world of work	<ul style="list-style-type: none"> <li>Apply workplace procedures to own role and responsibilities</li> <li>Identify skills, knowledge and experience required for performing own role in the workplace</li> <li>Ask questions to clarify understanding or seek further information</li> </ul>
Interact with others	<ul style="list-style-type: none"> <li>Communicate and report operational and safety information to relevant personnel</li> <li>Use modes of communication suitable to purpose to confirm understanding when conducting operational start-up and shutdown procedures</li> </ul>
Get the work done	<ul style="list-style-type: none"> <li>Access and interpret process control panels and system</li> <li>Maintain a clean and hazard-free work area</li> <li>Identify out-of-specification standards and maintain quality specifications</li> <li>Confirm equipment status and condition</li> <li>Interpret process and equipment information to monitor process and respond to abnormal performance and variations</li> </ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPOPR2013 Operate a bright beer tank process	FDFOP2070A Operate a bright beer tank process	Updated to meet Standards for Training Packages	Equivalent unit

## Links

Companion Volumes, including Implementation Guides, are available at VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# Assessment Requirements for FBPOPR2013 Operate a bright beer tank process

## Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 1.0

## Performance Evidence

An individual demonstrating competency in this unit must satisfy all of the elements and performance criteria of this unit.

There must be evidence that the individual has set up, operated, adjusted and shut down a bright beer tank process on at least one occasion, including:

- identifying turbulence and undertaking appropriate corrective action
- confirming equipment status, including checking:
  - hygiene and sanitation standards are met
  - all safety guards are in place and equipment is operational
- monitoring for bacteria and quality
- monitoring oxygen and its effect on quality
- monitoring temperature and its effect on quality
- using fobbing equipment correctly to control oxygen and beer quality
- operating vessel transfer equipment
- handling dangerous goods according to procedures
- monitoring control points within the bright beer process
- operating bright beer related equipment
- identifying common causes of variation and undertaking corrective action required
- identifying work health and safety hazards and implementing appropriate action
- selecting, fitting and using personal protective clothing and equipment
- shutting down filtration process and equipment and implementing cleaning requirements associated with changeovers
- recording production and other data according to procedures
- collecting samples and conducting tests according to workplace procedures
- cleaning and sanitising equipment according to workplace procedures
- maintaining work area to meet workplace cleaning procedures and standards.



## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- purpose and principles of bright beer procedures
- consequences of turbulence and the procedures to avoid it
- effect of bacteria, oxygen and temperature on quality
- fobbing and its effect on quality
- process specifications, procedures and operating parameters
- significance and methods of monitoring control points within the bright beer process
- beer tank processing equipment and instrumentation components, purpose and operation
- common causes of variation and corrective action required, including procedures and responsibilities for reporting problems
- work health and safety hazards and controls relevant to bright beer process, including procedures for handling dangerous goods
- environmental issues and controls, including waste handling requirements and procedures
- shutdown and cleaning requirements associated with changeovers, and types of shutdown
- recording requirements and procedures for operating a bright beer tank process
- cleaning and sanitation procedures for a bright beer tank process
- sampling and testing procedures for a bright beer tank process.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - a workplace or an environment that accurately represents workplace conditions
- resources, equipment and materials:
  - equipment used in the bright beer process
  - personal protective clothing and equipment
  - relevant hazard control equipment
  - storage areas for hazardous goods
  - manual handling equipment
- specifications:
  - standard operating procedures and related advice on specific safe work practices, policies and codes of practice relating to work health and safety
  - emergency and/or evacuation procedures for the range of potential hazards.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volumes, including Implementation Guides, are available at VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## FBPOPR2014 Participate in sensory analyses

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 1.0

### Application

This unit of competency describes the skills and knowledge required to participate in sensory analyses of food products and ingredients.

This unit applies to individuals who work in the food processing industry under general supervision and with limited autonomy. It covers analyses of food product or ingredients using taste, texture, appearance and smell.

All work must be carried out to comply with workplace procedures, in accordance with State/Territory work health and safety legislation that apply to the workplace.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

### Pre-requisite Unit

Nil

### Unit Sector

Operational (OPR)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare to conduct sensory analysis	1.1 Read or listen to work instructions from supervisor and clarify where needed 1.2 Identify work health and safety hazards and inform supervisor 1.3 Wear appropriate personal protective equipment and ensure

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	correct fit 1.4 Ensure that personal conduct and the test environment are appropriate to conducting sensory analysis
2. Conduct sensory analysis	2.1 Ensure that samples are available for analysis 2.2 Use the correct method and criteria for sampling according to workplace procedures and requirements 2.3 Analyse samples using analysis criteria 2.4 Identify and report defects or abnormalities in sample 2.5 Record results according to workplace procedures

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Numeracy	<ul style="list-style-type: none"> <li>Calculate sample quantities</li> </ul>
Reading	<ul style="list-style-type: none"> <li>Interpret standard operating procedures (SOPs), specifications and sampling plans</li> </ul>
Writing	<ul style="list-style-type: none"> <li>Use paper-based and electronic media to record sampling results</li> </ul>
Navigate the world of work	<ul style="list-style-type: none"> <li>Apply workplace procedures relevant to own responsibilities</li> </ul>
Interact with others	<ul style="list-style-type: none"> <li>Communicate and report sampling information to relevant persons</li> <li>Select and use appropriate terminology when communicating with and explaining information to others</li> </ul>
Get the work done	<ul style="list-style-type: none"> <li>Make routine decisions about sample conformance</li> <li>Solve familiar and generally predictable problems within workplace guidelines</li> <li>Use sampling tools and equipment</li> </ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPOPR2014 Participate in sensory analyses	FDFOP2014A Participate in sensory analyses	Updated to meet Standards for Training Packages	Equivalent unit

## Links

Companion Volumes, including Implementation Guides, are available at VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# Assessment Requirements for FBOPR2014 Participate in sensory analyses

## Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 1.0

## Performance Evidence

An individual demonstrating competency in this unit must satisfy all of the elements and performance criteria of this unit.

There must be evidence that the individual has participated in sensory analyses of food products and ingredients on at least one occasion, including:

- accessing and interpreting sensory analysis schedule and analysis criteria to identify requirements
- selecting, fitting and using personal protective equipment
- ensuring that personal conduct does not jeopardise analytical ability
- confirming that samples are available and in an appropriate condition for analysis
- following procedures to analyse samples provided
- recording and/or reporting results of analysis
- following relevant work health and safety procedures.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- work health and safety hazards and controls, including the purpose and limitations of protective clothing and equipment
- principles of sensory analysis, including attributes that can be detected by taste and smell, how these different tastes are detected, and an understanding of attributes detected by mouth feel and appearance
- sensory analysis system and procedures
- specific criteria used to evaluate material/product samples and the associated descriptions
- sample preparation requirements, including the effect of sample temperature on sensory analysis
- the effect of personal conduct on analytical ability, including stimuli and conditions that can dull sensitivity
- requirements of the environment appropriate to conducting sensory analyses

- the components of material/product sampled that contribute to flavour, aroma, appearance and texture
- the likely causes of variation in results, including typical variation that can occur in the material/product and how these occur, as well as how the method of analysis, environment and state of individual participants can affect the outcome
- procedures and responsibility for recording and reporting sensory analysis information.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - a workplace or an environment that accurately represents workplace conditions
- resources, equipment and materials:
  - recording and reporting media
  - product/source material to be sampled
- specifications:
  - documentation, including specifications, work instruction, sensory analysis criteria and other advice on sampling requirements.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volumes, including Implementation Guides, are available at VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## FBPOPR2015 Operate a beer filtration process

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 1.0

### Application

This unit of competency describes the skills and knowledge required to set up, operate, adjust and shut down a beer filtration process.

This unit applies to individuals who work under general supervision and exercise limited autonomy in a food processing environment. It typically applies to the production worker responsible for applying basic operating principles to the operation and monitoring of a beer filtration process and associated equipment.

All work must be carried out to comply with workplace procedures, in accordance with State/Territory work health and safety, and food safety regulations, legislation and standards that apply to the workplace.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

### Pre-requisite Unit

FBPOPR2011 Identify key stages and beer production equipment in a brewery.

### Unit Sector

Operational (OPR)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare the filtration process for operation	1.1 Confirm availability of required materials according to operating requirements 1.2 Confirm availability of services according to operating



Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	<p>requirements</p> <p>1.3 Wear appropriate personal protective clothing and ensure correct fit</p> <p>1.4 Conduct pre-start checks of equipment according to operator instructions, including checking that hygiene and sanitation standards are met</p> <p>1.5 Set the filtration process to meet production requirements</p>
2. Operate and monitor the beer filtration system	<p>2.1 Start up beer filtration equipment according to operating procedures</p> <p>2.2 Monitor equipment and control points to confirm performance is maintained within specification</p> <p>2.3 Undertake blending of beer according to workplace procedures, as part of filtration process</p> <p>2.4 Confirm system and sub-system outputs meet specifications</p> <p>2.5 Identify, rectify and/or report out-of-specification product, process and equipment performance</p> <p>2.6 Record production and other workplace information according to workplace procedures</p>
3. Shut down the filtration system	<p>3.1 Shut down the system safely according to operating procedures</p> <p>3.2 Clean and maintain equipment to meet the workplace cleaning schedule and procedural requirements</p> <p>3.3 Collect, treat and dispose of or recycle waste generated by both the process and cleaning procedures</p> <p>3.4 Record workplace information according to workplace procedures</p>

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"> <li>Interpret and comprehend information relevant to job role</li> </ul>

Skill	Description
Writing	<ul style="list-style-type: none"><li>Record operating, routine maintenance and shutdown information in required format</li></ul>
Numeracy	<ul style="list-style-type: none"><li>Monitor and interpret production and process data</li><li>Monitor supply and flow of materials to and from the process</li></ul>
Navigate the world of work	<ul style="list-style-type: none"><li>Apply workplace procedures and relevant legislative requirements applicable to own role and responsibilities</li></ul>
Get the work done	<ul style="list-style-type: none"><li>Plan and organise resources required to process</li><li>Address problems directly related to own role</li></ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPOPR2015 Operate a beer filtration process	FDFOP2069A Operate a beer filtration process	Updated to meet Standards for Training Packages	Equivalent unit

## Links

Companion Volumes, including Implementation Guides, are available at VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# Assessment Requirements for FBPOPR2015 Operate a beer filtration process

## Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 1.0

## Performance Evidence

An individual demonstrating competency in this unit must satisfy all of the elements and performance criteria of this unit.

There must be evidence that the individual has set up, operated, adjusted and shut down at least one beer filtration process, including:

- confirming equipment status, including checking:
  - hygiene and sanitation standards are met
  - all safety guards are in place
  - equipment is operational
  - filter aids, filtration beds and filters
- identifying work health and safety hazards and implementing appropriate action
- selecting, fitting and using personal protective clothing and equipment
- operating filtration equipment according to specifications, procedures and operating parameters
- monitoring control points within the filtration process
- undertaking required corrective action in the event of variations to specification and procedures
- shutting down filtration process and equipment and implementing cleaning requirements associated with changeovers
- applying waste handling requirements and procedures
- maintaining required production records
- maintaining work area to meet hygiene standards
- cleaning and sanitising equipment according to workplace procedures.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- purpose and principles of the filtration process

- relationship between the work production process, the fermentation process, the maturation process and bright beer tanks
- stages and changes that occur during filtration
- purpose of filter aids, filtration beds and filters in the beer production process
- significance and methods of monitoring control points within the filtration process
- beer filtration equipment used, including components, purpose and operation
- common causes of variation and corrective action required
- work health and safety hazards and controls relevant to the beer filtration process
- environmental issues and controls, including waste handling requirements and procedures
- shutdowns and cleaning requirements associated with changeovers
- recording requirements and procedures for operating a beer filtration process
- cleaning and sanitation procedures for beer filtration equipment.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - a workplace or an environment that accurately represents workplace conditions
- resources, equipment and materials:
  - personal protective clothing and equipment
  - relevant hazard control equipment and storage areas for hazardous goods
  - filtration equipment
  - filter aids and stabilising agents
  - workplace information system
- specifications:
  - workplace procedures, including safe work practices, food safety, quality, and environmental requirements
  - specifications, control points and parameters for the beer filtration equipment and process
  - beer filtration equipment operating and service manuals
  - record-keeping documents required for the work specified in the performance evidence.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volumes, including Implementation Guides, are available at VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## FBPOPR2016 Operate a beer maturation process

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 1.0

### Application

This unit of competency describes the skills and knowledge required to set up, operate, adjust and shut down a beer maturation process.

This unit applies to individuals who work under general supervision and exercise limited autonomy in a food processing environment. It typically applies to the production worker responsible for applying basic operating principles to the operation and monitoring of a beer maturation process and associated equipment.

All work must be carried out to comply with workplace procedures, in accordance with State/Territory work health and safety, food safety, and environmental regulations, legislation and standards that apply to the workplace.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

### Pre-requisite Unit

FBPOPR2011 Identify key stages and beer production equipment in a brewery

### Unit Sector

Operational (OPR)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare for work in processing area	1.1 Confirm maturation requirements according to production requirements 1.2 Confirm clarification requirements, including specifications for

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	any additions and agents 1.3 Confirm materials are available to meet production requirements 1.4 Confirm services as being ready for operation according to workplace procedures and safety and food safety requirements 1.5 Wear appropriate personal protective clothing and ensure correct fit
2. Prepare the maturation process for production	2.1 Check equipment to confirm readiness for use according to workplace procedures 2.2 Set the maturation process to meet production requirements 2.3 Carry out pre-start checks according to operator instructions
3. Operate and monitor beer maturation equipment	3.1 Start up, operate, and monitor equipment and control points for variation in operating conditions according to work health and safety and operating procedures 3.2 Confirm system and sub-system outputs meet specification 3.3 Identify, rectify and/or report out-of-specification product, process and equipment performance 3.4 Complete size and product changeovers in accordance with batch instructions 3.5 Record workplace information for the beer maturation process according to workplace procedures
4. Shut down the system	4.1 Shut down the system safely according to operating procedures 4.2 Clean and maintain equipment to meet the workplace cleaning schedule and procedural requirements 4.3 Collect, treat and dispose of or recycle waste generated by both the process and workplace cleaning procedures 4.4 Record workplace information according to workplace procedures

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"> <li>Interpret workplace and standard operating procedures relevant to job role</li> <li>Interpret production requirements</li> </ul>
Writing	<ul style="list-style-type: none"> <li>Record operating, routine maintenance and shutdown information on paper-based and electronic media</li> </ul>
Numeracy	<ul style="list-style-type: none"> <li>Monitor and interpret production and process control indicators and data</li> <li>Monitor supply and flow of materials to and from the process</li> </ul>
Navigate the world of work	<ul style="list-style-type: none"> <li>Apply workplace procedures to own role and responsibilities</li> <li>Identify skills, knowledge and experience required for performing own role in the workplace</li> <li>Ask questions to clarify understanding or seek further information</li> </ul>
Interact with others	<ul style="list-style-type: none"> <li>Communicate and report operational and safety information to relevant personnel</li> <li>Use modes of communication suitable to purpose to confirm understanding when conducting operational start-up and shutdown procedures</li> </ul>
Get the work done	<ul style="list-style-type: none"> <li>Access and interpret process control panels and system</li> <li>Maintain a clean and hazard-free work area</li> <li>Identify out-of-specification standards and maintain quality specifications</li> <li>Confirm equipment status and condition</li> <li>Interpret process and equipment information to monitor process and respond to abnormal performance and variations</li> </ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPOPR2016 Operate a beer maturation process	FDFOP2068A Operate a beer maturation process	Updated to meet Standards for Training Packages	Equivalent unit

## Links

Companion Volumes, including Implementation Guides, are available at VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>



## Assessment Requirements for FBPOPR2016 Operate a beer maturation process

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 1.0

### Performance Evidence

An individual demonstrating competency in this unit must satisfy all of the elements and performance criteria of this unit.

There must be evidence that the individual has set up, operated, adjusted and shut down a beer maturation process on at least one occasion, including:

- handling dangerous goods according to required procedures
- monitoring control points within the maturation process
- confirming equipment status, including:
  - checking that hygiene and sanitation standards are met
  - checking all safety guards are in place and equipment is operational
- operating equipment and controls to achieve specifications, including:
  - required temperature
  - required concentration of finings and other additions
  - transfers
  - disposal of sediment and other waste
- undertaking corrective action in the event of variation to specification
- identifying work health and safety hazards and implementing appropriate action
- selecting, fitting and using personal protective clothing and equipment
- identifying procedures and responsibilities for reporting and solving problems
- following environmental issues and controls
- shutting down the process and equipment and implementing cleaning requirements associated with changeovers
- using correct waste handling requirements and procedures
- recording production and other data according to procedures
- cleaning and sanitising equipment according to workplace procedures.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- purpose and principles of the beer maturation process
- relationship between the maturation process, the fermentation process and the filtration process
- stages and changes that occur during beer maturation
- requirements of maturation
- purpose of temperature control and cold storage in the beer maturation process
- purpose of protein absorbing agents
- purpose of oxygen scavenging agents
- purpose of tannin absorbing agents
- procedures for vessel transfer
- quality characteristics to be achieved
- process specifications, procedures and operating parameters
- significance and methods of monitoring control points within the maturation process
- beer maturation equipment and instrumentation components, purpose and operation
- common causes of variation and corrective action required
- work health and safety hazards and controls
- environmental issues and controls for process, including waste handling requirements and procedures
- recording requirements and procedures for the beer maturation process
- cleaning and sanitation procedures for a beer maturation process
- purpose of finings in a beer maturation process
- cask maturation process.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - a workplace or an environment that accurately represents workplace conditions
- resources, equipment and materials:
  - equipment, materials and services necessary to the maturation process
  - fermentation tank
  - additions and agents
  - supply and flow of materials to and from the process
  - waste sediment disposal
- specifications:
  - access to workplace information to identify production requirements and beer type for beer maturation process

- work procedures, including advice on safe work practices, food safety, quality and environmental requirements
- product/beer-type changeover processes
- reporting and documentation processes and requirements.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volumes, including Implementation Guides, are available at VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## FBPOPR2017 Operate a blending, sieving and bagging process

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 1.0

### Application

This unit of competency describes the skills and knowledge required to set up, operate, adjust and shut down a blending, sieving and bagging process.

This unit applies to individuals who work under general supervision and exercise limited autonomy blending and bagging of dry goods as bulk blends or for use in food service. This process is typically used for the blending and packaging of low-moisture products, including dry flavours and marinades, donut mix, cake mix, bakery ingredients, batters, cheese powders, spice mixes and herb blends.

All work must be carried out to comply with workplace procedures, in accordance with State/Territory work health and safety, and food safety, and environmental regulations, legislation and standards that apply to the workplace.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

### Pre-requisite Unit

Nil

### Unit Sector

Operational (OPR)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare for work in processing area	1.1 Read or listen to work instructions from supervisor and clarify where needed

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	<p>1.2 Identify work health and safety hazards and inform supervisor</p> <p>1.3 Wear appropriate personal protective equipment and ensure correct fit</p> <p>1.4 Confirm that materials are available according to operating requirements</p> <p>1.5 Identify and confirm workplace cleaning and maintenance requirements and status</p>
2. Prepare the blend, sieve and bagging equipment and process for operation	<p>2.1 Fit and adjust machine components and related attachments to meet safety and operating requirements</p> <p>2.2 Enter processing and operating parameters as required to meet safety and production requirements</p> <p>2.3 Load or position materials, ingredients, product and consumables according to operating requirements</p> <p>2.4 Carry out pre-start checks, adjusting equipment performance according to operator instructions</p>
3. Operate and monitor the blend, sieve and bagging process	<p>3.1 Deliver ingredients to the blender in the required quantities and sequence to meet recipe specifications according to workplace and food safety procedures</p> <p>3.2 Start, operate and monitor the process for variation in operating conditions according to workplace procedures, including safety requirements</p> <p>3.3 Monitor the process to confirm that ingredients are blended, sieved and bagged to meet specifications</p> <p>3.4 Identify, rectify and report out-of-specification equipment, product or process outcomes according to workplace requirements</p> <p>3.5 Follow and apply workplace cleaning and environmental working procedures</p>
4. Shut down the blend, sieve and bagging process	<p>4.1 Identify the appropriate shutdown procedure, and implement</p> <p>4.2 Identify and report routine maintenance requirements</p> <p>4.3 Maintain workplace records in required format</p>

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"> <li>Interpret information relevant to job role</li> </ul>
Writing	<ul style="list-style-type: none"> <li>Record operating, routine maintenance and shutdown information</li> </ul>
Numeracy	<ul style="list-style-type: none"> <li>Monitor and interpret production and process control indicators and data</li> </ul>
Navigate the world of work	<ul style="list-style-type: none"> <li>Apply workplace procedures to own role and responsibilities</li> </ul>
Interact with others	<ul style="list-style-type: none"> <li>Report operational and safety information in required format</li> <li>Use suitable modes of communication to confirm understanding when conducting operational start-up and shutdown procedures</li> </ul>
Get the work done	<ul style="list-style-type: none"> <li>Carry out tasks in correct sequence</li> <li>Respond to problems directly related to own role according to procedures</li> </ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPOPR2017 Operate a blending, sieving and bagging process	FDFOP2017A Operate a blending, sieving and bagging process	Updated to meet Standards for Training Packages	Equivalent unit

## Links

Companion Volumes, including Implementation Guides, are available at VETNet: - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## Assessment Requirements for FBPOPR2017 Operate a blending, sieving and bagging process

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 1.0

### Performance Evidence

An individual demonstrating competency in this unit must satisfy all of the elements and performance criteria of this unit.

There must be evidence that the individual has operated a blending, sieving and bagging process on at least one occasion, including:

- accessing workplace information to identify processing requirements
- selecting, fitting and using personal protective equipment
- confirming supply of necessary packaging components/consumables, materials and services
- conducting pre-start checks, including:
  - inspecting equipment condition to identify any signs of wear
  - selecting appropriate settings and/or related parameters
  - cancelling isolation or lock-outs as required
  - confirming that related equipment is clean and correctly configured for processing requirements
  - positioning sensors and controls correctly
  - ensuring scheduled maintenance has been completed and all safety guards are in place and operational
- starting, operating, monitoring and adjusting process equipment to achieve required outcomes, including monitoring control points and conducting inspections, as required, to confirm process remains within specification, including:
  - characteristics of blend
  - flow to sieves
  - sieve/screen condition
  - supply of packaging components/consumables
  - integrity of finished seals (stitching or thermal)
- monitoring and regulating the supply and flow of materials to and from the process
- taking corrective action in response to out-of-specification results

- responding to and/or reporting equipment failure within level of responsibility
- locating emergency stop functions on equipment
- following isolation and lock-out/tag-out procedures as required to take process and related equipment off-line in preparation for cleaning and/or maintenance within level of responsibility
- demonstrating batch/product changeovers
- completing workplace records as required
- maintaining work area to meet housekeeping standards
- cleaning and sanitising equipment according to enterprise procedures
- following relevant work health and safety procedures.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- purpose and basic principles of the process, including the method and sequence of ingredient addition required to achieve required blend characteristics
- the purpose of packaging and the properties required of packaging materials used, coding requirements, and related legal requirements, including product weight
- basic operating principles of equipment, including main equipment components, status and purpose of guards, equipment operating capacities and applications, and the purpose and location of sensors and related feedback instrumentation
- services required and action to take if services are not available
- the flow of this process and the effect of outputs on downstream processes
- quality characteristics required of process outputs, including packaging quality and seal integrity as required
- effect of variation in inputs, including ingredient quality/condition, packaging components/consumables and/or services, on process performance
- operating requirements and parameters, and corrective action required where operation is outside specified operating parameters
- typical equipment faults and related causes, including signs and symptoms of faulty equipment and early warning signs of potential problems, including sieve or screen damage
- methods used to monitor the process, including monitoring blend characteristics and weights
- inspection or test points (control points) in the process and the related procedures and recording requirements
- contamination/food safety risks associated with the process and related control measures, including product compatibility, cross-contamination risks and associated cleaning requirements
- common causes of variation and corrective action required, including procedures to manage the reprocessing (return to blend) of the first part of the blend to minimise non-conforming output
- work health and safety hazards and controls relevant to the blending, sieving and bagging process



- requirements of different shutdowns as appropriate to the process and workplace production/packaging requirements, including emergency and routine shutdowns, and procedures to follow in the event of a power outage
- isolation, lock-out and tag-out procedures and responsibilities
- procedures and responsibility for reporting production and performance information
- environmental issues and controls relevant to the process, including waste/rework collection and handling procedures related to the process
- basic operating principles of process control, where relevant, including the relationship between control panels and systems and the physical equipment
- cleaning and sanitation procedures for a blending, sieving and bagging process.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - a workplace or an environment that accurately represents workplace conditions
- resources, equipment and materials:
  - personal protective clothing and equipment
  - blending, sieving and bagging equipment and services
  - materials to be processed, and packaging components/consumables
  - sampling schedules and test procedures and equipment
  - cleaning procedures, materials and equipment
- specifications:
  - work procedures, including advice on safe work practices, food safety, quality and environmental requirements
  - information on equipment capacity and operating parameters
  - production schedule/batch instructions
  - specifications, control points and operating parameters
  - documentation and recording requirements and procedures.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volumes, including Implementation Guides, are available at VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## FBPOPR2018 Operate a case packing process

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 1.0

### Application

This unit of competency describes the skills and knowledge required to set up, operate, adjust and shut down a secondary packaging process used to form trays or boxes, load and position product, and seal the package.

This unit applies to individuals who work under general supervision and exercise limited autonomy in a food processing packing environment. It typically applies to the worker responsible for applying basic operating principles to the operation and monitoring of a case packing process and associated equipment. Case packers may be configured as side loading, wrap around, drop, or pick and place packers.

All work must be carried out to comply with workplace procedures, in accordance with State/Territory work health and safety, and food safety regulations, legislation and standards that apply to the workplace.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

### Pre-requisite Unit

Nil

### Unit Sector

Operational (OPR)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare the case	1.1 Read or listen to work instructions from supervisor and clarify

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
packing equipment and process for operation	<p>where needed</p> <p>1.2 Identify work health and safety hazards and tell supervisor</p> <p>1.3 Wear appropriate personal protective equipment (PPE) and ensure correct fit</p> <p>1.4 Confirm that packaged product and packaging components and consumables are available to meet production and food safety requirements</p> <p>1.5 Carry out pre-start checks on process and related equipment to confirm readiness for use according to workplace procedures</p> <p>1.6 Load or position packaging components and consumables according to workplace procedures and safety requirements</p> <p>1.7 Set parameters to meet safety and packaging requirements</p>
2. Operate and monitor the case packing process	<p>2.1 Start, operate and monitor the process for variation in operating conditions according to work health and safety and operating procedures</p> <p>2.2 Report any variation in equipment operation according to workplace procedures</p> <p>2.3 Monitor packaging quality and packaging appearance to confirm that specifications are met</p> <p>2.4 Identify, rectify and report out-of-specification process outcomes according to workplace requirements</p> <p>2.5 Follow and apply workplace cleaning and environmental procedures</p>
3. Shut down the case packing process	<p>3.1 Identify the appropriate shutdown procedure and implement safely according to operating procedures</p> <p>3.2 Identify and report maintenance requirements according to workplace procedures</p> <p>3.3 Maintain workplace records according to workplace procedures</p>

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"> <li>Interpret workplace and standard operating procedures relevant to job role</li> <li>Interpret production requirements</li> </ul>
Writing	<ul style="list-style-type: none"> <li>Record operating, routine maintenance and shutdown information on paper-based and electronic media</li> </ul>
Numeracy	<ul style="list-style-type: none"> <li>Monitor and interpret production and process control indicators and data</li> <li>Monitor supply and flow of materials to and from the process</li> </ul>
Navigate the world of work	<ul style="list-style-type: none"> <li>Apply workplace procedures to own role and responsibilities</li> <li>Identify skills, knowledge and experience required for performing own role in the workplace</li> <li>Ask questions to clarify understanding or seek further information</li> </ul>
Interact with others	<ul style="list-style-type: none"> <li>Communicate and report operational and safety information to relevant personnel</li> <li>Use modes of communication suitable to purpose to confirm understanding when conducting operational start-up and shutdown procedures</li> </ul>
Get the work done	<ul style="list-style-type: none"> <li>Access and interpret process control panels and system</li> <li>Maintain a clean and hazard-free work area</li> <li>Identify out-of-specification standards and maintain quality specifications</li> <li>Confirm equipment status and condition</li> <li>Interpret process and equipment information to monitor process and respond to abnormal performance and variations</li> </ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPOPR2018 Operate a case packing process	FDFOP2018A Operate a case packing process	Updated to meet Standards for Training Packages	Equivalent unit

## Links

Companion Volumes, including Implementation Guides, are available at VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>



# Assessment Requirements for FBPOPR2018 Operate a case packing process

## Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 1.0

## Performance Evidence

An individual demonstrating competency in this unit must satisfy all of the elements and performance criteria of this unit.

There must be evidence that the individual has operated a case packing process on at least one occasion, including:

- accessing workplace information to identify case packing requirements
- selecting, fitting and using PPE
- confirming supply of necessary packaging components/consumables, including boxes/cartons and related consumables
- inspecting the quality of packaging components/consumables to confirm that standards are met
- conducting pre-start checks, including:
  - inspecting equipment condition to identify any signs of wear
  - selecting appropriate settings and/or related parameters to suit product type
  - cancelling isolation or lock-outs as required
  - confirming that equipment is clean and correctly configured for packaging requirements
  - loading packaging components/consumables
  - positioning electronic eyes and sensors correctly
  - ensuring all safety guards are in place and operational
  - confirming coders are correctly set for date and product requirements
- starting, operating, monitoring and adjusting pick-and-place equipment to achieve required outcomes, including monitoring control points and conducting inspections, as required, to confirm process remains within specification:
  - box formation
  - alignment, placement and quantity of units packed
  - operation of suction cups
  - operation of related equipment (e.g. box closers and sealers)

- operation of ink jet coders to confirm correct code and clarity/legibility
- following procedures to reference or align equipment against set-up parameters
- monitoring flow of product to the process, and packaged goods from the process
- taking corrective action in response to out-of-specification results
- responding to and/or reporting equipment failure within level of responsibility
- locating emergency stop functions on equipment
- following isolation and lock-out/tag-out procedures as required to take case packing process and related equipment off-line in preparation for cleaning and/or maintenance within level of responsibility
- preparing equipment for cleaning
- completing workplace records as required
- maintaining work area to meet workplace cleaning standards
- using process control systems according to enterprise procedures
- cleaning and sanitising equipment according to enterprise procedures
- following relevant work health and safety procedures.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- purpose and basic principles of secondary packaging, including the requirements of packaging materials used and coding requirements
- basic operating principles of case packing equipment, including main equipment components, status and purpose of guards, purpose and location of electronic eyes and sensors, equipment operating capacities and applications, and services required for operation of case packers used in the workplace
- the flow of product to this stage in the packing process and the effect of outputs on downstream processes
- quality characteristics and requirements of outer packaging materials and of the packaged product, including board quality and finished packaged product specifications
- methods used to monitor the process, including visual inspection of the process and of the quality of the packaged product
- inspection or test points (control points) in the process and the related procedures and recording requirements, and testing gluing or sealing of packages where required
- operating requirements and parameters and corrective action required where operation is outside specified operating parameters, including restart procedures following a crash or jam-up
- typical equipment faults and related causes, including signs and symptoms of faulty equipment and early warning signs of potential problems
- common causes of variation and corrective action required, including the effect of variation in packaging components/consumables on performance
- contamination/food safety hazards and risks associated with this stage in the packaging process and related control measures
- work health and safety hazards and controls for operating a case packing process

- requirements of different shutdowns as appropriate to the process and workplace production requirements, including emergency and routine shutdowns, and procedures to follow in the event of a power outage
- isolation, lock-out and tag-out procedures and responsibilities
- procedures and responsibility for reporting production and performance information
- environmental issues and controls relevant to the packaging process, including waste collection and handling procedures related to the process
- basic operating principles of process control, where relevant, including the relationship between control panels and systems and the physical equipment
- cleaning and sanitation procedures for operating a case packing process.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - a workplace or an environment that accurately represents workplace conditions
- resources, equipment and materials:
  - personal protective clothing and equipment
  - automated case packers and related equipment and services
  - product to be packaged, and board and related consumables
  - documentation
  - cleaning procedures, materials and equipment
- specifications:
  - work procedures, including advice on safe work practices, food safety, quality and environmental requirements, stock flow systems and production/packaging schedules
  - information on equipment capacity and operating parameters
  - specifications, control points and operating parameters
  - recording requirements and procedures.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volumes, including Implementation Guides, are available at VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>



## FBPOPR2019 Fill and close product in cans

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 1.0

### Application

This unit of competency describes the skills and knowledge required to set up, operate, adjust and shut down a primary packaging process that fills product into cans and hermetically seals containers using a closer or seamer.

This unit applies to individuals who work under general supervision and exercise limited autonomy in a food processing packing environment. It typically applies to the production worker responsible for applying basic operating principles to the operation and monitoring of a filling and closing process and associated equipment.

All work must be carried out to comply with workplace procedures, in accordance with State/Territory work health and safety, and food safety regulations, legislation and standards that apply to the workplace.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

### Pre-requisite Unit

Nil

### Unit Sector

Operational (OPR)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare for work in processing area	1.1 Read or listen to work instructions from supervisor and clarify where needed

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	<p>1.2 Identify work health and safety hazards and tell supervisor</p> <p>1.3 Wear appropriate personal protective equipment and ensure correct fit</p> <p>1.4 Confirm that materials and packaging components and consumables are available to meet operating and food safety requirements</p> <p>1.5 Identify and confirm workplace cleaning and maintenance requirements</p>
2. Prepare the filling and closing process for operation	<p>2.1 Fit and adjust machine components and related attachments according to work health and safety and operating requirements</p> <p>2.2 Enter operating parameters to meet safety and production requirements</p> <p>2.3 Carry out pre-start checks, adjusting equipment performance according to operator instructions</p>
3. Operate and monitor the filling process	<p>3.1 Start, operate and monitor the process for variation in operating conditions according to work health and safety and operating procedures</p> <p>3.2 Monitor the process to confirm that filled and closed containers meet specifications</p> <p>3.3 Identify, rectify and report out-of-specification equipment, product and process outcomes according to workplace requirements</p> <p>3.4 Follow and apply workplace cleaning and environmental procedures</p>
4. Monitor closure and seaming stage	<p>4.1 Monitor the closing stage to confirm that closures and seams meet specifications</p> <p>4.2 Identify and report out-of-specification process outcomes according to workplace procedures</p>
5. Shut down the filling and closing process	<p>5.1 Identify the appropriate shutdown procedure and implement safely according to operating procedures</p> <p>5.2 Report maintenance requirements according to workplace procedures</p> <p>5.3 Maintain workplace records according to workplace procedures</p>

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"> <li>Interpret workplace and standard operating procedures relevant to job role</li> <li>Interpret production requirements</li> </ul>
Writing	<ul style="list-style-type: none"> <li>Record operating, routine maintenance and shutdown information on paper-based and electronic media</li> </ul>
Numeracy	<ul style="list-style-type: none"> <li>Monitor and interpret production and process control indicators and data</li> <li>Monitor supply and flow of materials to and from the process</li> </ul>
Navigate the world of work	<ul style="list-style-type: none"> <li>Apply workplace procedures to own role and responsibilities</li> <li>Identify skills, knowledge and experience required for performing own role in the workplace</li> <li>Ask questions to clarify understanding or seek further information</li> </ul>
Interact with others	<ul style="list-style-type: none"> <li>Communicate and report operational and safety information to relevant personnel</li> <li>Use modes of communication suitable to purpose to confirm understanding when conducting operational start-up and shutdown procedures</li> </ul>
Get the work done	<ul style="list-style-type: none"> <li>Access and interpret process control panels and system</li> <li>Maintain a clean and hazard-free work area</li> <li>Identify out-of-specification standards and maintain quality specifications</li> <li>Confirm equipment status and condition</li> <li>Interpret process and equipment information to monitor process and respond to abnormal performance and variations</li> </ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPOPR2019 Fill and close product in cans	FDFOP2019A Fill and close product in cans	Updated to meet Standards for Training Packages	Equivalent unit

## Links

Companion Volumes, including Implementation Guides, are available at VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## Assessment Requirements for FBPOPR2019 Fill and close product in cans

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 1.0

### Performance Evidence

An individual demonstrating competency in this unit must satisfy all of the elements and performance criteria of this unit.

There must be evidence that the individual has filled and closed product in cans on at least one occasion, including:

- accessing workplace information to identify processing requirements
- selecting, fitting and using PPE
- confirming supply of necessary materials and services for filling and closing product in cans
- preparing/conditioning product for filling in cans
- conducting pre-start checks, including:
  - inspecting equipment condition to identify any signs of wear
  - selecting appropriate settings and/or related parameters to suit filling requirements
  - cancelling isolation or lock-outs as required
  - confirming that equipment is clean and correctly configured for filling and seaming requirements
  - positioning sensors and controls correctly
  - ensuring any scheduled maintenance has been completed
  - confirming that all safety guards are in place and operational
- starting, operating, monitoring and adjusting the filling process and equipment to achieve required outcomes, including monitoring control points, and conducting inspections, as required, to confirm process remains within specification, including:
  - fill temperatures
  - headspace
  - vacuum
  - visual appearance of the product
  - line speed/throughput
- monitoring supply and flow of materials to and from the process

- starting, monitoring and adjusting the closer to confirm alignment and formation of the seam
- monitoring control points and conducting inspections related to the seaming/closing process, and confirming that coding is correct
- taking corrective action in response to out-of-specification results
- responding to and/or reporting equipment failure within level of responsibility
- locating emergency stop functions on equipment
- following isolation and lock-out/tag-out procedures as required to take process and related equipment off-line in preparation for cleaning and/or maintenance within level of responsibility
- completing workplace records as required
- conducting shift handover procedures
- maintaining work area to meet workplace cleaning standards
- using process control systems according to enterprise procedures
- inspecting seams according to enterprise procedures
- cleaning and sanitising equipment according to enterprise procedures
- following relevant work health and safety procedures.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- purpose and basic principles of filling and closing, including the properties and requirements of packaging materials used, hermetic sealing and properties of containers used for this purpose, coding requirements and related legal requirements, including product weight
- the flow of this process and the effect of the filling and seaming process on downstream processes
- basic operating principles of equipment, including main equipment components, status and purpose of guards, equipment operating capacities and applications, and the purpose and location of sensors and related feedback instrumentation
- quality characteristics of the filled and closed container, including seam components and integrity requirements within level of responsibility for inspection
- effect of raw material characteristics on filling and seaming
- quality parameters for cans and ends
- methods used to prepare product for filling
- effect of process variables, including headspace, fill temperature and vacuum, on the process
- operating requirements and parameters, and corrective action required where operation is outside specified operating parameters, including restart procedures following a crash or jam-up
- typical equipment faults and related causes, including signs and symptoms of faulty equipment and early warning signs of potential problems

- techniques used to monitor the production/packing process, including inspecting, measuring and testing as required by the process
- inspection or test points (control points) in the process and the related procedures and recording requirements
- contamination/food safety issues associated with filling and seaming, and related control measures
- common causes of variation and corrective action required
- work health and safety hazards and controls
- requirements of different shutdowns as appropriate to the process and workplace production requirements, including emergency and routine shutdowns, and procedures to follow in the event of a power outage
- isolation, lock-out and tag-out procedures and responsibilities
- procedures and responsibility for reporting production and performance information
- environmental issues and controls relevant to the process, including waste collection and handling procedures related to the process
- basic operating principles of process control, where relevant, including the relationship between control panels and systems and the physical equipment
- cleaning and sanitation procedures for filling and closing product in cans.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - a workplace or an environment that accurately represents workplace conditions
- resources, equipment and materials:
  - personal protective clothing and equipment
  - filling and closing and related equipment and services
  - materials to be filled as required
  - packaging components/consumables
  - sampling schedules and test procedures and equipment as required
  - cleaning procedures, materials and equipment as required
  - documentation
- specifications:
  - work procedures, including advice on safe work practices, food safety, quality and environmental requirements
  - production schedule
  - information on equipment capacity and operating parameters
  - specifications, control points and operating parameters
  - recording requirements and procedures.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volumes, including Implementation Guides, are available at VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>



## FBPOPR2020 Operate a form, fill and seal process

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 1.0

### Application

This unit of competency describes the skills and knowledge required to set up, operate, adjust and shut down a form, fill and seal process.

This unit applies to individuals who work under general supervision and exercise limited autonomy in a food processing packing environment. It typically applies to the worker responsible for applying basic operating principles to the operation and monitoring of a forming, filling and sealing process and associated equipment. This is a primary packaging process to package product into appropriate packaging. It can apply to both aseptic and non-aseptic form and fill processes.

All work must be carried out to comply with workplace procedures, in accordance with State/Territory work health and safety, and food safety regulations, legislation and standards that apply to the workplace.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

### Pre-requisite Unit

Nil

### Unit Sector

Operational (OPR)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare for work in	1.1 Read or listen to work instructions from supervisor and clarify

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
processing area	<p>where needed</p> <p>1.2 Identify work health and safety hazards and tell supervisor</p> <p>1.3 Wear appropriate personal protective equipment and ensure correct fit</p> <p>1.4 Confirm that materials and packaging components and consumables are available to meet operating and food safety requirements</p> <p>1.5 Identify and confirm workplace cleaning and maintenance requirements and status</p>
2. Prepare the forming, filling and sealing equipment and process for operation	<p>2.1 Fit and adjust machine components and related attachments to meet safety and operating requirements</p> <p>2.2 Enter operating parameters to meet safety and production requirements</p> <p>2.3 Carry out pre-start checks, adjusting equipment performance according to operating procedures</p>
3. Operate and monitor the forming, filling and sealing process	<p>3.1 Start, operate and monitor the process for variation in operating conditions according to work health and safety and operating procedures</p> <p>3.2 Monitor packaging quality and seal integrity in operating conditions</p> <p>3.3 Identify, rectify and report out-of-specification equipment, product or process outcomes according to workplace requirements</p> <p>3.4 Follow and apply workplace cleaning and environmental procedures</p>
4. Shut down the forming, filling and sealing process	<p>4.1 Identify the appropriate shutdown procedure and implement</p> <p>4.2 Report routine maintenance requirements according to workplace procedures</p> <p>4.3 Maintain workplace records according to workplace procedures</p>

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"> <li>Interpret workplace and standard operating procedures relevant to job role</li> <li>Interpret production requirements</li> </ul>
Writing	<ul style="list-style-type: none"> <li>Record operating, routine maintenance and shutdown information on paper-based and electronic media</li> </ul>
Numeracy	<ul style="list-style-type: none"> <li>Monitor and interpret production and process control indicators and data</li> <li>Monitor supply and flow of materials to and from the process</li> </ul>
Navigate the world of work	<ul style="list-style-type: none"> <li>Apply workplace procedures to own role and responsibilities</li> <li>Identify skills, knowledge and experience required for performing own role in the workplace</li> <li>Ask questions to clarify understanding or seek further information</li> </ul>
Interact with others	<ul style="list-style-type: none"> <li>Communicate and report operational and safety information to relevant personnel</li> <li>Use modes of communication suitable to purpose to confirm understanding when conducting operational start-up and shutdown procedures</li> </ul>
Get the work done	<ul style="list-style-type: none"> <li>Access and interpret process control panels and system</li> <li>Maintain a clean and hazard-free work area</li> <li>Identify out-of-specification standards and maintain quality specifications</li> <li>Confirm equipment status and condition</li> <li>Interpret process and equipment information to monitor process and respond to abnormal performance and variations</li> </ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPOPR2020 Operate a form, fill and seal process	FDFOP2020A Operate a form, fill and seal process	Updated to meet Standards for Training Packages	Equivalent unit

## Links

Companion Volumes, including Implementation Guides, are available at VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# Assessment Requirements for FBPOPR2020 Operate a form, fill and seal process

## Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 1.0

## Performance Evidence

An individual demonstrating competency in this unit must satisfy all of the elements and performance criteria of this unit.

There must be evidence that the individual has operated a form, fill and seal process on at least one occasion, including:

- accessing workplace information to identify processing requirements
- selecting, fitting and using PPE
- confirming supply of necessary packaging components/consumables and product
- conducting pre-start checks, including:
  - inspecting equipment condition to identify any signs of wear
  - selecting appropriate settings and/or related parameters
  - cancelling isolation or lock-outs as required
  - confirming that equipment is clean and correctly configured for packaging requirements
  - loading packaging components/consumables
  - positioning sensors and controls correctly
  - ensuring any scheduled maintenance has been completed
  - confirming that all safety guards are in place and operational
- starting, operating, monitoring and adjusting the forming, filling and sealing process equipment to achieve required outcomes, including monitoring control points and conducting inspections as required to confirm process remains within specification, including:
  - formation of container/packaging
  - flow rates
  - product weights and volumes
  - fill levels
  - temperature, including product and sealing temperatures
  - supply of packaging components/consumables

- packaging quality and seal integrity, including testing packaging integrity
- monitoring supply and flow of materials to and from the form, fill and seal process
- taking corrective action in response to out-of-specification results
- responding to and/or reporting equipment failure within level of responsibility
- locating emergency stop functions on equipment
- following isolation and lock-out/tag-out procedures as required to take forming, filling and sealing process and related equipment off-line in preparation for cleaning and/or maintenance within level of responsibility
- preparing forming, filling and sealing equipment for cleaning
- completing workplace records as required
- maintaining work area to meet workplace cleaning standards
- using process control systems according to enterprise procedures
- following relevant work health and safety procedures.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- purpose and basic principles of forming, filling and sealing, including:
  - the purpose and characteristics required of packaging materials used
  - the methods used to form packaging, fill and seal product (where methods involve vacuum or map packaging, it includes an understanding of the effect of modified atmosphere on product shelf-life)
- product and packaging coding requirements and related legal requirements, including product weight
- basic operating principles of forming, filling and sealing equipment, including:
  - main equipment components
  - status and purpose of guards
  - equipment operating capacities and applications
  - the purpose and location of sensors and related feedback instrumentation
  - services required for operation of form, fill and seal equipment used in the workplace
- the flow of processes supplying the forming, filling and sealing process and the effect of process output on downstream processes
- quality characteristics and requirements of forming, filling and sealing, including:
  - quality requirements of product and packaging components/consumables
  - requirements of packaging forming stage, and filling, including fill levels and weights
  - requirements of seal formation and integrity, and integrity testing procedures, where required
- methods used to monitor the process, including inspecting, measuring and testing as required by the process
- inspection or test points (control points) in the process and the related procedures and recording requirements

- operating requirements and parameters and corrective action required where operation is outside specified operating parameters, including restart procedures following a crash or jam-up
- typical equipment faults and related causes, including signs and symptoms of faulty equipment and early warning signs of potential problems
- common causes of variation and corrective action required, including the effect of variation in both product characteristics and packaging components/consumables on forming, filling and sealing performance
- food safety hazards and risks associated with forming, filling and sealing, and related control measures
- work health and safety hazards and controls relevant to the form, fill and seal process
- requirements of different shutdowns as appropriate to the process and workplace production requirements, including emergency and routine shutdowns, and procedures to follow in the event of a power outage
- isolation, lock-out and tag-out procedures and responsibilities
- procedures and responsibility for reporting production and performance information
- environmental issues and controls relevant to the forming, filling and sealing process, including waste/rework collection and handling procedures related to the process
- basic operating principles of process control, including the relationship between control panels and systems and the physical equipment
- aseptic container preparation/forming, filling and sealing requirements
- cleaning and sanitation procedures for a form, fill and seal process.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - a workplace or an environment that accurately represents workplace conditions
- resources, equipment and materials:
  - personal protective clothing and equipment
  - forming, filling and sealing process and related equipment and services
  - materials and packaging components/consumables to be formed, filled and sealed
  - product
  - sampling schedules and test procedures and equipment as required
  - documentation
  - cleaning procedures, materials and equipment as required
- specifications:
  - work procedures, including advice on safe work practices, food safety, quality and environmental requirements, stock flow systems, production/packaging schedules
  - information on equipment capacity and operating parameters
  - specifications, control points and operating parameters
  - recording requirements and procedures.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volumes, including Implementation Guides, are available at VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>



## FBPOPR2021 Operate a fill and seal process

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 1.0

### Application

This unit of competency describes the skills and knowledge required to set up, operate, adjust and shut down a fill and seal process.

This unit applies to individuals who work under general supervision and exercise limited autonomy in a food processing packing environment. It typically applies to the worker responsible for applying basic operating principles to the operation and monitoring of a filling and sealing process and associated equipment. This is a primary packaging process to fill product into packaging, including bottles, boxes, drums, bladders and pails. It can apply to both aseptic and non-aseptic filling and sealing processes.

All work must be carried out to comply with workplace procedures, in accordance with State/Territory work health and safety, and food safety regulations, legislation and standards that apply to the workplace.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

### Pre-requisite Unit

Nil

### Unit Sector

Operational (OPR)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare for work in	1.1 Read or listen to work instructions from supervisor and clarify

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
processing area	<p>where needed</p> <p>1.2 Identify work health and safety hazards and tell supervisor</p> <p>1.3 Wear appropriate personal protective equipment and ensure correct fit</p> <p>1.4 Confirm that materials and packaging components and consumables are available to meet food safety and operating requirements</p> <p>1.5 Identify and confirm cleaning and maintenance requirements and status</p>
2. Prepare the filling and sealing equipment and process for operation	<p>2.1 Fit machine and adjust machine components and related attachments to meet safety and operating requirements</p> <p>2.2 Enter operating parameters as required to meet safety and production requirements</p> <p>2.3 Carry out pre-start checks, adjusting equipment performance according to work health and safety and operating procedures</p>
3. Operate and monitor the filling and sealing process	<p>3.1 Start, operate and monitor the process for variation in operating conditions</p> <p>3.2 Monitor packaging quality and seal integrity to meet safety and production requirements</p> <p>3.3 Identify, rectify and report out-of-specification equipment, product or process outcomes according to workplace requirements</p> <p>3.4 Follow and apply workplace cleaning and environmental procedures</p>
4. Shut down the filling and sealing process	<p>4.1 Identify the appropriate shutdown procedure and implement</p> <p>4.2 Report maintenance requirements according to workplace procedures</p> <p>4.3 Maintain workplace records according to workplace procedures</p>

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"> <li>Interpret workplace and standard operating procedures relevant to job role</li> <li>Interpret production requirements</li> </ul>
Writing	<ul style="list-style-type: none"> <li>Record operating, routine maintenance and shutdown information on paper-based and electronic media</li> </ul>
Numeracy	<ul style="list-style-type: none"> <li>Monitor and interpret production and process control indicators and data</li> <li>Monitor supply and flow of materials to and from the process</li> </ul>
Navigate the world of work	<ul style="list-style-type: none"> <li>Apply workplace procedures to own role and responsibilities</li> <li>Identify skills, knowledge and experience required for performing own role in the workplace</li> <li>Ask questions to clarify understanding or seek further information</li> </ul>
Interact with others	<ul style="list-style-type: none"> <li>Communicate and report operational and safety information to relevant personnel</li> <li>Use modes of communication suitable to purpose to confirm understanding when conducting operational start-up and shutdown procedures</li> </ul>
Get the work done	<ul style="list-style-type: none"> <li>Access and interpret process control panels and system</li> <li>Maintain a clean and hazard-free work area</li> <li>Identify out-of-specification standards and maintain quality specifications</li> <li>Confirm equipment status and condition</li> <li>Interpret process and equipment information to monitor process and respond to abnormal performance and variations</li> </ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPOPR2021 Operate a fill and seal process	FDFOP2021A Operate a fill and seal process	Updated to meet Standards for Training Packages	Equivalent unit

## Links

Companion Volumes, including Implementation Guides, are available at VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>



# Assessment Requirements for FBPOPR2021 Operate a fill and seal process

## Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 1.0

## Performance Evidence

An individual demonstrating competency in this unit must satisfy all of the elements and performance criteria of this unit.

There must be evidence that the individual has operated a fill and seal process on at least one occasion, including:

- accessing workplace information to identify filling and packaging requirements
- selecting, fitting and using PPE
- confirming supply of necessary packaging components/consumables, product and services
- conducting pre-start checks, including:
  - inspecting equipment condition to identify any signs of wear
  - selecting appropriate settings and/or related parameters
  - cancelling isolation or lock-outs as required
  - confirming that equipment is clean and correctly configured for packaging requirements
  - loading packaging components/consumables
  - positioning sensors and controls correctly
  - ensuring any scheduled maintenance has been completed
  - confirming that all safety guards are in place and operational
- starting, operating, monitoring and adjusting the filling and sealing process equipment to achieve required outcomes, including monitoring control points and conducting inspections as required to confirm process remains within specification, including:
  - flow rates
  - product weights and volumes
  - fill levels
  - times and temperatures, including product and sealing temperatures
  - supply of packaging components/consumables
  - packaging quality and seal integrity, including testing seal integrity
- taking corrective action in response to out-of-specification results

- responding to and/or reporting equipment failure within level of responsibility
- locating emergency stop functions on equipment
- following isolation and lock-out/tag-out procedures as required to take filling and sealing process and related equipment off-line in preparation for cleaning and/or maintenance within level of responsibility
- preparing filling and sealing equipment for cleaning
- completing workplace records as required
- maintaining work area to meet housekeeping standards
- using process control systems according to enterprise procedures
- cleaning and sanitising equipment according to enterprise procedures
- following relevant work health and safety procedures.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- purpose and basic principles of filling and sealing, including the purpose and characteristics required of packaging materials used and the method used to fill and seal product (where methods involve vacuum or map packaging, it includes an understanding of the effect of modified atmosphere on product shelf-life)
- product and packaging coding requirements and related legal requirements, including product weight
- basic operating principles of filling and sealing equipment, including:
  - main equipment components
  - status and purpose of guards
  - equipment operating capacities and applications
  - the purpose and location of sensors and related feedback instrumentation
  - services required for operation of filling equipment used in the workplace
- the flow of processes supplying the filling and sealing process and the effect of outputs on downstream processes
- quality characteristics and requirements of filling and sealing, including:
  - quality requirements of product and packaging components/consumables
  - requirements of filling, including fill levels and weights
  - requirements of seal formation and integrity, and integrity testing procedures, where required
- methods used to monitor the process, including inspecting, measuring and testing as required by the process
- inspection or test points (control points) in the process and the related procedures and recording requirements
- operating requirements and parameters and corrective action required where operation is outside specified operating parameters, including procedures to clear a breach and restart following a crash or jam-up, as appropriate

- typical equipment faults and related causes, including signs and symptoms of faulty equipment and early warning signs of potential problems
- common causes of variation and corrective action required, including the effect of variation in both product and packaging components/consumables on filling and sealing performance, which also includes the effect of temperature variation on the filling process
- food safety hazards and risks associated with filling and sealing, and related control measures
- work health and safety hazards and controls requirements, including emergency and routine shutdowns, and procedures to follow in the event of a power outage
- isolation, lock-out and tag-out procedures and responsibilities
- procedures and responsibility for reporting production and performance information
- environmental issues and controls relevant to the filling and sealing process, including waste/rework collection and handling procedures related to the process
- basic operating principles of process control, including the relationship between control panels and systems and the physical equipment
- aseptic filling and sealing requirements
- cleaning and sanitation procedures for the filling and sealing process.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - a workplace or an environment that accurately represents workplace conditions
- resources, equipment and materials:
  - personal protective clothing and equipment
  - filling and sealing process and related equipment and services
  - materials and packaging components/consumables to be formed and filled
  - product
  - sampling schedules and test procedures and equipment as required
  - documentation
  - cleaning procedures, materials and equipment
- specifications:
  - work procedures, including advice on safe work practices, food safety, quality and environmental requirements, stock flow systems and production/packaging schedules
  - information on equipment capacity and operating parameters
  - specifications, control points and operating parameters
  - recording requirements and procedures.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volumes, including Implementation Guides, are available at VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>



## FBPOPR2022 Operate a high speed wrapping process

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 1.0

### Application

This unit of competency describes the skills and knowledge required to set up, operate, adjust and shut down a primary packaging process using high speed wrapping equipment to enclose product in a sealed, airtight film or cello package.

This unit applies to individuals who work under general supervision and exercise limited autonomy in a food processing packing environment. It typically applies to the worker responsible for applying basic operating principles to the operation and monitoring of a high speed wrapping process and associated equipment.

All work must be carried out to comply with workplace procedures, in accordance with State/Territory work health and safety, and food safety regulations, legislation and standards that apply to the workplace.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

### Pre-requisite Unit

Nil

### Unit Sector

Operational (OPR)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare for work in processing area	1.1 Read or listen to work instructions from supervisor and clarify where needed

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	1.2 Identify work health and safety hazards and tell supervisor 1.3 Wear appropriate personal protective equipment and ensure correct fit 1.4 Confirm that materials and packaging components and consumables are available to meet food safety and production requirements
2. Prepare the wrapping equipment and process for operation	2.1 Carry out pre-start checks on process and related equipment to confirm readiness for use 2.2 Load and position packaging components and consumables according to operating procedures 2.3 Set parameters to meet safety and packaging requirements
3. Operate and monitor the wrapping process	3.1 Start, operate and monitor the process for variation in operating conditions 3.2 Monitor packaging quality and seal integrity to confirm that specifications are met 3.3 Identify, rectify and report out-of-specification equipment, product or process outcomes according to workplace requirements 3.4 Follow and apply workplace cleaning and environmental procedures
4. Shut down the wrapping process	4.1 Identify the appropriate shutdown procedure and implement 4.2 Report maintenance requirements according to workplace procedures 4.3 Maintain workplace records according to workplace procedures

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"> <li>Interpret workplace and standard operating procedures relevant to job role</li> </ul>

Skill	Description
	<ul style="list-style-type: none"> <li>Interpret production requirements</li> </ul>
Writing	<ul style="list-style-type: none"> <li>Record operating, routine maintenance and shutdown information on paper-based and electronic media</li> </ul>
Numeracy	<ul style="list-style-type: none"> <li>Monitor and interpret production and process control indicators and data</li> <li>Monitor supply and flow of materials to and from the process</li> </ul>
Navigate the world of work	<ul style="list-style-type: none"> <li>Apply workplace procedures to own role and responsibilities</li> <li>Identify skills, knowledge and experience required for performing own role in the workplace</li> <li>Ask questions to clarify understanding or seek further information</li> </ul>
Interact with others	<ul style="list-style-type: none"> <li>Communicate and report operational and safety information to relevant personnel</li> <li>Use modes of communication suitable to purpose to confirm understanding when conducting operational start-up and shutdown procedures</li> </ul>
Get the work done	<ul style="list-style-type: none"> <li>Access and interpret process control panels and system</li> <li>Maintain a clean and hazard-free work area</li> <li>Identify out-of-specification standards and maintain quality specifications</li> <li>Confirm equipment status and condition</li> <li>Interpret process and equipment information to monitor process and respond to abnormal performance and variations</li> </ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPOPR2022 Operate a high speed wrapping process	FDFOP2022A Operate a high speed wrapping process	Updated to meet Standards for Training Packages	Equivalent unit

## Links

Companion Volumes, including Implementation Guides, are available at VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## Assessment Requirements for FBPOPR2022 Operate a high speed wrapping process

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 1.0

### Performance Evidence

An individual demonstrating competency in this unit must satisfy all of the elements and performance criteria of this unit.

There must be evidence that the individual has operated a high speed wrapping process on at least one occasion, including:

- accessing workplace information to identify wrapping requirements
- selecting, fitting and using personal protective equipment
- confirming supply of necessary packaging materials/film/cello and product, including inspecting the quality of both product and wrapping material to confirm that standards are met
- conducting pre-start checks, including:
  - inspecting equipment and conveyor belt condition to identify any signs of wear
  - selecting appropriate settings and/or related parameters to suit product type
  - cancelling isolation or lock-outs as required
  - confirming that equipment is clean and correctly configured for packaging requirements
  - loading/threading packaging components/consumables
  - positioning electronic eyes and sensors correctly
  - ensuring all safety guards are in place and operational
  - confirming coders are correctly set for date and product requirements
- starting, operating, monitoring and adjusting wrapping equipment to achieve required outcomes, including monitoring control points and conducting inspections as required to confirm process remains within specification, including:
  - product alignment
  - product weights
  - packaging quality
  - packaging and product alignment
  - seal integrity, including testing packaging integrity

- codes, correct content and clarity/legibility
- monitoring flow of product to and from the process
- taking corrective action in response to out-of-specification results
- responding to and/or reporting equipment failure within level of responsibility
- locating emergency stop functions on equipment
- following isolation and lock-out/tag-out procedures as required to take high speed wrapping process and related equipment off-line in preparation for cleaning and/or maintenance within level of responsibility
- preparing wrapping equipment and conveyors for cleaning
- completing workplace records as required
- maintaining work area to meet housekeeping standards
- using process control systems according to enterprise procedures
- cleaning and sanitising equipment according to enterprise procedures
- following relevant work health and safety procedures.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- purpose and basic principles of wrapping, including the properties and requirements of packaging materials used, coding requirements and related legal requirements (for example, product weight)
- basic operating principles of wrapping equipment, including:
  - main equipment components (for example, conveyors and related guides and alignment adjustments)
  - purpose and location of electronic eyes and sensors
  - status and purpose of guards
  - equipment operating capacities and applications, and services required for operation of wrapping equipment used in the workplace
- the flow of product to the wrapping process and the effect of outputs on downstream processes
- quality characteristics and requirements of product to be wrapped, wrapping materials and the final wrapped product
- methods used to monitor the process, including inspecting, measuring and testing as required by the process
- inspection or test points (control points) in the process and the related procedures and recording requirements
- operating requirements and parameters and corrective action required where operation is outside specified operating parameters
- typical equipment faults and related causes, including signs and symptoms of faulty equipment and early warning signs of potential problems
- common causes of variation and corrective action required, including the effect of variation in both product and packaging components/consumables on performance

- contamination/food safety hazards and risks associated with the wrapping process and related control measures
- work health and safety hazards and controls relevant to the high speed wrapping process
- requirements of different shutdowns as appropriate to the process and workplace production requirements, including emergency and routine shutdowns, and procedures to follow in the event of a power outage
- isolation, lock-out and tag-out procedures and responsibilities
- procedures and responsibility for reporting production and performance information
- environmental issues and controls relevant to the filling and wrapping process, including waste/rework collection and handling procedures related to the process
- basic operating principles of process control, including the relationship between control panels and systems and the physical equipment
- cleaning and sanitation procedures for a high speed wrapping process.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - a workplace or an environment that accurately represents workplace conditions
- resources, equipment and materials:
  - personal protective clothing and equipment
  - high speed wrapping machine and related equipment and services
  - materials to be wrapped, cello/film and other packaging components/consumables
  - documentation
  - cleaning procedures, materials and equipment
- specifications:
  - work procedures, including advice on safe work practices, food safety, quality and environmental requirements, stock flow systems and production/packaging schedules
  - information on equipment capacity and operating parameters
  - specifications, control points and operating parameters
  - recording requirements and procedures.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volumes, including Implementation Guides, are available at VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## FBPOPR2023 Operate a packaging process

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 1.0

### Application

This unit of competency describes the skills and knowledge required to set up, operate, adjust and shut down a packaging process or sub-system.

This unit applies to individuals who operate and monitor a packaging process and associated equipment in a food processing packaging environment. The unit applies in a food processing packaging environment where no other specific packaging unit is available.

A packaging process may relate to primary and secondary packaging activities. It typically requires the operation of a series of related items of equipment to achieve the required outcome.

All work must be carried out to comply with workplace procedures, in accordance with State/Territory work health and safety, and food safety regulations, legislation and standards that apply to the workplace.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

### Pre-requisite Unit

Nil

### Unit Sector

Operational (OPR)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare for work in	1.1 Read or listen to work instructions from supervisor and clarify

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
processing area	<p>where needed</p> <p>1.2 Identify work health and safety hazards and tell supervisor</p> <p>1.3 Wear appropriate personal protective equipment (PPE) and ensure correct fit</p> <p>1.4 Confirm that packaging components and consumables, materials and items to be packaged are available to meet operating requirements</p> <p>1.5 Identify and confirm cleaning and maintenance requirements and status according to workplace procedures</p>
2. Prepare the equipment and process for operation	<p>2.1 Fit and adjust machine components and related attachments</p> <p>2.2 Enter operating parameters to meet safety and production requirements</p> <p>2.3 Load or position materials, product and packaging components and consumables according to food safety and operating requirements</p> <p>2.4 Check and adjust equipment performance according to operating and job requirements</p> <p>2.5 Carry out pre-start checks according to operator instructions</p>
3. Operate and monitor the process	<p>3.1 Start, operate and monitor the process for variation in operating conditions according to work health and safety and operating procedures</p> <p>3.2 Monitor the process to confirm that specifications are met</p> <p>3.3 Identify, rectify and report out-of-specification equipment, product or process outcomes according to workplace requirements</p>
4. Shut down the process	<p>4.1 Identify the appropriate shutdown procedure</p> <p>4.2 Shut the process down safely according to operating procedures</p> <p>4.3 Report maintenance requirements according to workplace procedures</p> <p>4.4 Maintain workplace records according to workplace procedures</p>



## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"> <li>Interpret workplace and standard operating procedures relevant to job role</li> <li>Interpret production requirements</li> </ul>
Writing	<ul style="list-style-type: none"> <li>Record operating, routine maintenance and shutdown information on paper-based and electronic media</li> </ul>
Numeracy	<ul style="list-style-type: none"> <li>Monitor and interpret production and process control indicators and data</li> <li>Monitor supply and flow of materials to and from the process</li> </ul>
Navigate the world of work	<ul style="list-style-type: none"> <li>Apply workplace procedures to own role and responsibilities</li> <li>Identify skills, knowledge and experience required for performing own role in the workplace</li> <li>Ask questions to clarify understanding or seek further information</li> </ul>
Interact with others	<ul style="list-style-type: none"> <li>Communicate and report operational and safety information to relevant personnel</li> </ul>
Get the work done	<ul style="list-style-type: none"> <li>Access and interpret process control panels and system</li> <li>Maintain a clean and hazard-free work area</li> <li>Identify out-of-specification standards and maintain quality specifications</li> <li>Confirm equipment status and condition</li> <li>Interpret process and equipment information to monitor process and respond to abnormal performance and variations</li> </ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPOPR2023 Operate a packaging process	FDFOP2023A Operate a packaging process	Updated to meet Standards for Training Packages	Equivalent unit

## Links

Companion Volumes, including Implementation Guides, are available at VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# Assessment Requirements for FBPOPR2023 Operate a packaging process

## Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 1.0

## Performance Evidence

An individual demonstrating competency in this unit must satisfy all of the elements and performance criteria of this unit.

There must be evidence that the individual has operated a packaging process on at least one occasion, including:

- accessing workplace information to identify packaging requirements
- selecting, fitting and using PPE
- confirming supply of necessary packaging components/consumables, materials and services
- conducting pre-start checks, including:
  - inspecting equipment condition to identify any signs of wear
  - setting coders and printers
  - selecting appropriate equipment settings and/or related parameters
  - cancelling isolation or lock-outs as required
  - confirming that equipment is clean and correctly configured for packaging requirements
  - positioning sensors and controls correctly
  - ensuring any scheduled maintenance has been completed
  - confirming that all safety guards are in place and operational
- starting, operating, monitoring and adjusting packaging equipment to achieve required outcomes, including:
  - packaging components/consumables and/or product
  - monitoring control points (for example, weights, codes, placement, glue temperatures, alignment and appearance, configuration and seal integrity) as required to confirm process remains within specification
- monitoring supply and flow of materials to and from the process
- taking corrective action in response to out-of-specification results
- responding to and/or reporting equipment failure within level of responsibility
- locating emergency stop functions on equipment

- following isolation and lock-out/tag-out procedures as required to take packaging equipment off-line in preparation for cleaning and/or maintenance within level of responsibility
- completing workplace records as required
- maintaining work area to meet housekeeping standards
- using process control systems according to enterprise procedures
- cleaning and sanitising equipment according to enterprise procedures
- following relevant work health and safety procedures.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- purpose and basic principles of the packaging process, including:
  - the purpose and characteristics required of packaging materials used
  - the principles of the packaging process used (where methods involve vacuum or map packaging, it includes an understanding of the effect of modified atmosphere on product shelf-life)
- product and packaging coding requirements and related legal requirements, including product weight
- basic operating principles of equipment, including:
  - main equipment components
  - status and purpose of guards
  - equipment operating capacities and applications
  - the purpose and location of sensors and related feedback instrumentation
- services required and action to take if services are not available
- the flow of processes supplying the packaging process and the effect of outputs on downstream processes
- quality characteristics required of the packaging process, including seal integrity requirements
- effect of variation in inputs, including packaging components/consumables, materials and/or services, on process performance
- operating requirements and parameters, and corrective action required where operation is outside specified operating parameters, including restart procedures following a crash or jam-up
- typical equipment faults and related causes, including signs and symptoms of faulty equipment and early warning signs of potential problems
- methods used to monitor the packaging process, including visual inspecting, and measuring and testing as required by the process
- inspection or test points (control points) in the process and the related procedures and recording requirements
- contamination/food safety risks related to stages in the packaging process, and related control measures
- common causes of variation and corrective action required

- work health and safety hazards and controls relevant to the packaging process
- requirements of different shutdowns as appropriate to the packaging process, including;
  - emergency and routine shutdowns and procedures to follow in the event of a power outage
  - conducting basic equipment referencing where required
- isolation, lock-out and tag-out procedures and responsibilities
- procedures and responsibility for reporting production and performance information
- environmental issues and controls relevant to the process, including waste/rework collection and handling procedures related to the process
- basic operating principles of process control, including the relationship between control panels and systems and the physical equipment
- cleaning and sanitation procedures for packaging equipment.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - a workplace or an environment that accurately represents workplace conditions
- resources, equipment and materials:
  - personal protective clothing and equipment
  - packaging and related equipment and services
  - materials to be packaged and packaging components/consumables
  - sampling schedules, test procedures and equipment
- specifications:
  - work procedures, including advice on safe work practices, food safety, quality and environmental requirements
  - information on equipment capacity and operating parameters
  - specifications, control points and operating parameters
  - documentation and recording procedures
  - cleaning procedures, materials and equipment.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volumes, including Implementation Guides, are available at VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## FBPOPR2024 Operate a cooling, slicing and wrapping process

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 1.0

### Application

This unit of competency describes the skills and knowledge required to set up, operate, adjust and shut down a cooling, slicing and wrapping process.

This unit applies to individuals who work under general supervision and exercise limited autonomy in a food production environment. It typically applies to the production worker responsible for applying basic operating principles to the operation and monitoring of machines and equipment used to cool, slice and wrap food product.

All work must be carried out to comply with workplace procedures, in accordance with State/Territory work health and safety, and food safety regulations, legislation and standards that apply to the workplace.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

### Pre-requisite Unit

Nil

### Unit Sector

Operational (OPR)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare for work in processing area	1.1 Read or listen to work instructions from supervisor and clarify where needed

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	1.2 Identify work health and safety hazards and tell supervisor 1.3 Wear appropriate personal protective equipment and ensure correct fit 1.4 Confirm that product and packaging consumables are available to meet operating and food safety requirements 1.5 Identify and confirm cleaning and maintenance requirements and status have been met
2. Prepare the cooling, slicing and wrapping equipment and process for operation	2.1 Fit and adjust machine components and related attachments according to operating requirements 2.2 Enter processing and operating parameters to meet safety and production requirements 2.3 Check and adjust equipment to ensure optimum performance 2.4 Carry out pre-start checks according to operator instructions
3. Operate and monitor the cooling, slicing and wrapping process	3.1 Start, operate and monitor the process for variation in operating conditions 3.2 Monitor the process to confirm that product is cooled and packaged to meet food safety and production specifications 3.3 Identify, rectify and report out-of-specification equipment, product or process outcomes according to workplace requirements 3.4 Follow and apply workplace cleaning and environmental procedures
4. Shut down the cooling, slicing and wrapping process	4.1 Identify the appropriate shutdown procedure 4.2 Shut down the process safely according to operating procedures and clean equipment according to workplace procedures 4.3 Report maintenance requirements according to workplace procedures 4.4 Maintain workplace records according to workplace procedures

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"> <li>Interpret workplace and standard operating procedures relevant to job role</li> <li>Interpret production requirements</li> </ul>
Writing	<ul style="list-style-type: none"> <li>Record operating, routine maintenance and shutdown information on paper-based and electronic media</li> </ul>
Numeracy	<ul style="list-style-type: none"> <li>Monitor and interpret production and process control indicators and data</li> <li>Monitor supply and flow of materials to and from the process</li> </ul>
Navigate the world of work	<ul style="list-style-type: none"> <li>Apply workplace procedures to own role and responsibilities</li> <li>Identify skills, knowledge and experience required for performing own role in the workplace</li> <li>Ask questions to clarify understanding or seek further information</li> </ul>
Interact with others	<ul style="list-style-type: none"> <li>Communicate and report operational and safety information to relevant personnel</li> <li>Use modes of communication suitable to purpose to confirm understanding when conducting operational start-up and shutdown procedures</li> </ul>
Get the work done	<ul style="list-style-type: none"> <li>Access and interpret process control panels and system</li> <li>Maintain a clean and hazard-free work area</li> <li>Identify out-of-specification standards and maintain quality specifications</li> <li>Confirm equipment status and condition</li> <li>Interpret process and equipment information to monitor process and respond to abnormal performance and variations</li> </ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPOPR2024 Operate a cooling, slicing and wrapping process	FDFOP2024A Operate a cooling, slicing and wrapping process	Updated to meet Standards for Training Packages	Equivalent unit



## Links

Companion Volumes, including Implementation Guides, are available at VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## Assessment Requirements for FBPOPR2024 Operate a cooling, slicing and wrapping process

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 1.0

### Performance Evidence

An individual demonstrating competency in this unit must satisfy all of the elements and performance criteria of this unit.

There must be evidence that the individual has operated a cooling, slicing and wrapping process on at least one occasion, including:

- accessing workplace information to identify processing requirements
- selecting, fitting and using PPE
- confirming supply of necessary product, packaging consumables and services
- conducting pre-start checks, including:
  - inspecting equipment condition to identify any signs of wear
  - selecting appropriate settings and/or related parameters
  - cancelling isolation or lock-outs as required
  - confirming that equipment is clean and correctly configured for processing requirements
  - positioning sensors and controls correctly
  - ensuring any scheduled maintenance has been carried out
  - confirming that all safety guards are in place and operational
- confirming settings in the cooler, including:
  - conveyor speed/track position
  - humidity
  - air flow/fan settings
  - product layout/spacing
- confirming settings in the slicing/bagging equipment:
  - knife condition
  - machine speed
  - height/width settings
  - air pressure
  - bag/tag type and coding

- starting, operating, monitoring and adjusting process equipment to achieve required outcomes, including:
  - monitoring control points
  - conducting inspections as required to confirm process remains within specification
- monitoring supply and flow of product and packaging consumables to and from the process
- taking corrective action in response to out-of-specification results
- responding to and/or reporting equipment failure within level of responsibility
- locating emergency stop functions on equipment
- following isolation and lock-out/tag-out procedures as required to take process and related equipment off-line in preparation for cleaning and/or maintenance within level of responsibility
- completing workplace records as required
- maintaining work area to meet housekeeping standards
- using process control systems according to enterprise procedures
- cleaning and sanitising equipment according to enterprise procedures
- following relevant work health and safety procedures.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- purpose and basic principles of the cooling, slicing and wrapping process
- basic operating principles of equipment, including:
  - main equipment components
  - status and purpose of guards
  - equipment operating capacities and applications
  - the purpose and location of sensors and related feedback instrumentation
- services required and action to take if services are not available
- the flow of the cooling, slicing and wrapping process and the effect of outputs on downstream processes and final product
- quality characteristics to be achieved by the process
- quality requirements of packaging materials and effect of variation on process performance and product shelf-life
- operating requirements and parameters and corrective action required where operation is outside specified operating parameters
- typical equipment faults and related causes, including signs and symptoms of faulty equipment and early warning signs of potential problems
- methods used to monitor the cooling, slicing and bagging process, including inspecting and measuring as required by the process
- inspection or test points (control points) in the process and the related procedures and recording requirements
- contamination/food safety risks associated with the process and related control measures

- common causes of variation and corrective action required
- work health and safety hazards and controls, including the limitations of protective clothing and equipment relevant to the work process
- requirements of different shutdowns as appropriate to the process and workplace production requirements
- isolation, lock out and tag out procedures and responsibilities
- procedures and responsibility for reporting production and performance information
- environmental issues and controls relevant to the process, including waste/rework collection and handling procedures related to the process
- basic operating principles of process control, where relevant, including the relationship between control panels and systems and the physical equipment
- cleaning and sanitation procedures for the cooling, slicing and wrapping equipment.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - a workplace or an environment that accurately represents workplace conditions
- resources, equipment and materials:
  - personal protective clothing and equipment
  - cooling, slicing, bagging and related equipment and services
  - product and packaging consumables
- specifications:
  - work procedures, including advice on safe work practices, food safety, quality and environmental requirements
  - information on equipment capacity and operating parameters
  - production schedule/batch instructions
  - specifications, control points and processing parameters
  - documentation and recording requirements and procedures
  - cleaning procedures, materials and equipment as required.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volumes, including Implementation Guides, are available at VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# FBPOPR2025 Manufacture extruded and toasted products

## Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 1.0

## Application

This unit of competency describes the skills and knowledge required to set up, operate, adjust and shut down an extrusion, toasting and breaking process used in the manufacture of biscuit products.

This unit applies to individuals who work under general supervision and exercise limited autonomy in a biscuit production environment. It typically applies to the production worker responsible for applying basic operating principles to the operation and monitoring of machines and equipment in the production of biscuits. Biscuits may be for human consumption or animal feed.

All work must be carried out to comply with workplace procedures, in accordance with State/Territory work health and safety, and food safety regulations, legislation and standards that apply to the workplace.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

## Pre-requisite Unit

Nil

## Unit Sector

Operational (OPR)

## Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare for work in	1.1 Read or listen to work instructions from supervisor and clarify

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
processing area	where needed 1.2 Identify work health and safety hazards and tell supervisor 1.3 Wear appropriate personal protective equipment and ensure correct fit according to work health and safety requirements 1.4 Confirm materials are available to meet operating requirements 1.5 Identify and confirm cleaning and maintenance requirements and status according to work health and safety and food safety procedures
2. Prepare the extrusion, toasting and breaking process for operation	2.1 Fit and adjust machine components and related attachments 2.2 Enter processing and operating parameters to meet safety and production requirements 2.3 Check equipment performance and adjust according to operating requirements 2.4 Carry out pre-start checks according to operator instructions
3. Operate and monitor the extrusion, toasting and breaking process	3.1 Start, operate and monitor the process for variation in operating conditions according to work health and safety and operating procedures 3.2 Monitor the process to confirm that biscuit product meets specifications 3.3 Identify, rectify and report out-of-specification equipment, product or process outcomes according to workplace requirements
4. Shut down the extrusion, toasting and breaking process	4.1 Identify the appropriate shutdown procedure and implement 4.2 Report maintenance requirements according to workplace procedures 4.3 Maintain workplace records in required format

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
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Skill	Description
Reading	<ul style="list-style-type: none"> <li>Interpret workplace and standard operating procedures relevant to job role</li> <li>Interpret production requirements</li> </ul>
Writing	<ul style="list-style-type: none"> <li>Record operating, routine maintenance and shutdown information on paper-based and electronic media</li> </ul>
Numeracy	<ul style="list-style-type: none"> <li>Monitor and interpret production and process control indicators and data</li> <li>Monitor supply and flow of materials to and from the process</li> </ul>
Navigate the world of work	<ul style="list-style-type: none"> <li>Apply workplace procedures to own role and responsibilities</li> <li>Identify skills, knowledge and experience required for performing own role in the workplace</li> <li>Ask questions to clarify understanding or seek further information</li> </ul>
Interact with others	<ul style="list-style-type: none"> <li>Communicate and report operational and safety information to relevant personnel</li> <li>Use modes of communication suitable to purpose to confirm understanding when conducting operational start-up and shutdown procedures</li> </ul>
Get the work done	<ul style="list-style-type: none"> <li>Access and interpret process control panels and system</li> <li>Maintain a clean and hazard-free work area</li> <li>Identify out-of-specification standards and maintain quality specifications</li> <li>Confirm equipment status and condition</li> <li>interpret process and equipment information to monitor process and respond to abnormal performance and variations</li> </ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPOPR2025 Manufacture extruded and toasted products	FDFOP2025A Manufacture extruded and toasted products	Updated to meet Standards for Training Packages	Equivalent unit

## Links

Companion Volumes, including Implementation Guides, are available at VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>



## Assessment Requirements for FBPOPR2025 Manufacture extruded and toasted products

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 1.0

### Performance Evidence

An individual demonstrating competency in this unit must satisfy all of the elements and performance criteria of this unit.

There must be evidence that the individual has manufactured extruded and toasted products on at least one occasion, including:

- accessing workplace information to identify extrusion, toasting and breaking process requirements
- selecting, fitting and using PPE
- confirming supply of necessary materials and services, including ensuring a continuous supply of ingredients to the process
- conducting pre-start checks, including:
  - inspecting equipment condition to identify any signs of wear
  - selecting appropriate settings and/or related parameters
  - cancelling isolation or lock-outs as required
  - confirming that related equipment is clean and correctly configured for processing requirements
  - positioning sensors and controls correctly
  - ensuring any scheduled maintenance has been carried out
  - confirming that all safety guards are in place and operational
- confirming extruder settings, including:
  - water pump is operating
  - bin discharge speed
  - temperature and heater
  - motor speed
  - screw feed
- starting, operating, monitoring and adjusting process equipment to achieve required outcomes, including monitoring control points and conducting inspections as required to confirm the process remains within specification, including:

- temperatures
- biscuit size (width, length and thickness)
- biscuit texture, colour and weight
- biscuit moisture level
- clean, even break/cut
- monitoring supply and flow of materials to and from the extrusion, toasting and breaking process
- taking corrective action in response to out-of-specification results
- responding to and/or reporting equipment failure within level of responsibility
- locating emergency stop functions on equipment
- shutting down equipment in response to an emergency situation
- following isolation and lock-out/tag-out procedures as required to take extrusion, toasting and breaking process and related equipment off-line in preparation for cleaning and/or maintenance within level of responsibility
- completing workplace records as required
- maintaining work area to meet housekeeping standards
- using process control systems according to enterprise procedures
- cleaning and sanitising equipment according to enterprise procedures
- following relevant work health and safety procedures.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- purpose and basic principles of each stage of the biscuit manufacturing process
- basic operating principles of equipment, including:
  - main equipment components
  - status and purpose of guards
  - equipment operating capacities and applications
  - the purpose and location of sensors and related feedback instrumentation
- services required and action to take if services are not available
- the flow of the process and the effect of outputs on downstream processes
- changes that occur in the product during processing
- quality characteristics to be achieved by the process
- quality requirements of materials and the effect of variation on process performance
- operating requirements and parameters and corrective action required where operation is outside specified operating parameters
- typical equipment faults and related causes, including:
  - signs and symptoms of faulty equipment
  - early warning signs of potential problems
- methods used to monitor the production process, including inspecting, measuring and testing as required by the process

- inspection or test points (control points) in the process and the related procedures and recording requirements
- contamination/food safety risks associated with the process and related control measures
- common causes of variation and corrective action required
- work health and safety hazards and controls relevant to manufacturing extruded and toasted products
- requirements of different shutdowns as appropriate to the process and workplace production requirements, including emergency and routine shutdowns, and procedures to follow in the event of a power outage
- isolation, lock-out and tag-out procedures and responsibilities
- procedures and responsibility for reporting production and performance information
- environmental issues and controls relevant to the process, including waste/rework collection and handling procedures related to the process
- basic operating principles of process control, where relevant, including the relationship between control panels and systems and the physical equipment
- cleaning and sanitation procedures for manufacturing extruded and toasted products.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - a workplace or an environment that accurately represents workplace conditions
- resources, equipment and materials:
  - personal protective clothing and equipment
  - extrusion, toasting and breaking process and related equipment and services
  - ingredients to be processed
  - sampling schedules and test procedures and equipment as required
  - cleaning procedures, materials and equipment as required
- specifications:
  - work procedures, including advice on safe work practices, food safety, quality and environmental requirements
  - information on equipment capacity and operating parameters
  - production schedule and recipe/batch instructions
  - specifications, control points and processing parameters
  - documentation and recording requirements and procedures.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volumes, including Implementation Guides, are available at VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## FBPOPR2026 Operate a forming or shaping process

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 1.0

### Application

This unit of competency describes the skills and knowledge required to set up, operate, adjust and shut down a biscuit forming or shaping process.

This unit applies to individuals who work under general supervision and exercise limited autonomy in a biscuit production environment. It typically applies to the production worker responsible for applying basic operating principles to the operation and monitoring of machines and equipment to form and shape biscuit dough. Biscuits may be for human consumption or animal feed.

All work must be carried out to comply with workplace procedures, in accordance with State/Territory work health and safety, and food safety regulations, legislation and standards that apply to the workplace.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

### Pre-requisite Unit

Nil

### Unit Sector

Operational (OPR)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare for work in processing area	1.1 Read or listen to work instructions from supervisor and clarify where needed

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	1.2 Identify work health and safety hazards and tell supervisor 1.3 Wear appropriate personal protective equipment and ensure correct fit according to work health and safety requirements 1.4 Confirm materials and ingredients are available to meet operating and food safety requirements 1.5 Identify and confirm cleaning and maintenance requirements and status
2. Prepare the biscuit forming process for operation	2.1 Fit and adjust machine components and related attachments according to operating requirements 2.2 Enter processing or operating parameters to meet safety and production requirements 2.3 Check and adjust equipment performance according to operating requirements 2.4 Carry out pre-start checks according to operator instructions
3. Operate and monitor the biscuit forming process	3.1 Start, operate and monitor the process for variation in operating conditions according to work health and safety and operating requirements 3.2 Monitor the process to confirm that formed product is produced to specification 3.3 Identify, rectify and report out-of-specification equipment, product or process outcomes according to workplace requirements
4. Shut down the biscuit forming process	4.1 Identify the appropriate shutdown procedure and implement safely 4.2 Report maintenance requirements according to workplace procedures 4.3 Maintain workplace records in required format

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
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Skill	Description
Reading	<ul style="list-style-type: none"> <li>Interpret workplace and standard operating procedures relevant to job role</li> <li>Interpret production requirements</li> </ul>
Writing	<ul style="list-style-type: none"> <li>Record operating, routine maintenance and shutdown information on paper-based and electronic media</li> </ul>
Numeracy	<ul style="list-style-type: none"> <li>Monitor and interpret production and process control indicators and data</li> <li>Monitor supply and flow of materials to and from the process</li> </ul>
Navigate the world of work	<ul style="list-style-type: none"> <li>Apply workplace procedures to own role and responsibilities</li> <li>Identify skills, knowledge and experience required for performing own role in the workplace</li> <li>Ask questions to clarify understanding or seek further information</li> </ul>
Interact with others	<ul style="list-style-type: none"> <li>Communicate and report operational and safety information to relevant personnel</li> <li>Use modes of communication suitable to purpose to confirm understanding when conducting operational start-up and shutdown procedures</li> </ul>
Get the work done	<ul style="list-style-type: none"> <li>Access and interpret process control panels and system</li> <li>Maintain a clean and hazard-free work area</li> <li>Identify out-of-specification standards and maintain quality specifications</li> <li>Confirm equipment status and condition</li> <li>Interpret process and equipment information to monitor process and respond to abnormal performance and variations</li> </ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPOPR2026 Operate a forming or shaping process	FDFOP2026A Operate a forming or shaping process	Updated to meet Standards for Training Packages	Equivalent unit

## Links

Companion Volumes, including Implementation Guides, are available at VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>



# Assessment Requirements for FBPOPR2026 Operate a forming or shaping process

## Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 1.0

## Performance Evidence

An individual demonstrating competency in this unit must satisfy all of the elements and performance criteria of this unit.

There must be evidence that the individual has operated a forming or shaping process on at least one occasion, including:

- accessing workplace information to identify biscuit forming process requirements
- selecting, fitting and using PPE
- confirming supply and condition of necessary materials and services, including transferring and loading dough into hoppers
- confirming condition of dough, including:
  - dough type matches product specification
  - dough temperature, consistency/texture, moisture level, weight and colour
  - dough standing time
  - dough supply/quantities
- conducting pre-start checks, including:
  - inspecting equipment condition to identify any signs of wear
  - selecting appropriate settings and/or related parameters
  - cancelling isolation or lock-outs as required
  - confirming that related equipment is clean and correctly configured for processing requirements
  - positioning sensors and controls correctly
  - ensuring any scheduled maintenance has been carried out
  - confirming that all safety guards are in place and operational
- confirming setting selection, including:
  - setting parameters for process type
  - setting equipment speeds
  - adjusting roller and web settings (as required)
  - adjusting depositing/extrusion settings (as required)

- starting, operating, monitoring and adjusting process equipment to achieve required outcomes, including control points and conducting inspections as required to confirm process remains within specification, including:
  - biscuit size, shape and thickness
  - biscuit weight
  - dough temperature
- forming product to specification, including conducting a trial run in preparation for production run
- monitoring supply and flow of materials to and from the process
- taking corrective action in response to out-of-specification results
- responding to and/or reporting equipment failure within level of responsibility
- conducting product/batch changeovers
- locating emergency stop functions on equipment
- shutting down equipment in response to an emergency situation
- following isolation and lock-out/tag-out procedures as required to take process and related equipment off-line in preparation for cleaning and/or maintenance within level of responsibility
- completing workplace records as required
- maintaining work area to meet housekeeping standards
- using process control systems according to workplace procedures
- cleaning and sanitising equipment according to workplace procedures
- following relevant work health and safety procedures.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- purpose and basic principles of biscuit forming
- basic operating principles of equipment, including:
  - main equipment components
  - status and purpose of guards
  - equipment operating capacities and applications
  - the purpose and location of sensors and related feedback instrumentation
- services required and action to take if services are not available
- the flow of the biscuit forming process and the effect of outputs on downstream processes
- effect of dough quality on process outcomes
- quality characteristics to be achieved by the process
- quality requirements of materials and effect of variation on process performance
- operating requirements and parameters and corrective action required where operation is outside specified operating parameters, including procedures for incorporating reworked dough and procedures for mending webs as required
- typical equipment faults and related causes, including signs and symptoms of faulty equipment and early warning signs of potential problems

- methods used to monitor the production process, including inspecting, measuring and testing as required by the process
- inspection or test points (control points) in the process and the related procedures and recording requirements
- contamination/food safety risks associated with the process and related control measures
- common causes of variation and corrective action required
- work health and safety hazards and controls relevant to operating a forming or shaping process
- requirements of different shutdowns as appropriate to the process and workplace production requirements, including emergency and routine shutdowns, and procedures to follow in the event of a power outage
- isolation, lock-out and tag-out procedures and responsibilities
- procedures and responsibility for reporting production and performance information
- environmental issues and controls relevant to the process, including waste/rework collection and handling procedures related to the process
- basic operating principles of process control, including the relationship between control panels and systems and the physical equipment
- cleaning and sanitation procedures for biscuit forming and shaping equipment.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - a workplace or an environment that accurately represents workplace conditions
- resources, equipment and materials:
  - personal protective clothing and equipment
  - forming process and related equipment and services
  - biscuit dough to be formed
  - sampling and testing schedules and procedures and equipment
- specifications:
  - work procedures, including advice on safe work practices, food safety, quality and environmental requirements
  - information on equipment capacity and operating parameters
  - production schedule and recipe/batch instructions
  - specifications, control points and processing parameters
  - documentation and recording procedures
  - cleaning procedures, materials and equipment.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volumes, including Implementation Guides, are available at VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## FBPOPR2027 Dispense non-bulk ingredients

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 1.0

### Application

This unit of competency describes the skills and knowledge required to weigh, measure and label non-bulk ingredients to meet production requirements.

This unit applies to individuals who work under general supervision and exercise limited autonomy in a production environment within the food processing industry. It typically applies to the production worker responsible for the dispensing of ingredients in order to support production operations. Ingredients may be highly concentrated materials, including colours, flavours, buffered acids and preservatives.

All work must be carried out to comply with workplace procedures, in accordance with State/Territory work health and safety, and food safety regulations, legislation and standards that apply to the workplace.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

### Pre-requisite Unit

Nil

### Unit Sector

Operational (OPR)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare for work in processing area	1.1 Read or listen to work instructions from supervisor and clarify where needed

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	1.2 Identify work health and safety hazards and tell supervisor 1.3 Wear appropriate personal protective equipment and ensure correct fit according to work health and safety requirements 1.4 Inspect materials to confirm type, quality clearance, and quantities, and identify any obvious contamination or non-compliance
2. Prepare to dispense ingredients	2.1 Select measuring and weighing equipment appropriate to dispensing requirements and confirm readiness for use 2.2 Confirm that containers, bags and labels are available according to job specifications 2.3 Carry out pre-start checks according to operator instructions
3. Measure and/or weigh ingredients	3.1 Weigh or measure non-bulk ingredients and additives according to food safety and job specifications 3.2 Label dispensed ingredients according to workplace procedures 3.3 Monitor the accuracy of measuring and dispensing equipment to identify variation in operating conditions 3.4 Report variations in equipment operation 3.5 Follow and apply workplace cleaning and environmental procedures
4. Complete the dispensing process	4.1 Clean dispensing equipment according to workplace procedures 4.2 Identify and report unacceptable equipment and utensil condition 4.3 Identify and report maintenance requirements

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"> <li>Interpret workplace and standard operating procedures relevant to job role</li> <li>Interpret production requirements</li> </ul>

Skill	Description
Writing	<ul style="list-style-type: none"> <li>Record operating, routine maintenance and shutdown information on paper-based and electronic media</li> </ul>
Numeracy	<ul style="list-style-type: none"> <li>Monitor and interpret production and process control indicators and data</li> <li>Monitor supply and flow of materials to and from the process</li> </ul>
Navigate the world of work	<ul style="list-style-type: none"> <li>Apply workplace procedures to own role and responsibilities</li> <li>Identify skills, knowledge and experience required for performing own role in the workplace</li> <li>Ask questions to clarify understanding or seek further information</li> </ul>
Interact with others	<ul style="list-style-type: none"> <li>Communicate and report operational and safety information to relevant personnel</li> <li>Use modes of communication suitable to purpose to confirm understanding when conducting operational start-up and shutdown procedures</li> </ul>
Get the work done	<ul style="list-style-type: none"> <li>Access and interpret process control panels and system</li> <li>Maintain a clean and hazard-free work area</li> <li>Identify out-of-specification standards and maintain quality specifications</li> <li>Confirm equipment status and condition</li> <li>Interpret process and equipment information to monitor process and respond to abnormal performance and variations</li> </ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPOPR2027 Dispense non-bulk ingredients	FDFOP2027A Dispense non-bulk ingredients	Updated to meet Standards for Training Packages	Equivalent unit

## Links

Companion Volumes, including Implementation Guides, are available at VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# Assessment Requirements for FBOPR2027 Dispense non-bulk ingredients

## Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 1.0

## Performance Evidence

An individual demonstrating competency in this unit must satisfy all of the elements and performance criteria of this unit.

There must be evidence that the individual has dispensed non-bulk ingredients on at least one occasion, including:

- accessing workplace information to identify dispensing requirements
- selecting, fitting and using personal protective equipment, including use of breathing apparatus and fume cabinets
- confirming supply of necessary raw materials, including checking ingredient type, grade, quantity, use-by codes and quality clearance
- carrying out visual inspections and tests to confirm that raw materials are appropriate for use
- conducting pre-start checks on equipment, including:
  - inspecting the condition and cleanliness of equipment and utensils
  - taring scales and carrying out any related procedures to confirm that equipment is accurately calibrated and fit for use
  - confirming that any scheduled maintenance has been carried out
- identifying out-of-specification or unacceptable ingredient condition, and taking appropriate corrective action
- measuring materials and additives within specified accuracy range
- taking corrective action in response to out-of-specification results
- pacing dispensing to meet production requirements
- packing and labelling dispensed materials as required
- following labelling procedures, including identifying batch numbers, dates of preparation, contents and use-by information
- reconciling and recording materials dispensed against materials released, and returning unused materials to storage as required
- cleaning dispensing equipment and utensils according to workplace procedures
- responding to and/or reporting equipment failure within level of responsibility



- completing dispensing records by workplace recording system
- maintaining work area to meet housekeeping standards
- using basic equipment to support the dispensing process according to workplace procedures
- following relevant work health and safety procedures.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- quality characteristics and related handling requirements of raw materials/ingredients and additives used, including best-by/use-by codes, ingredient compatibility and common allergens used
- storage requirements and shelf-life of ingredients and additives, including ingredients with special storage and handling requirements and including hygroscopic ingredients
- relevant legislative responsibilities and workplace systems for recording and tracing the use of ingredients and additives and related workplace labelling requirements and purpose
- the relationship between the dispensing process and related operations, including accuracy and tolerance and consequence of error
- purpose, measuring and accuracy capacity of instrumentation and related equipment calibration responsibilities and procedures
- control points in the dispensing process
- contamination and food safety issues associated with dispensing and related control measures
- procedures for requisitioning, receiving and returning ingredients from stores
- typical equipment faults and related causes, including signs and symptoms of faulty equipment and early warning signs of potential problems
- work health and safety hazards and controls, including the limitations of protective clothing and equipment relevant to the work process
- cleaning, care and storage of equipment and instrumentation used for dispensing non-bulk ingredients
- procedures and responsibility for reporting production and performance information
- environmental issues and controls relevant to the dispensing process, including waste collection and handling procedures related to the process.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - a workplace or an environment that accurately represents workplace conditions
- resources, equipment and materials:
  - personal protective clothing and equipment
  - dispensing instrumentation and equipment

- containers, bags, labelling and storage facilities
- raw materials, ingredients and additives to be dispensed
- sampling schedules and test procedures and equipment as required
- specifications:
  - work procedures, including advice on safe work practices, food safety, quality and environmental requirements, stock flow systems, production schedules, batch and recipe instructions
  - information on equipment and instrumentation capacity and operating parameters
  - dispensing schedule or batch instructions
  - documentation and recording requirements and procedures
  - cleaning and sanitation procedures, materials and equipment.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volumes, including Implementation Guides, are available at VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## FBPOPR2028 Operate a mixing or blending process

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 1.0

### Application

This unit of competency describes the skills and knowledge required to combine ingredients and additives in the correct quantities and sequence, and to operate and shut down mixing and blending equipment to achieve the required mix characteristics.

This unit applies to individuals who work under general supervision and exercise limited autonomy in the food processing industry. Mixes may include concentrated pre-mixes or bulk blends. The output of this process may be a product requiring further processing or for external use.

All work must be carried out to comply with workplace procedures, in accordance with State/Territory food safety, and work health and safety, regulations and legislation that apply to the workplace.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

### Pre-requisite Unit

Nil

### Unit Sector

Operational (OPR)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare for work in processing area	1.1 Confirm materials are available to meet production requirements 1.2 Wear appropriate personal protective clothing and ensure correct

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	fit according to work health and safety requirements 1.3 Prepare pre-mixes according to food safety and job requirements 1.4 Identify and confirm cleaning and maintenance requirements and status
2. Prepare the mixing or blending equipment and process for operation	2.1 Fit machine components and related attachments and adjust to meet operating requirements 2.2 Enter processing or operating parameters to meet production requirements 2.3 Check equipment performance and adjust according to operating requirements 2.4 Perform pre-start checks according to operator instructions
3. Operate and monitor the mixing or blending process	3.1 Deliver ingredients and additives to the mixer in the required quantities and sequence to meet recipe specifications 3.2 Start, operate and monitor the process for variation in operating conditions according to work health and safety and operating procedures 3.3 Monitor the mixing process to confirm that specifications are met 3.4 Identify, rectify and report out-of-specification equipment, product or process outcomes according to workplace requirements 3.5 Transfer mix to required production or storage location according to food safety and workplace procedures 3.6 Follow and apply workplace cleaning and environmental procedures
4. Shut down the mixing or blending process	4.1 Identify the appropriate shutdown procedure 4.2 Shut down the process safely according to operating procedures 4.3 Identify and report maintenance requirements according to workplace procedures 4.4 Maintain workplace records in required format

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"> <li>Interpret workplace and standard operating procedures relevant to job role</li> <li>Interpret production requirements</li> </ul>
Writing	<ul style="list-style-type: none"> <li>Record operating, routine maintenance and shutdown information on paper-based and electronic media</li> </ul>
Numeracy	<ul style="list-style-type: none"> <li>Monitor and interpret production and process control indicators and data</li> <li>Monitor supply and flow of materials to and from the process</li> </ul>
Navigate the world of work	<ul style="list-style-type: none"> <li>Apply workplace procedures to own role and responsibilities</li> <li>Identify skills, knowledge and experience required for performing own role in the workplace</li> <li>Ask questions to clarify understanding or seek further information</li> </ul>
Interact with others	<ul style="list-style-type: none"> <li>Communicate and report operational and safety information to relevant personnel</li> <li>Use modes of communication suitable to purpose to confirm understanding when conducting operational start-up and shutdown procedures</li> </ul>
Get the work done	<ul style="list-style-type: none"> <li>Access and interpret process control panels and system</li> <li>Maintain a clean and hazard-free work area</li> <li>Identify out-of-specification standards and maintain quality specifications</li> <li>Confirm equipment status and condition</li> <li>Interpret process and equipment information to monitor process and respond to abnormal performance and variations</li> </ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPOPR2028 Operate a mixing or blending process	FDFOP2028A Operate a mixing or blending process	Updated to meet Standards for Training Packages	Equivalent unit

## Links

Companion Volumes, including Implementation Guides, are available at VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## Assessment Requirements for FBPOPR2028 Operate a mixing or blending process

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 1.0

### Performance Evidence

An individual demonstrating competency in this unit must satisfy all of the elements and performance criteria of this unit.

There must be evidence that the individual has operated a mixing or blending process on at least one occasion, including:

- accessing workplace information to identify mixing/blending requirements
- selecting, fitting and using personal protective clothing and/or equipment
- confirming supply of necessary materials and services
- conducting pre-start checks, including:
  - inspecting equipment condition to identify any signs of wear
  - selecting appropriate settings and/or related parameters
  - cancelling isolation or lock-outs as required
  - confirming that equipment is clean and correctly configured for processing requirements
  - positioning sensors and controls correctly
  - ensuring any scheduled maintenance has been carried out
  - confirming that all safety guards are in place and operational
- adding/loading materials in correct quantities and sequence, including monitoring automatic ingredient addition and/or manual addition
- starting, monitoring and adjusting mixing or blending process equipment to achieve required outcomes, including monitoring flow rates/quantity, time or temperature and mix/blending settings
- monitoring control points and conducting inspections to confirm process remains within specification
- monitoring supply and flow of ingredients and additives to and from the mixing or blending process
- pacing mixing/blending to meet production requirements
- taking corrective action in response to out-of-specification results
- responding to and/or reporting equipment failure within level of responsibility

- locating emergency stop functions on equipment
- following isolation and lock-out or tag-out procedures to take process and related equipment off-line in preparation for cleaning and/or maintenance within level of responsibility
- completing workplace records
- maintaining work area to meet housekeeping standards
- using process control systems according to workplace procedures
- labelling and storing pre-mixes and/or mixes according to workplace procedures
- cleaning and sanitising equipment according to workplace procedures
- following relevant work health and safety procedures.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- purpose and basic principles of preparing mixes and blends, including the characteristics and basic function of ingredients and additives used, method and sequence of ingredient addition required to achieve required blend characteristics and, where relevant, the purpose of conditioning, maturation or holding stages required prior to further processing of the mix
- specific gravity and bulk density as appropriate for ingredients used
- basic operating principles of mixing/blending equipment, including:
  - main equipment components
  - status and purpose of guards
  - equipment operating capacities and applications
  - the purpose and location of sensors and related feedback instrumentation
  - awareness of calibration schedules for scales and related weighing/measuring equipment
- services required and action to take if services are not available
- the flow of the mixing process and the effect of mix preparation on downstream processes
- procedures for requisitioning, receiving and returning ingredients from stores
- ingredient-handling requirements and shelf-life or coding
- quality characteristics required of ingredients and additives and their effect on mixing process performance, including methods used to condition or prepare ingredients prior to addition
- methods used to monitor the blending or mixing process, including inspecting, measuring and testing, by the process
- inspection or test points (control points) in the process and the related procedures and recording requirements, including:
  - flow rates
  - ingredient/additive addition sequence
  - times/temperatures and agitator speeds
  - required characteristics of blend, including viscosity, appearance and temperature



- required attributes of the mixed or blended output, including chemical, texture and flavour profiles as required
- the effect of the mixing or blending parameters, including temperature and length of mix time on mixing outcome
- contamination and food safety risks associated with the process and related control measures, including product compatibility and cross-contamination risks and associated cleaning requirements, as well as common allergens used in mixes prepared
- operating requirements and parameters, and corrective action required when operation is outside specified operating parameters
- typical equipment faults and related causes, including signs and symptoms of faulty equipment and early warning signs of potential problems
- common causes of variation and corrective action required
- work health and safety hazards and controls relevant to the mixing and blending process
- requirements of different shutdowns as appropriate to the blending or mixing process and workplace production requirements, including emergency and routine shutdowns, and procedures to follow in the event of a power outage
- isolation, lock-out and tag-out procedures and responsibilities relevant to the mixing and blending process
- procedures and responsibility for reporting production and performance information
- environmental issues and controls relevant to the mixing or blending process, including waste or rework collection and handling procedures related to the process
- basic operating principles of process control, where relevant, including the relationship between control panels and systems and the physical equipment
- characteristics of solutions, suspensions and emulsions for the mixing and blending process
- product labelling and storage requirements for the mixing and blending process
- cleaning and sanitation procedures for mixing or blending equipment.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - a workplace or an environment that accurately represents workplace conditions
- resources, equipment and materials:
  - personal protective clothing and equipment
  - mixing/blending process equipment, services and related storage facilities as required
  - ingredients and additives required for the mixing/blending process
  - sampling schedules and test procedures and equipment as required
  - cleaning procedures, materials and equipment
- specifications:
  - work procedures, including advice on safe work practices, food safety, quality and environmental requirements, stock flow systems, production schedules, batch/recipe instructions

- information on equipment capacity and operating parameters
- production schedule/batch/recipe instructions
- specifications, control points and processing parameters.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volumes, including Implementation Guides, are available at VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## FBPOPR2029 Operate a baking process

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 1.0

### Application

This unit of competency describes the skills and knowledge required to set up, operate, adjust and shut down processes used to bake and depan baked products.

This unit applies to individuals who work under general supervision and exercise limited autonomy in a food processing production workplace. It typically applies to the production worker responsible for producing baked products that may include pastry, biscuits, cake and other dough-based products that may be fresh or frozen.

This unit does not apply to production of bread. For bread baking, refer to the relevant plant baking and/or retail baking units of competency.

All work must be carried out to comply with workplace procedures, in accordance with State/Territory work health and safety, and food safety regulations, legislation and standards that apply to the workplace.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

### Pre-requisite Unit

Nil

### Unit Sector

Operational (OPR)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare the baking equipment and process for operation	1.1 Confirm materials are available to meet operating requirements 1.2 Wear appropriate personal protective clothing and ensure correct fit according to work health and safety requirements 1.3 Prepare materials to meet production requirements 1.4 Confirm services are available and ready for operation 1.5 Check equipment performance and pans, and adjust according to operating requirements 1.6 Set the process to meet safety and production requirements 1.7 Conduct pre-start checks according to operator instructions
2. Operate and monitor the baking process	2.1 Start, operate and monitor the baking process for variation in operating conditions according work health and safety and operating procedures 2.2 Load product and bake product to specification according to food safety and operating requirements 2.3 Identify, rectify and report out-of-specification equipment, product or process outcomes according to workplace requirements 2.4 Follow and apply workplace cleaning and environmental procedures
3. Shut down the baking process	3.1 Identify the appropriate shutdown procedure 3.2 Shut down the process safely according to operating procedures 3.3 Identify and report maintenance requirements 3.4 Maintain workplace records in appropriate format

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"> <li>Interpret workplace and standard operating procedures relevant to job role</li> <li>Interpret production requirements</li> </ul>

Skill	Description
Writing	<ul style="list-style-type: none"> <li>Record operating, routine maintenance and shutdown information on paper-based and electronic media</li> </ul>
Numeracy	<ul style="list-style-type: none"> <li>Monitor and interpret production and process control indicators and data</li> <li>Monitor supply and flow of materials to and from the process</li> </ul>
Navigate the world of work	<ul style="list-style-type: none"> <li>Apply workplace procedures to own role and responsibilities</li> <li>Identify skills, knowledge and experience required for performing own role in the workplace</li> <li>Ask questions to clarify understanding or seek further information</li> </ul>
Interact with others	<ul style="list-style-type: none"> <li>Communicate and report operational and safety information to relevant personnel</li> <li>Use modes of communication suitable to purpose to confirm understanding when conducting operational start-up and shutdown procedures</li> </ul>
Get the work done	<ul style="list-style-type: none"> <li>Access and interpret process control panels and system</li> <li>Maintain a clean and hazard-free work area</li> <li>Identify out-of-specification standards and maintain quality specifications</li> <li>Confirm equipment status and condition</li> <li>Interpret process and equipment information to monitor process and respond to abnormal performance and variations</li> </ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPOPR2029 Operate a baking process	FDFOP2029A Operate a baking process	Updated to meet Standards for Training Packages	Equivalent unit

## Links

Companion Volumes, including Implementation Guides, are available at VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# Assessment Requirements for FBPOPR2029 Operate a baking process

## Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 1.0

## Performance Evidence

An individual demonstrating competency in this unit must satisfy all of the elements and performance criteria of this unit.

There must be evidence that the individual has operated a baking process on at least one occasion, including:

- accessing workplace information to identify baking process requirements
- selecting, fitting and using personal protective clothing and/or equipment
- confirming supply of necessary materials and services
- confirming condition and quality of ingredients
- conducting pre-start checks, including:
  - inspecting equipment condition to identify any signs of wear
  - selecting appropriate settings and/or related parameters
  - cancelling isolation or lock-outs
  - confirming that equipment is clean and correctly configured for processing requirements
  - positioning sensors and controls correctly
  - ensuring any scheduled maintenance has been carried out
  - confirming that all safety guards are in place and operational, and rework bins are positioned
- confirming settings and parameters, including:
  - correct oven settings for baking time
  - oven zone temperatures
  - conveyor speed, loaders and dischargers
  - circulation and exhaust fans
  - water seals
  - burner controls and steam
  - heights, guides and air blowers
  - pre-blast conveyor

- starting, operating, monitoring and adjusting process equipment to achieve required outcomes, including monitoring control points and conducting inspections to confirm process remains within specification, including:
  - baking output, including quantities and product appearance (colour and sheen, uniformity of shape, weight and size, and moisture)
- confirming product is cleanly removed from the pan (depanning stage) and/or belt/band
- taking corrective action in response to out-of-specification results
- responding to and/or reporting equipment failure within level of responsibility
- locating emergency stop functions on baking equipment
- following isolation and lock-out/tag-out procedures to take process and related equipment off-line in preparation for cleaning and/or maintenance within level of responsibility
- sorting, collecting, treating, recycling or disposing of waste, including clearing dust extractors
- completing workplace records
- maintaining work area to meet housekeeping standards
- setting up, starting up and monitoring the proofer, including time and temperature, humidity and position of the loading arm
- monitoring the proving process according to workplace procedures, including dough condition/surface and dough size and height
- setting up and operating finishing equipment according to workplace procedures, including setting topping application equipment, water sprays and splitters (monitoring typically involves checking appearance to confirm even coverage and/or finish to product specification)
- using process control systems according to workplace procedures
- cleaning and sanitising equipment according to workplace procedures
- following relevant work health and safety procedures.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- purpose and basic principles of each stage of the baking process, including the stages of the baking process and changes that occur in the product, including starch gelatinisation, the effect of variables (e.g. time, temperature and humidity), and oven zones as appropriate to oven type
- basic operating principles of equipment, including:
  - the difference between convection and impingement ovens
  - main equipment components
  - status and purpose of guards
  - equipment operating capacities and applications
  - the purpose and location of sensors and related feedback instrumentation
- services required and action to take if services are not available
- the flow of the baking process and the effect of outputs on customer satisfaction and downstream processes, including packaging

- quality requirements of materials and the effect of variation on baking process performance
- quality characteristics to be achieved by the baked product
- process specifications, procedures and operating parameters for different baked pastry products
- operating requirements, parameters and corrective action required where operation is outside specified operating parameters
- typical equipment faults and related causes, including signs and symptoms of faulty equipment and early warning signs of potential problems
- methods used to monitor the baking process, including inspecting, measuring and testing, by the process
- inspection or test points (control points) in the baking process and the related procedures and recording requirements, including the ability to conduct dew point and/or wet bulb tests
- contamination/food safety risks associated with the baking process and related control measures
- common causes of variation and corrective action required
- work health and safety hazards and controls, including risks of spontaneous combustion and limitations of protective clothing and equipment used
- requirements of different shutdowns as appropriate to the baking process and workplace production requirements, including emergency and routine shutdowns, and procedures to follow in the event of a power outage
- isolation, lock-out and tag-out procedures and responsibilities relevant to operating a baking process
- procedures and responsibility for reporting production and performance information
- environmental issues and controls relevant to the baking process, including waste/rework collection and handling procedures related to the process
- purpose and operating procedures for related processes, including in-line proving and finishing equipment where relevant
- basic operating principles of process control where relevant, including the relationship between control panels and systems and the physical equipment
- routine maintenance procedures for baking equipment
- cleaning and sanitation procedures for baking equipment.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - a workplace or an environment that accurately represents workplace conditions
- resources, equipment and materials:
  - personal protective clothing and equipment
  - baking and depanning equipment and services, and related equipment
  - product to be baked
  - sampling schedules and test procedures and equipment



- specifications:
  - work procedures, including advice on safe work practices, food safety, quality and environmental requirements
  - information on equipment capacity and operating parameters
  - specifications, control points and processing parameters
  - production schedule and recipe/batch instructions
  - documentation and recording requirements and procedures
  - cleaning procedures, materials and equipment.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volumes, including Implementation Guides, are available at VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## FBPOPR2030 Operate a brewery fermentation process

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 1.0

### Application

This unit of competency describes the skills and knowledge required to set up, operate, adjust and shut down a brewery fermentation process.

This unit applies to individuals who work under general supervision and exercise limited autonomy in a food processing environment. It typically applies to the production worker responsible for applying basic operating principles to the operation and monitoring of a brewery fermentation process and associated equipment.

All work must be carried out to comply with workplace procedures, in accordance with State/Territory work health and safety, and food safety regulations, legislation and standards that apply to the workplace.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

### Pre-requisite Unit

FBPOPR2011 Identify key stages and beer production equipment in a brewery

### Unit Sector

Operational (OPR)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare the fermentation process for operation	1.1 Check production requirements according to job specifications 1.2 Confirm availability of required materials according to operating

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	<p>requirements</p> <p>1.3 Confirm availability of services according to workplace procedures</p> <p>1.4 Wear appropriate personal protective clothing and ensure correct fit according to work health and safety requirements</p> <p>1.5 Conduct pre-start checks according to operator instructions, including checking that hygiene and sanitation standards are met and all safety guards are in place</p> <p>1.6 Set the fermentation process to meet production requirements</p>
2. Operate and monitor the system	<p>2.1 Start up, operate and monitor the system for variation in operating conditions according to work health and safety and operating procedures</p> <p>2.2 Confirm system and sub-system outputs meet specifications</p> <p>2.3 Monitor equipment to confirm operating condition</p> <p>2.4 Monitor and control temperature to confirm operating condition</p> <p>2.5 Monitor and control pressure to ensure operating condition</p> <p>2.6 Undertake analysis to ensure yeast effectiveness and freedom from bacterial contamination according to food safety and workplace procedures</p>
3. Recover beer if required	<p>3.1 Put yeast slurry through a beer recovery process in order to minimise beer wastage</p> <p>3.2 Transfer recovered beer to appropriate tank or vessel according to food safety and workplace procedures</p>
4. Shut down the system	<p>4.1 Shut down the system safely according to operating procedures</p> <p>4.2 Clean and maintain equipment to meet the cleaning schedule and procedural requirements</p> <p>4.3 Collect, treat and dispose of or recycle waste generated by both the process and cleaning procedures</p> <p>4.4 Record workplace information in the appropriate format</p>

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"> <li>Interpret workplace and standard operating procedures relevant to job role</li> <li>Interpret production requirements</li> </ul>
Writing	<ul style="list-style-type: none"> <li>Record operating, routine maintenance and shutdown information on paper-based and electronic media</li> </ul>
Numeracy	<ul style="list-style-type: none"> <li>Monitor and interpret production and process control indicators and data</li> <li>Monitor supply and flow of materials to and from the process</li> </ul>
Navigate the world of work	<ul style="list-style-type: none"> <li>Apply workplace procedures to own role and responsibilities</li> <li>Identify skills, knowledge and experience required for performing own role in the workplace</li> <li>Ask questions to clarify understanding or seek further information</li> </ul>
Interact with others	<ul style="list-style-type: none"> <li>Communicate and report operational and safety information to relevant personnel</li> <li>Use modes of communication suitable to purpose to confirm understanding when conducting operational start-up and shutdown procedures</li> </ul>
Get the work done	<ul style="list-style-type: none"> <li>Access and interpret process control panels and system</li> <li>Maintain a clean and hazard-free work area</li> <li>Identify out-of-specification standards and maintain quality specifications</li> <li>Confirm equipment status and condition</li> <li>Interpret process and equipment information to monitor process and respond to abnormal performance and variations</li> </ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPOPR2030 Operate a brewery fermentation process	FDFOP2067A Operate a brewery fermentation process	Updated to meet Standards for Training Packages	Equivalent unit

## Links

Companion Volumes, including Implementation Guides, are available at VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## Assessment Requirements for FBPOPR2030 Operate a brewery fermentation process

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 1.0

### Performance Evidence

An individual demonstrating competency in this unit must satisfy all of the elements and performance criteria of this unit.

There must be evidence that the individual has set up, operated, adjusted and shut down a brewery fermentation process on at least one occasion, including:

- accessing workplace information to identify process requirements
- confirming availability of materials and services
- conducting pre-start checks, including:
  - inspecting equipment condition to identify any signs of wear
  - selecting appropriate settings and/or related parameters
  - cancelling isolation or lock-outs
  - confirming that equipment is clean and correctly configured for processing requirements
  - positioning sensors and controls correctly
  - ensuring any scheduled maintenance has been carried out
  - confirming that all safety guards are in place and operational
- operating vessel transfer equipment
- handling dangerous goods according to procedures
- monitoring control points within the fermentation process
- undertaking corrective action required in the event of variation to specifications and operating parameters
- sampling to ensure yeast effectiveness and freedom from bacterial contamination
- identifying work health and safety hazards and implementing appropriate action
- shutting down the process and equipment, and implementing cleaning requirements associated with changeovers
- handling waste according to requirements and procedures
- cleaning and sanitising equipment according to workplace procedures
- selecting, fitting and using personal protective clothing and equipment
- maintaining work area to meet housekeeping standards.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- purpose, principles and requirements of the fermentation process
- relationship between the fermentation process, the wort production process and the maturation process
- stages and changes that occur during fermentation
- fermentation process specifications, procedures and operating parameters
- significance of control points within the fermentation process
- fermentation equipment and instrumentation components, purpose and operation
- vessel-cooling systems for the brewery fermentation process
- common causes of variation and corrective action required
- work health and safety hazards and controls, including the limitations of protective clothing and equipment relevant to the work process
- procedures and responsibilities for reporting problems during the fermentation process
- environmental issues and controls, including waste handling requirements and procedures for the fermentation process
- shutdown and cleaning requirements associated with changeovers, and types of shutdowns
- recording requirements and procedures for a brewery fermentation process
- cleaning and sanitation procedures for brewery fermentation equipment
- sampling and testing procedures for fermentation.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - a workplace or an environment that accurately represents workplace conditions
- resources, equipment and materials:
  - personal protective clothing and equipment
  - relevant hazard control equipment
  - manual handling equipment
  - fermentation process equipment
  - fermentation raw material and other ingredients
- specifications:
  - standard operating procedures and related advice on specific safe work practices, company policies, and codes of practice relating to work health and safety
  - advice on relevant legislation and codes of practice relating to work health and safety
  - information systems and procedures.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## **Links**

Companion Volumes, including Implementation Guides, are available at VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>



## FBPOPR2031 Operate a coating application process

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 1.0

### Application

This unit of competency describes the skills and knowledge required to set up, operate, adjust and shut down processes to dust and apply coatings to product.

This unit applies to individuals who work under general supervision and exercise limited autonomy in a food processing production workplace. This unit typically applies to the production worker responsible for applying basic operating principles to the operation and monitoring of a coating process and associated equipment.

All work must be carried out to comply with workplace procedures, in accordance with State/Territory work health and safety, and food safety regulations, legislation and standards that apply to the workplace.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

### Pre-requisite Unit

Nil

### Unit Sector

Operational (OPR)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare for work in processing area	1.1 Confirm materials are available to meet operating requirements 1.2 Wear appropriate personal protective clothing and ensure correct

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	fit according to work health and safety requirements 1.3 Identify and confirm workplace cleaning and maintenance requirements and status
2. Prepare the coating process for operation	2.1 Enter processing and operating parameters to meet safety and production requirements 2.2 Check equipment performance and adjust according to operating requirements 2.3 Carry out pre-start checks according to operator instructions
3. Operate and monitor the coating process	3.1 Start, operate and monitor the process for variation in operating conditions according to work health and safety and operating procedures 3.2 Monitor the process to confirm that specifications are met 3.3 Identify, rectify and report out-of-specification equipment, product or process outcomes according to workplace requirements 3.4 Follow and apply workplace cleaning and environmental procedures
4. Shut down the coating process	4.1 Identify the appropriate shutdown procedure 4.2 Shut the process down safely according to operating procedures 4.3 Identify and report maintenance requirements 4.4 Maintain workplace records in appropriate format

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"> <li>Interpret workplace and standard operating procedures relevant to job role</li> <li>Interpret production requirements</li> </ul>
Writing	<ul style="list-style-type: none"> <li>Record operating, routine maintenance and shutdown information on paper-based and electronic media</li> </ul>

Skill	Description
Numeracy	<ul style="list-style-type: none"> <li>Monitor and interpret production and process control indicators and data</li> <li>Monitor supply and flow of materials to and from the process</li> </ul>
Navigate the world of work	<ul style="list-style-type: none"> <li>Apply workplace procedures to own role and responsibilities</li> <li>Identify skills, knowledge and experience required for performing own role in the workplace</li> <li>Ask questions to clarify understanding or seek further information</li> </ul>
Interact with others	<ul style="list-style-type: none"> <li>Communicate and report operational and safety information to relevant personnel</li> <li>Use modes of communication suitable to purpose to confirm understanding when conducting operational start-up and shutdown procedures</li> </ul>
Get the work done	<ul style="list-style-type: none"> <li>Access and interpret process control panels and system</li> <li>Maintain a clean and hazard-free work area</li> <li>Identify out-of-specification standards and maintain quality specifications</li> <li>Confirm equipment status and condition</li> <li>Interpret process and equipment information to monitor process and respond to abnormal performance and variations</li> </ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPOPR2031 Operate a coating application process	FDFOP2031A Operate a coating application process	Updated to meet Standards for Training Packages	Equivalent unit

## Links

Companion Volumes, including Implementation Guides, are available at VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# Assessment Requirements for FBPOPR2031 Operate a coating application process

## Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 1.0

## Performance Evidence

An individual demonstrating competency in this unit must satisfy all of the elements and performance criteria of this unit.

There must be evidence that the individual has operated a coating application process on at least one occasion, including:

- accessing workplace information to identify processing requirements
- selecting, fitting and using personal protective clothing and/or equipment
- confirming supply of necessary materials and services
- preparing coating materials as required
- conducting pre-start checks, including:
  - inspecting equipment condition to identify any signs of wear
  - selecting appropriate settings and/or related parameters
  - cancelling isolation or lock-outs as required
  - confirming that equipment is clean and correctly configured for processing requirements
  - positioning sensors and controls correctly
  - ensuring any scheduled maintenance has been carried out
  - confirming that all safety guards are in place and operational
- starting, operating, monitoring and adjusting coating equipment to achieve required outcomes (this will depend on the nature of coating materials), including:
  - condition of coating materials, including checking grist/particle shape and size, and checking for dough balls or lumps in flour-based breadingers
  - viscosity and temperature of batter-type breadingers and glazes
  - condition of product to be coated
  - product orientation/indexing
  - conveyor positions and speeds
  - drum speed
  - compression roller settings (drum applicator)

- dip pond levels
- air blow off settings
- spread/evenness of coating
- monitoring supply and flow of materials to and from the coating process
- taking corrective action in response to out-of-specification results
- conducting product/batch changeovers
- reporting and/or recording corrective action as required
- locating emergency stop functions on equipment
- following isolation and lock-out/tag-out procedures as required to take process and related equipment off-line in preparation for cleaning and/or maintenance within level of responsibility
- preparing equipment for cleaning
- responding to and/or reporting equipment failure within level of responsibility
- completing workplace records as required
- maintaining work area to meet housekeeping standards
- preparing breaders and glazes according to workplace procedures
- using process control systems according to workplace procedures
- cleaning and sanitising equipment according to workplace procedures
- following relevant work health and safety procedures.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- purpose and basic principles of coating, including coating process, process design and operation to achieve the coating requirements, related requirements of product and coating condition and equipment settings
- basic operating principles of coating application equipment, including:
  - main equipment components
  - status and purpose of guards
  - equipment operating capacities and applications
  - the purpose and location of sensors and related feedback instrumentation
- quality characteristics to be achieved by the coating process
- the flow of the coating process and the effect of product output on downstream processes
- quality requirements of coating materials and product to be coated, and effect of variation on process performance
- operating requirements and parameters of coating application equipment and corrective action required where operation is outside specified operating parameters
- typical equipment faults and related causes, including signs and symptoms of faulty equipment and early warning signs of potential problems
- techniques used to monitor the coating process, including inspecting, measuring and testing as required by the process

- inspection or test points (control points) in the process and the related procedures and recording requirements
- contamination/food safety risks associated with the process and related control measures relevant to the coating application process
- common causes of variation and corrective action required
- work health and safety hazards and controls relevant to the coating application process
- requirements of different shutdowns as appropriate to the process and workplace production requirements, including emergency and routine shutdowns, and procedures to follow in the event of a power outage
- isolation, lock-out and tag-out procedures and responsibilities
- procedures and responsibility for reporting production and performance information
- environmental issues and controls relevant to the coating process, including waste collection and handling procedures related to the process
- basic operating principles of process control, including the relationship between control panels and systems and the physical equipment
- cleaning and sanitation procedures for coating application equipment.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - a workplace or an environment that accurately represents workplace conditions
- resources, equipment and materials:
  - personal protective clothing and equipment
  - coating process and related equipment and services
  - coating materials and product
  - sampling schedules and test procedures and equipment
- specifications:
  - work procedures, including advice on safe work practices, food safety, quality and environmental requirements
  - information on equipment capacity and operating parameters
  - production schedule, batch/recipe instructions
  - documentation and recording requirements and procedures
  - cleaning procedures, materials and equipment.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volumes, including Implementation Guides, are available at VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>



# FBPOPR2032 Apply work procedures to maintain integrity of product

## Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 1.0

## Application

This unit of competency describes the skills and knowledge required to identify and handle materials to maintain integrity of products.

This unit applies to individuals who work under general supervision and exercise limited autonomy in a food processing environment.

All work must be carried out to comply with workplace procedures, in accordance with State/Territory work health and safety, and food safety regulations, legislation and standards that apply to the workplace.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

## Pre-requisite Unit

Nil

## Unit Sector

Operational (OPR)

## Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Identify materials and specifications for work	1.1 Identify materials required for work processes 1.2 Identify specifications and tests required to determine suitability of



Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
process	materials for work processes 1.3 Inspect or test materials according to operating procedures 1.4 Conduct work in accordance with workplace environmental guidelines 1.5 Reject and report out-of-specification materials according to operating procedures
2. Handle materials and products safely	2.1 Identify handling requirements for input materials and products of workstation or process according to work health and safety and food safety requirements 2.2 Handle materials and product according to work health and safety requirements 2.3 Maintain workplace in a clean and tidy order to meet workplace standards and avoid contamination
3. Maintain integrity of product during processing	3.1 Protect materials and products from contamination and exposure to pests 3.2 Follow product changeover procedures to avoid cross-contamination of products 3.3 Identify processes and conditions that are inconsistent with specifications and safety procedures, and take corrective action within level of responsibility 3.4 Restrict and monitor access to work area during processing according to workplace procedures
4. Maintain integrity of product post-processing	4.1 Conduct visual, metal scanning, and other contamination checks prior to packing and despatch 4.2 Check packing materials for cleanliness and integrity before use 4.3 Seal, pack or despatch product from work area according to product and process requirements
5. Comply with personal hygiene standards	5.1 Follow personal hygiene requirements appropriate to the process, product and workplace 5.2 Use clothing and personal protective equipment appropriate to the process, product and workplace

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"> <li>Interpret basic work instructions and procedures</li> </ul>
Writing	<ul style="list-style-type: none"> <li>Record testing, non-compliance and task-related information on paper-based and electronic media</li> </ul>
Numeracy	<ul style="list-style-type: none"> <li>Perform basic numerical calculations and estimations for checking and testing</li> </ul>
Navigate the world of work	<ul style="list-style-type: none"> <li>Apply workplace procedures to own role and responsibilities</li> <li>Understand tasks and responsibilities required for performing own role in the workplace</li> <li>Ask questions to clarify understanding or seek further information</li> </ul>
Interact with others	<ul style="list-style-type: none"> <li>Confirm work requirements and priority areas</li> <li>Communicate and report workplace activity and safety information to relevant personnel</li> </ul>
Get the work done	<ul style="list-style-type: none"> <li>Maintain a clean and hazard-free work area</li> <li>Maintain hygiene standards and wear required personal protective equipment</li> <li>Maintain quality requirements for the sanitisation and use of equipment</li> </ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPOPR2032 Apply work procedures to maintain integrity of product	FDFOP2062A Apply work procedures to maintain integrity of product	Updated to meet Standards for Training Packages	Equivalent unit

## Links

Companion Volumes, including Implementation Guides, are available at VETNet: - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>



## Assessment Requirements for FBPOPR2032 Apply work procedures to maintain integrity of product

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 1.0

### Performance Evidence

An individual demonstrating competency in this unit must satisfy all of the elements and performance criteria of this unit.

There must be evidence that the individual has applied work procedures to maintain integrity of product on at least one occasion, including:

- accessing and interpreting workplace information on materials and equipment used in production process
- examining production specifications
- identifying and inspecting materials and equipment
- handling, cleaning and storing equipment, containers, packaging materials and similar items according to the requirements of the work role
- wearing and maintaining appropriate clothing/footwear as required by work tasks and consistent with production, safety and product integrity requirements
- maintaining the work area in a clean and tidy state
- identifying and reporting signs of pest infestation
- conducting work in accordance with workplace environmental guidelines and work health and safety procedures
- following product changeover procedures to avoid cross-contamination of products.

### Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- requirements to maintain integrity of materials and finished products, including weight, consistency, sterility where applicable, and conformance to specifications
- potential sources of bacterial, chemical and physical contamination in own workplace
- sources of further advice and assistance in the workplace
- actions required in the event of events that actually or potentially compromise the integrity of products or materials

- storage and handling requirements for ingredients, materials and product used related to work role
- housekeeping requirements and responsibilities relating to own work, including use and storage of housekeeping/cleaning equipment
- procedures to follow in the event of pest sighting or discovery of infestation
- work health and safety hazards and controls relevant to handling materials to maintain integrity of products, including limitations of personal protective equipment.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - a workplace or an environment that accurately represents workplace conditions
- resources, equipment and materials:
  - personal protective clothing and equipment
  - materials required for production
  - process and related equipment and services
  - sampling schedules and test procedures and equipment
  - cleaning procedures, materials and equipment
- specifications:
  - work procedures, including advice on safe work practices, food safety, quality and environmental requirements
  - information on equipment capacity and operating parameters
  - specifications, control points and processing parameters
  - documentation and recording requirements and procedures.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volumes, including Implementation Guides, are available at VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## FBPOPR2033 Operate a depositing process

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 1.0

### Application

This unit of competency describes the skills and knowledge required to set up, operate, adjust and shut down a depositing process to deposit into tins, onto belts or directly onto product, where a further processing outcome is required.

This unit applies to individuals who work under general supervision and exercise limited autonomy in a food processing production environment. It typically applies to the production worker responsible for applying basic operating principles to the operation and monitoring of a depositing process and associated equipment.

All work must be carried out to comply with workplace procedures, in accordance with State/Territory work health and safety, and food safety regulations, legislation and standards that apply to the workplace.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

### Pre-requisite Unit

Nil

### Unit Sector

Operational (OPR)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare for work in depositing processing	1.1 Read or listen to work instructions from supervisor and clarify where needed

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
area	<p>1.2 Confirm materials are available to meet operating requirements</p> <p>1.3 Identify and confirm cleaning and maintenance requirements and status according to work health and safety and food safety requirements</p> <p>1.4 Wear appropriate personal protective clothing and ensure correct fit</p>
2. Prepare the depositing equipment and process for operation	<p>2.1 Fit machine components and related attachments and adjust to meet operating requirements</p> <p>2.2 Enter processing and operating parameters to meet safety and production requirements</p> <p>2.3 Check equipment performance and adjust according to production requirements</p> <p>2.4 Carry out pre-start checks according to work health and safety and operating procedures</p> <p>2.5 Transfer materials to depositing equipment according to workplace procedures</p>
3. Operate and monitor the depositing process	<p>3.1 Start, operate and monitor the depositing process for variation in operating conditions</p> <p>3.2 Monitor the depositing process to confirm that specifications are met</p> <p>3.3 Identify, rectify and report out-of-specification equipment, product or process outcomes according to workplace requirements</p> <p>3.4 Follow and apply workplace housekeeping and environmental working procedures</p>
4. Shut down the depositing process	<p>4.1 Identify the appropriate shutdown procedure</p> <p>4.2 Shut the process down according to work health and safety and operating procedures</p> <p>4.3 Identify and report maintenance requirements according to workplace procedures</p> <p>4.4 Maintain workplace records according to workplace procedures</p>

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"> <li>Interpret workplace and standard operating procedures relevant to job role</li> <li>Interpret production requirements</li> </ul>
Writing	<ul style="list-style-type: none"> <li>Record operating, routine maintenance and shutdown information on paper-based and electronic media</li> </ul>
Numeracy	<ul style="list-style-type: none"> <li>Monitor and interpret production and process control indicators and data</li> <li>Monitor supply and flow of materials to and from the process</li> </ul>
Navigate the world of work	<ul style="list-style-type: none"> <li>Apply workplace procedures to own role and responsibilities</li> <li>Identify skills, knowledge and experience required for performing own role in the workplace</li> <li>Ask questions to clarify understanding or seek further information</li> </ul>
Interact with others	<ul style="list-style-type: none"> <li>Communicate and report operational and safety information to relevant personnel</li> <li>Use modes of communication suitable to purpose to confirm understanding when conducting operational start-up and shutdown procedures</li> </ul>
Get the work done	<ul style="list-style-type: none"> <li>Access and interpret process control panels and system</li> <li>Maintain a clean and hazard-free work area</li> <li>Identify out-of-specification standards and maintain quality specifications</li> <li>Confirm equipment status and condition</li> <li>Interpret process and equipment information to monitor process and respond to abnormal performance and variations</li> </ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPOPR2033 Operate a depositing process	FDFOP2033A Operate a depositing process	Updated to meet Standards for Training Packages	Equivalent unit



## Links

Companion Volumes, including Implementation Guides, are available at VETNet -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# Assessment Requirements for FBOPR2033 Operate a depositing process

## Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 1.0

## Performance Evidence

An individual demonstrating competency in this unit must satisfy all of the elements and performance criteria of this unit.

There must be evidence that the individual has operated a depositing process on at least one occasion, including:

- accessing workplace information to identify depositing processing requirements
- selecting, fitting and using personal protective clothing and/or equipment
- confirming supply of necessary materials and services for production, including confirming condition of materials, including temperature, texture, appearance and holding times, prior to use
- conducting pre-start checks, including:
  - inspecting equipment condition to identify any signs of wear
  - selecting appropriate settings and/or related parameters
  - setting up depositor manifold and controls to meet production requirements and cancelling isolation or lock-outs
  - confirming that related equipment is clean and correctly configured for processing requirements
  - sensors and controls are correctly positioned
  - any scheduled maintenance has been carried out
  - all safety guards are in place and operational
- starting, operating, monitoring and adjusting depositing process equipment to achieve required outcomes, including monitoring control points and conducting inspections to confirm the process remains within specification, including:
  - maintaining supply of materials to hopper
  - controlling weights
  - checking dimensions and positioning of deposited material
  - visual inspections to identify faults, including unacceptable placement
  - checking pump stroke settings
  - checking line speed

- monitoring supply and flow of materials to and from the depositing process to confirm process remains within specification
- taking corrective action in response to out-of-specification results
- responding to and/or reporting equipment failure within level of responsibility
- locating emergency stop functions on equipment
- following isolation and lock-out/tag-out procedures to take depositing process and related equipment off-line in preparation for cleaning and/or maintenance within level of responsibility
- completing workplace records
- maintaining work area to meet housekeeping standards
- using process control systems according to workplace procedures
- cleaning and sanitising equipment according to workplace procedures
- following relevant work health and safety procedures.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- purpose and basic principles of the depositing process, including product preparation and conditioning requirements and product depositing
- basic operating principles of equipment used in the depositing process, including:
  - main equipment components
  - status and purpose of guards
  - equipment operating capacities and applications
  - the purpose and location of sensors and related feedback instrumentation
  - services required and action to take if services are not available
- the flow of the depositing process and the effect of outputs on downstream processes
- quality requirements of materials for depositing and the effect of variation on depositing process performance and outputs
- quality characteristics required of outputs from the depositing process
- operating requirements and parameters of the depositing process, and corrective action required where operation is outside specified operating parameters
- scope to adjust for weight variation within workplace quality parameters
- typical equipment faults and related causes, including signs and symptoms of faulty equipment and early warning signs of potential problems
- methods used to monitor the depositing process, including inspecting, measuring and testing by the process
- inspection or test points (control points) in the process and the related procedures and recording requirements
- contamination/food safety risks associated with the depositing process and related control measures
- common causes of variation in the operation of the depositing process and corrective action required

- work health and safety hazards and controls relevant to the operation of the depositing process
- requirements of different shutdowns as appropriate to the depositing process and workplace production requirements, including emergency and routine shutdowns, and procedures to follow in the event of a power outage
- isolation, lock-out and tag-out procedures and responsibilities required for the operation of the depositing process
- procedures and responsibility for reporting production and performance information
- environmental issues and controls relevant to the depositing process, including waste/rework collection and handling procedures related to the process
- basic operating principles of process control, including the relationship between control panels and systems and the physical equipment
- cleaning and sanitising procedures required for the depositing process.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - a workplace or an environment that accurately represents workplace conditions
- resources, equipment and materials:
  - personal protective clothing and equipment
  - depositing and related equipment
  - ingredients/mix to be deposited
  - recipe/batch instructions
- specifications:
  - work procedures, including advice on safe work practices, food safety, quality and environmental requirements
  - information on equipment capacity and operating parameters
  - specifications, control points and processing parameters
  - sampling schedules and test procedures and equipment
  - documentation and recording requirements and procedures
  - cleaning procedures, materials and equipment.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volumes, including Implementation Guides, are available at VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## FBPOPR2034 Operate an evaporation process

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 1.0

### Application

This unit of competency describes the skills and knowledge required to set up, operate, adjust and shut down an evaporation process.

This unit applies to individuals who work under general supervision and exercise limited autonomy in a food processing environment. It typically applies to the production worker responsible for applying basic operating principles to the operation and monitoring of an evaporation process and associated equipment.

All work must be carried out to comply with workplace procedures, in accordance with State/Territory work health and safety, and food safety regulations, legislation and standards that apply to the workplace.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

### Pre-requisite Unit

Nil

### Unit Sector

Operational (OPR)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare for work in processing area	1.1 Read or listen to work instructions from supervisor and clarify where needed 1.2 Confirm materials are available to meet operating and food safety

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	requirements 1.3 Identify and confirm cleaning and maintenance requirements and status 1.4 Wear appropriate personal protective clothing and ensure correct fit according to work health and safety requirements
2. Prepare the evaporation process for operation	2.1 Enter processing and operating parameters as required to meet safety and production requirements 2.2 Check equipment performance and adjust according to operating requirements 2.3 Carry out pre-start checks according to operator instructions
3. Operate and monitor the evaporation process	3.1 Start, operate and monitor the process for variation in operating conditions according to work health and safety and operating requirements 3.2 Identify variation in equipment operation and report maintenance requirements 3.3 Monitor the process to confirm that specifications are met 3.4 Identify, rectify and report out-of-specification equipment, product or process outcomes according to workplace requirements 3.5 Follow and apply workplace cleaning and environmental procedures
4. Shut down the evaporation process	4.1 Identify the appropriate shutdown procedure 4.2 Shut the process down safely according to operating procedures 4.3 Identify and report maintenance requirements 4.4 Maintain workplace records in appropriate format

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
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Skill	Description
Reading	<ul style="list-style-type: none"> <li>Interpret workplace and standard operating procedures relevant to job role</li> <li>Interpret production requirements</li> </ul>
Writing	<ul style="list-style-type: none"> <li>Record operating, routine maintenance and shutdown information on paper-based and electronic media</li> </ul>
Numeracy	<ul style="list-style-type: none"> <li>Monitor and interpret production and process control indicators and data</li> <li>Monitor supply and flow of materials to and from the process</li> </ul>
Navigate the world of work	<ul style="list-style-type: none"> <li>Apply workplace procedures to own role and responsibilities</li> <li>Identify skills, knowledge and experience required for performing own role in the workplace</li> <li>Ask questions to clarify understanding or seek further information</li> </ul>
Interact with others	<ul style="list-style-type: none"> <li>Communicate and report operational and safety information to relevant personnel</li> <li>Use modes of communication suitable to purpose to confirm understanding when conducting operational start-up and shutdown procedures</li> </ul>
Get the work done	<ul style="list-style-type: none"> <li>Access and interpret process control panels and system</li> <li>Maintain a clean and hazard-free work area</li> <li>identify out-of-specification standards and maintain quality specifications</li> <li>Confirm equipment status and condition</li> <li>Interpret process and equipment information to monitor process and respond to abnormal performance and variations</li> </ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPOPR2034 Operate an evaporation process	FDFOP2034A Operate an evaporation process	Updated to meet Standards for Training Packages	Equivalent unit

## Links

Companion Volumes, including Implementation Guides, are available at VETNet -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>



## Assessment Requirements for FBOPR2034 Operate an evaporation process

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 1.0

### Performance Evidence

An individual demonstrating competency in this unit must satisfy all of the elements and performance criteria of this unit.

There must be evidence that the individual has operated an evaporation process on at least one occasion, including:

- accessing workplace information to identify processing requirements
- selecting, fitting and using personal protective clothing and/or equipment
- confirming supply of necessary materials and services
- preparing materials for an evaporation process
- conducting pre-start checks, including:
  - inspecting equipment condition to identify any signs of wear
  - selecting appropriate settings and/or related parameters
  - cancelling isolation or lock-outs as required
  - confirming that equipment is clean and correctly configured for processing requirements
  - positioning sensors and controls correctly
  - ensuring any scheduled maintenance has been carried out
  - confirming that all safety guards are in place and operational
- starting, operating, monitoring and adjusting evaporation equipment to achieve required outcomes, including monitoring control points and conducting inspections as required to confirm process remains within specification, including:
  - temperatures
  - vacuum
  - motor amperage
  - condensate flow
  - steam flow and pressure
  - throughput
  - time/speed

- evaporated product characteristics
- monitoring supply and flow of materials to and from the evaporation process
- taking corrective action in response to out-of-specification results
- reporting and/or recording corrective action as required
- locating emergency stop functions on equipment
- following isolation and lock-out/tag-out procedures as required to take process and related equipment off-line in preparation for cleaning and/or maintenance within level of responsibility
- preparing equipment for cleaning
- responding to and/or reporting equipment failure within level of responsibility
- completing workplace records as required
- maintaining work area to meet housekeeping standards
- using process control systems according to workplace procedures
- cleaning and sanitising equipment according to workplace procedures
- following relevant work health and safety procedures.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- purpose and basic principles of evaporation, including:
  - an understanding of the principles of steam
  - the relationship between boiling point and pressure as applied to evaporation
  - the changes that occur to product as it moves through the evaporation process
- basic operating principles of evaporation equipment, including:
  - main equipment components
  - status and purpose of guards
  - equipment operating capacities and applications
  - the purpose and location of sensors and related feedback instrumentation
- quality characteristics to be achieved by the evaporation process
- the flow of the evaporation process and the effect of product output on downstream processes
- quality requirements of materials and the effect of variation on process performance
- operating requirements and parameters and corrective action required where operation is outside specified operating parameters
- typical equipment faults and related causes, including signs and symptoms of faulty equipment and early warning signs of potential problems
- techniques used to monitor the evaporation process, including inspecting, measuring and testing as required by the process
- inspection or test points (control points) in the process and the related procedures and recording requirements
- contamination/food safety risks associated with the process and related control measures relevant to the evaporation process

- common causes of variation and corrective action required
- work health and safety hazards and controls relevant to the evaporation process
- requirements of different shutdowns as appropriate to the process and workplace production requirements, including emergency and routine shutdowns and procedures to follow in the event of a power outage
- isolation, lock-out and tag-out procedures and responsibilities
- procedures and responsibility for reporting production and performance information
- environmental issues and controls relevant to the evaporation process, including waste/rework collection and handling procedures related to the process
- basic operating principles of process control, including the relationship between control panels and systems and the physical equipment
- cleaning and sanitation procedures for evaporation equipment.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - a workplace or an environment that accurately represents workplace conditions
- resources, equipment and materials:
  - personal protective clothing and equipment
  - evaporation process and related equipment and services
  - materials to be evaporated
  - sampling schedules and test procedures and equipment
  - cleaning procedures, materials and equipment
- specifications:
  - work procedures including advice on safe work practices, food safety, quality and environmental requirements
  - information on equipment capacity and operating parameters
  - production schedule, batch/recipe instructions
  - documentation and recording requirements and procedures.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volumes, including Implementation Guides, are available at VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## FBPOPR2035 Operate an enrobing process

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 1.0

### Application

This unit of competency describes the skills and knowledge required to set up, operate, adjust and shut down an enrobing process.

This unit applies to individuals who work under general supervision and exercise limited autonomy in a food processing environment. It typically applies to the production worker responsible for applying basic operating principles to the operation and monitoring of an enrobing process and associated equipment.

All work must be carried out to comply with workplace procedures, in accordance with State/Territory work health and safety, and food safety regulations, legislation and standards that apply to the workplace.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

### Pre-requisite Unit

Nil

### Unit Sector

Operational (OPR)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare for work in processing area	1.1 Confirm tempered chocolate is available for enrobing, and condition centres/bars as required to meet operating requirements 1.2 Identify and confirm cleaning and maintenance requirements and

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	status according to work health and safety and food safety requirements 1.3 Wear appropriate personal protective clothing and ensure correct fit
2. Prepare the enrobing equipment and process for operation	2.1 Fit and adjust machine components and related attachments to meet operating requirements 2.2 Enter processing/operating parameters as required to meet safety and production requirements 2.3 Check and adjust equipment performance according to operating requirements 2.4 Carry out pre-start checks according to work health and safety and operating requirements
3. Operate and monitor the enrobing process	3.1 Start, operate and monitor the enrobing process for variation in operating conditions 3.2 Monitor the process to confirm that specifications are met 3.3 Identify, rectify and report out-of-specification equipment, product and process outcomes according to workplace requirements 3.4 Follow and apply workplace housekeeping and environmental procedures
4. Shut down the enrobing process	4.1 Identify the appropriate shutdown procedure 4.2 Shut down the process according to work health and safety and operating requirements 4.3 Identify and report maintenance requirements according to workplace procedures 4.4 Maintain workplace records according to workplace procedures

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
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Skill	Description
Reading	<ul style="list-style-type: none"> <li>Interpret workplace and standard operating procedures relevant to job role</li> <li>Interpret production requirements</li> </ul>
Writing	<ul style="list-style-type: none"> <li>Record operating, routine maintenance and shutdown information on paper-based and electronic media</li> </ul>
Numeracy	<ul style="list-style-type: none"> <li>Monitor and interpret production and process control indicators and data</li> <li>Monitor supply and flow of materials to and from the process</li> </ul>
Navigate the world of work	<ul style="list-style-type: none"> <li>Apply workplace procedures to own role and responsibilities</li> <li>Identify skills, knowledge and experience required for performing own role in the workplace</li> <li>Ask questions to clarify understanding or seek further information</li> </ul>
Interact with others	<ul style="list-style-type: none"> <li>Communicate and report operational and safety information to relevant personnel</li> <li>Use modes of communication suitable to purpose to confirm understanding when conducting operational start-up and shutdown procedures</li> </ul>
Get the work done	<ul style="list-style-type: none"> <li>Access and interpret process control panels and system</li> <li>Maintain a clean and hazard-free work area</li> <li>Identify out-of-specification standards and maintain quality specifications</li> <li>Confirm equipment status and condition</li> <li>Interpret process and equipment information to monitor process and respond to abnormal performance and variations</li> </ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPOPR2035 Operate an enrobing process	FDFOP2035A Operate an enrobing process	Updated to meet Standards for Training Packages	Equivalent unit

## Links

Companion Volumes, including Implementation Guides, are available at VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>



## Assessment Requirements for FBPOPR2035 Operate an enrobing process

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 1.0

### Performance Evidence

An individual demonstrating competency in this unit must satisfy all of the elements and performance criteria of this unit.

There must be evidence that the individual has operated an enrobing process on at least one occasion, including:

- accessing workplace information to identify enrobing process requirements
- selecting, fitting and using personal protective clothing and/or equipment
- confirming supply of tempered chocolate and the relevant centres/biscuits are available at the correct temperature
- conducting pre-start checks, including:
  - inspecting equipment condition to identify any signs of wear
  - selecting appropriate settings and/or related parameters
  - cancelling isolation or lock-outs as required
  - confirming that equipment is clean and correctly configured for processing requirements
  - positioning sensors and controls correctly
  - ensuring any scheduled maintenance has been carried out
  - confirming that all safety guards are in place and operational
- starting, operating, monitoring and adjusting enrobing process equipment to achieve required outcomes, including monitoring control points and conducting inspections as required to confirm process remains within specification, including:
  - supply of chocolate to the enrobing reservoir
  - temperatures of chocolate and pipelines
  - chocolate temper
  - chocolate supply pump speed
  - curtain flow
  - blower and vibrator settings
  - temperature profile of cooling tunnel



- chocolate coverage
- backing off and tailing
- product weight
- appearance
- cooling temperatures
- monitoring supply and flow of materials to and from the enrobing process and equipment operation to confirm process remains within specification
- taking corrective action in response to out-of-specification results
- responding to and/or reporting equipment failure within level of responsibility
- locating emergency stop functions on equipment
- following isolation and lock-out/tag-out procedures as required to take enrobing process and related equipment off-line in preparation for cleaning and/or maintenance within level of responsibility
- completing workplace records as required
- maintaining work area to meet housekeeping standards
- using process control systems according to workplace procedures
- cleaning and sanitising equipment according to workplace procedures.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- purpose and basic principles of the enrobing process, including the effect of chocolate viscosity on enrobing, and types of chocolate suitable/used for coverage and backing off
- basic operating principles of equipment used for the enrobing process, including:
  - main equipment components
  - status and purpose of guards
  - equipment operating capacities and applications
  - the purpose and location of sensors and related feedback instrumentation
- services required for the enrobing process and action to take if services are not available
- the flow of the enrobing process and the effect of outputs on downstream processes
- conditioning requirements for centres/bars/biscuits and chocolate, including understanding of temper test procedures
- quality characteristics of centres/bars/biscuits and chocolate for use in the enrobing process and the effect of variation on process performance and outputs
- quality characteristics to be achieved by the enrobing process
- operating requirements and parameters, and corrective action required where operation is outside specified operating parameters
- typical equipment faults and related causes, including signs and symptoms of faulty equipment and early warning signs of potential problems
- methods used to monitor the enrobing process, including inspecting, measuring and testing as required by the process

- inspection or test points (control points) in the process and the related procedures and recording requirements
- contamination/food safety risks associated with the enrobing process and related control measures
- common causes of variation for the operation of the enrobing process and corrective action required
- work health and safety hazards and controls relevant to the operation of the enrobing process
- requirements of different shutdowns as appropriate to the enrobing process and workplace production requirements, including emergency and routine shutdowns and procedures to follow in the event of a power outage
- isolation, lock-out and tag-out procedures and responsibilities required for the operation of the enrobing process
- procedures and responsibility for reporting production and performance information
- environmental issues and controls relevant to the enrobing process, including waste/rework collection and handling procedures related to the process
- basic operating principles of process control, including the relationship between control panels and systems and the physical equipment
- cleaning and sanitising procedures required for the enrobing process.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - a workplace or an environment that accurately represents workplace conditions
- resources, equipment and materials:
  - personal protective clothing and equipment
  - process and related equipment and services, including enrober and cooling equipment
  - materials to be processed, including tempered chocolate and conditioned centres to be enrobed
  - cleaning procedures, materials and equipment
- specifications:
  - work procedures, including advice on safe work practices, food safety, quality and environmental requirements
  - information on equipment capacity and operating parameters
  - recipe/batch instructions
  - specifications, control points and processing parameters
  - sampling schedules and test procedures and equipment.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volumes, including Implementation Guides, are available at VETNet -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## FBPOPR2036 Operate an extrusion process

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 1.0

### Application

This unit of competency describes the skills and knowledge required to set up, operate, adjust and shut down an extrusion process.

This unit applies to individuals who work under general supervision and exercise limited autonomy in a food processing environment. It typically applies to the production worker responsible for applying basic operating principles to the operation and monitoring of an extrusion process and associated equipment.

All work must be carried out to comply with workplace procedures, in accordance with State/Territory work health and safety, and food safety regulations, legislation and standards that apply to the workplace.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

### Pre-requisite Unit

Nil

### Unit Sector

Operational (OPR)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare for work in extrusion processing area	1.1 Confirm materials are available to meet operating requirements 1.2 Identify and confirm cleaning and maintenance requirements and

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	<p>status according to work health and safety and food safety requirements</p> <p>1.3 Wear appropriate personal protective clothing and ensure correct fit</p>
2. Prepare the extrusion equipment and process for operation	<p>2.1 Enter processing and operating parameters as required to meet safety and production requirements</p> <p>2.2 Check equipment performance and adjust according to production requirements</p> <p>2.3 Carry out pre-start checks according to work health and safety and operating procedures</p>
3. Operate and monitor the extrusion process	<p>3.1 Deliver ingredients and additives to the extrusion process in the required quantities and sequence</p> <p>3.2 Monitor preparation of the mass to confirm that specifications are met and mass is suitable for extrusion</p> <p>3.3 Start, operate and monitor the extrusion process for variation in operating conditions according to workplace procedures</p> <p>3.4 Identify, rectify and report out-of-specification equipment, product or process outcomes according to workplace requirements</p> <p>3.5 Follow and apply workplace housekeeping and environmental procedures</p>
4. Shut down the extrusion process	<p>4.1 Identify the appropriate shutdown procedure</p> <p>4.2 Shut down the process according to work health and safety and operating procedures</p> <p>4.3 Identify and report maintenance requirements according to workplace procedures</p> <p>4.4 Maintain workplace records according to workplace procedures</p>

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"> <li>Interpret workplace and standard operating procedures relevant to job role</li> <li>Interpret production requirements</li> </ul>
Writing	<ul style="list-style-type: none"> <li>Record operating, routine maintenance and shutdown information on paper-based and electronic media</li> </ul>
Numeracy	<ul style="list-style-type: none"> <li>Monitor and interpret production and process control indicators and data</li> <li>Monitor supply and flow of materials to and from the process</li> </ul>
Navigate the world of work	<ul style="list-style-type: none"> <li>Apply workplace procedures to own role and responsibilities</li> <li>Identify skills, knowledge and experience required for performing own role in the workplace</li> <li>Ask questions to clarify understanding or seek further information</li> </ul>
Interact with others	<ul style="list-style-type: none"> <li>Communicate and report operational and safety information to relevant personnel</li> <li>Use modes of communication suitable to purpose to confirm understanding when conducting operational start-up and shutdown procedures</li> </ul>
Get the work done	<ul style="list-style-type: none"> <li>Access and interpret process control panels and system</li> <li>Maintain a clean and hazard-free work area</li> <li>Identify out-of-specification standards and maintain quality specifications</li> <li>Confirm equipment status and condition</li> <li>Interpret process and equipment information to monitor process and respond to abnormal performance and variations</li> </ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPOPR2036 Operate an extrusion process	FDFOP2036A Operate an extrusion process	Updated to meet Standards for Training Packages	Equivalent unit

## Links

Companion Volumes, including Implementation Guides, are available at VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>



# Assessment Requirements for FBPOPR2036 Operate an extrusion process

## Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 1.0

## Performance Evidence

An individual demonstrating competency in this unit must satisfy all of the elements and performance criteria of this unit.

There must be evidence that the individual has operated an extrusion process on at least one occasion, including:

- accessing workplace information to identify processing requirements
- selecting, fitting and using personal protective clothing and/or equipment
- confirming supply of necessary materials/ingredients and services
- conducting pre-start checks, including:
  - inspecting equipment condition to identify any signs of wear
  - selecting and fitting appropriate attachments where required
  - setting processing parameters
  - cancelling isolation or lock-outs as required
  - confirming that equipment is clean and correctly configured for processing requirements
  - positioning sensors and controls correctly
  - ensuring any scheduled maintenance has been carried out
  - confirming that all safety guards are in place and operational
- starting, operating, monitoring and adjusting process equipment to achieve required outcomes, including monitoring control points and conducting inspections as required at each stage of the extrusion process to confirm process remains within specification, including:
  - parameters, including throughput
  - load/work input as measured by rpm (revolutions per minute)
  - kilowatts
  - amps and/or Hz (hertz) at each stage of the process
- monitoring supply of materials to and from the extrusion process
- taking corrective action in response to out-of-specification results



- responding to and/or reporting equipment failure within level of responsibility
- locating emergency stop functions on equipment
- following isolation and lock-out/tag-out procedures as required to take process and related equipment off-line in preparation for cleaning and/or maintenance within level of responsibility
- completing workplace records as required
- maintaining work area to meet housekeeping standards
- using process control systems according to workplace procedures
- cleaning and sanitising equipment according to workplace procedures
- following relevant work health and safety procedures.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- purpose and basic principles of each part of the process, including the purpose and methods used to achieve each stage of the extrusion process
- basic operating principles of equipment used for the extrusion process, including:
  - main equipment components
  - status and purpose of guards
  - equipment operating capacities and applications
  - the purpose and location of sensors and related feedback instrumentation
- services required for the extrusion process and action to take if services are not available
- the flow of the extrusion process and the effect of outputs on downstream processes
- quality characteristics of extruded output, including required characteristics of mass or blend to be extruded, including:
  - gelatinisation and viscosity
  - dimensions, texture and hardness of extruded product
  - moisture content
- effect of variation in inputs and/or services on process performance
- operating requirements and parameters and corrective action required where operation is outside specified operating parameters, including the effect of variation in key variables, including:
  - throughput and work input at each stage of the process
  - effect of time and temperature
  - barrel pressures and temperatures at each zone
- typical equipment faults for the extrusion process and related causes, including signs and symptoms of faulty equipment and early warning signs of potential problems, including:
  - screw and barrel assembly wear
  - die plate wear
  - wear of conditioner paddles
  - extruder knife condition

- methods used to monitor the extrusion process, including inspecting, measuring and testing as required by the process
- inspection or test points (control points) in the process and the related procedures and recording requirements
- common causes of variation in the operation of the extrusion process and corrective action required
- contamination risks related to the extrusion process and related control measures
- work health and safety hazards and controls relevant to the operation of the extrusion process
- requirements of different shutdowns as appropriate to the process and workplace production requirements, including emergency and routine shutdowns and procedures to follow in the event of a power outage
- isolation, lock-out and tag-out procedures and responsibilities required for the operation of the extrusion process
- procedures and responsibility for reporting production and performance information
- environmental issues and controls relevant to the extrusion process, including waste/rework collection and handling procedures related to the process
- basic operating principles of process control, including the relationship between control panels and systems and the physical equipment
- cleaning and sanitation procedures required for the extrusion process.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - a workplace or an environment that accurately represents workplace conditions
- resources, equipment and materials:
  - personal protective clothing and equipment
  - extrusion and related equipment and services
  - ingredients/blend/mass to be extruded
  - sampling schedules and test procedures and equipment
  - cleaning procedures, materials and equipment
- specifications:
  - work procedures, including advice on safe work practices, food safety, quality and environmental requirements
  - information on equipment capacity and operating parameters
  - production schedule/batch instructions
  - specifications, control points and processing parameters
  - documentation and recording requirements and procedures.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volumes, including Implementation Guides, are available at VETNet -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## FBPOPR2037 Operate a filtration process

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 1.0

### Application

This unit of competency describes the skills and knowledge required to set up, operate, adjust and shut down a filtration process.

This unit applies to individuals who work under general supervision and exercise limited autonomy in a food processing environment. It typically applies to the production worker responsible for applying basic operating principles to the operation and monitoring of a filtration process and associated equipment.

All work must be carried out to comply with workplace procedures, in accordance with State/Territory work health and safety, and food safety regulations, legislation and standards that apply to the workplace.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

### Pre-requisite Unit

Nil

### Unit Sector

Operational (OPR)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare for work in filtration processing area	1.1 Confirm materials are available to meet operating requirements 1.2 Identify and confirm cleaning and maintenance requirements and status according to work health and safety and food safety

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	requirements 1.3 Wear appropriate personal protective clothing and ensure correct fit
2. Prepare the filtration equipment and process for operation	2.1 Fit and adjust machine components and related attachments to meet operating requirements 2.2 Enter processing and operating parameters to meet safety and production requirements 2.3 Check equipment performance and adjust according to production requirements 2.4 Carry out pre-start checks according to work health and safety and operating procedures
3. Operate and monitor the filtration process	3.1 Start, operate and monitor the filtration process for variation in operating conditions 3.2 Confirm separation of solids from solution meets specifications 3.3 Monitor the process to confirm that specifications are met 3.4 Identify, rectify and report out-of-specification equipment, product or process outcomes according to workplace requirements 3.5 Follow and apply workplace housekeeping and environmental procedures
4. Shut down the filtration process	4.1 Identify the appropriate shutdown procedure 4.2 Shut down the process according to work health and safety and operating procedures 4.3 Identify and report maintenance requirements according to workplace procedures 4.4 Maintain workplace records according to workplace procedures

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
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Skill	Description
Reading	<ul style="list-style-type: none"> <li>Interpret workplace and standard operating procedures relevant to job role</li> <li>Interpret production requirements</li> </ul>
Writing	<ul style="list-style-type: none"> <li>Record operating, routine maintenance and shutdown information on paper-based and electronic media</li> </ul>
Numeracy	<ul style="list-style-type: none"> <li>Monitor and interpret production and process control indicators and data</li> <li>Monitor supply and flow of materials to and from the process</li> </ul>
Navigate the world of work	<ul style="list-style-type: none"> <li>Apply workplace procedures to own role and responsibilities</li> <li>Identify skills, knowledge and experience required for performing own role in the workplace</li> <li>Ask questions to clarify understanding or seek further information</li> </ul>
Interact with others	<ul style="list-style-type: none"> <li>Communicate and report operational and safety information to relevant personnel</li> <li>Use modes of communication suitable to purpose to confirm understanding when conducting operational start-up and shutdown procedures</li> </ul>
Get the work done	<ul style="list-style-type: none"> <li>Access and interpret process control panels and system</li> <li>Maintain a clean and hazard-free work area</li> <li>Identify out-of-specification standards and maintain quality specifications</li> <li>Confirm equipment status and condition</li> <li>Interpret process and equipment information to monitor process and respond to abnormal performance and variations</li> </ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPOPR2037 Operate a filtration process	FDFOP2037A Operate a filtration process	Updated to meet Standards for Training Packages	Equivalent unit

## Links

Companion Volumes, including Implementation Guides, are available at VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>



# Assessment Requirements for FBPOPR2037 Operate a filtration process

## Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 1.0

## Performance Evidence

An individual demonstrating competency in this unit must satisfy all of the elements and performance criteria of this unit.

There must be evidence that the individual has operated a filtration process on at least one occasion, including:

- accessing workplace information to identify filtration processing requirements
- selecting, fitting and using personal protective clothing and/or equipment
- confirming supply of necessary materials and services
- conducting pre-start checks, including:
  - inspecting equipment condition to identify any signs of wear
  - selecting and fitting appropriate screens and equipment components
  - selecting settings and/or related parameters
  - cancelling isolation or lock-outs as required
  - positioning sensors and controls correctly
  - ensuring any scheduled maintenance has been carried out
  - confirming that all safety guards are in place and operational
- starting, operating, monitoring and adjusting filtration process and equipment to achieve required outcomes, including:
  - flow rates
  - residence time
  - solids for in-feeds and out-feeds (this is typically done by conducting a spin test)
- monitoring supply and flow of materials to and from the filtration process
- taking corrective action in response to out-of-specification results, including identifying and responding to sieve or screen blockages or tears
- identifying and/or reporting equipment faults, including confirming condition screens and sieves and replacing damaged components within level of responsibility
- locating emergency stop functions on equipment



- follow isolation and lock-out/tag-out procedures to take filtration and related equipment off-line in preparation for cleaning and/or maintenance within level of responsibility
- cleaning and sanitising filtration equipment
- completing workplace records
- maintaining work area to meet housekeeping standards
- using process control systems according to workplace procedures
- following relevant work health and safety procedures.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- purpose and basic principles of filtration, including stages and changes that occur during filtration
- basic operating principles of filtration equipment, including:
  - main equipment components
  - status and purpose of guards
  - equipment operating capacities and applications, including relevant screens and sieves by filtration equipment
  - the purpose and location of sensors and related feedback instrumentation
- services required for operation of filtration equipment used in the workplace
- the flow of the filtration process and the effect of product output on downstream processes
- effect of raw material characteristics on filtration performance
- quality characteristics required of filtration process output
- test methods used to monitor solids in in-feed and out-feed streams
- operating requirements and parameters for the filtration process and corrective action required where operation is outside specified operating parameters
- typical equipment faults and related causes, including signs and symptoms of faulty equipment and early warning signs of potential problems, including screen or sieve damage
- common causes of variation in the operation of the filtration process and corrective action required
- spoilage and other food safety risks associated with filtration
- work health and safety hazards and controls, including the limitations of protective clothing and equipment relevant to the work process
- requirements of different shutdowns as appropriate to the filtration process and workplace production requirements, including emergency and routine shutdowns, and procedures to follow in the event of a power outage
- cleaning procedures appropriate for the range of filtration components used
- isolation, lock-out and tag-out procedures and responsibilities required for the operation of the filtration process
- cleaning and sanitising methods and procedures required for the filtration process
- procedures and responsibility for reporting production and performance information

- environmental issues and controls relevant to filtration, including handling of effluent
- basic operating principles of process control, where relevant, including the relationship between control panels and systems and the physical equipment.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - a workplace or an environment that accurately represents workplace conditions
- resources, equipment and materials:
  - personal protective clothing and equipment
  - filtration and related equipment and services
  - materials required for filtration
  - sampling schedules and test procedures and equipment as required
  - cleaning procedures, materials and equipment
- specifications:
  - work procedures, including advice on safe work practices, food safety, quality and environmental requirements, stock flow systems, production schedules, and batch/recipe instructions
  - information on equipment capacity and operating parameters
  - production schedule/batch instructions
  - documentation and recording requirements and procedures.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volumes, including Implementation Guides, are available at VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## FBPOPR2038 Operate a grinding process

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 1.0

### Application

This unit of competency describes the skills and knowledge required to set up, operate, adjust and shut down a grinding process.

This unit applies to individuals who work under general supervision and exercise limited autonomy in a food processing environment. It typically applies to the production worker responsible for applying basic operating principles to the operation and monitoring of a grinding process and associated equipment.

All work must be carried out to comply with workplace procedures, in accordance with State/Territory work health and safety, and food safety regulations, legislation and standards that apply to the workplace.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

### Pre-requisite Unit

Nil

### Unit Sector

Operational (OPR)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare for work in grinding processing area	1.1 Read or listen to work instructions from supervisor and clarify where needed

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	<p>1.2 Confirm materials are available to meet operating requirements</p> <p>1.3 Identify and confirm cleaning and maintenance requirements and status according to work health and safety and food safety requirements</p> <p>1.4 Wear appropriate personal protective clothing and ensure correct fit</p>
2. Prepare the grinding equipment and process for operation	<p>2.1 Fit and adjust machine components and related attachments to meet operating requirements</p> <p>2.2 Enter processing and operating parameters as required to meet safety and production requirements</p> <p>2.3 Check equipment performance and adjust according to production requirements</p> <p>2.4 Carry out pre-start checks according to work health and safety and operating procedures</p>
3. Operate and monitor the grinding process	<p>3.1 Start, operate and monitor the grinding process for variation in operating conditions</p> <p>3.2 Monitor the process to confirm that specifications are met</p> <p>3.3 Identify, rectify and report out-of-specification equipment, product or process outcomes according to workplace requirements</p> <p>3.4 Follow and apply workplace housekeeping and environmental procedures</p>
4. Shut down the grinding process	<p>4.1 Identify the appropriate shutdown procedure</p> <p>4.2 Shut down the process according to work health and safety and operating procedures</p> <p>4.3 Identify and report maintenance requirements according to workplace procedures</p> <p>4.4 Maintain workplace records according to workplace procedures</p>

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"> <li>Interpret workplace and standard operating procedures relevant to job role</li> <li>Interpret production requirements</li> </ul>
Writing	<ul style="list-style-type: none"> <li>Record operating, routine maintenance and shutdown information on paper-based and electronic media</li> </ul>
Numeracy	<ul style="list-style-type: none"> <li>Monitor and interpret production and process control indicators and data</li> <li>Monitor supply and flow of materials to and from the process</li> </ul>
Navigate the world of work	<ul style="list-style-type: none"> <li>Apply workplace procedures to own role and responsibilities</li> <li>Identify skills, knowledge and experience required for performing own role in the workplace</li> <li>Ask questions to clarify understanding or seek further information</li> </ul>
Interact with others	<ul style="list-style-type: none"> <li>Communicate and report operational and safety information to relevant personnel</li> <li>Use modes of communication suitable to purpose to confirm understanding when conducting operational start-up and shutdown procedures</li> </ul>
Get the work done	<ul style="list-style-type: none"> <li>Access and interpret process control panels and system</li> <li>Maintain a clean and hazard-free work area</li> <li>Identify out-of-specification standards and maintain quality specifications</li> <li>Confirm equipment status and condition</li> <li>Interpret process and equipment information to monitor process and respond to abnormal performance and variations</li> </ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPOPR2038 Operate a grinding process	FDFOP2038A Operate a grinding process	Updated to meet Standards for Training Packages	Equivalent unit

## Links

Companion Volumes, including Implementation Guides, are available at VETNet -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# Assessment Requirements for FBPOPR2038 Operate a grinding process

## Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 1.0

## Performance Evidence

An individual demonstrating competency in this unit must satisfy all of the elements and performance criteria of this unit.

There must be evidence that the individual has operated a grinding process on at least one occasion, including:

- accessing workplace information to identify processing requirements
- selecting, fitting and using personal protective clothing and/or equipment
- confirming supply of necessary materials and services to the grinding process
- conducting pre-start checks, including:
  - inspecting equipment condition to identify any signs of wear
  - selecting appropriate settings and/or related parameters
  - cancelling isolation or lock-outs as required
  - confirming that equipment is clean and correctly configured for processing requirements
  - positioning sensors and controls correctly
  - ensuring any scheduled maintenance has been carried out
  - confirming that all safety guards are in place and operational
- operating stockfeed control panel to transfer and grind product
- monitoring and adjusting the grinding process and equipment operation to achieve required outcomes, including:
  - monitoring control points and conducting inspections as required to confirm process remains within specification
  - running adjustments to hammer mills and roller mills
- monitoring supply and flow of materials to and from the grinding process
- taking corrective action in response to out-of-specification results
- responding to and/or reporting equipment failure within level of responsibility
- locating emergency stop functions on equipment

- following isolation and lock-out/tag-out procedures as required to take process and related equipment off-line in preparation for cleaning and/or maintenance within level of responsibility
- completing workplace records as required
- sorting, collecting, treating, recycling or disposing of waste
- maintaining work area to meet housekeeping standards
- cleaning and sanitising equipment according to workplace procedures
- following relevant work health and safety procedures.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- purpose and basic principles of the grinding process, including the characteristics of materials, which can be reduced to a suitable form for product, including stockfeed
- basic operating principles of equipment used to operate the grinding process, including:
  - main equipment components
  - bulk materials transfer systems and equipment
  - dust collection equipment
  - grinding equipment operating capacities and applications
  - the purpose and location of magnets, sensors and related feedback instrumentation
- services required for the grinding process and action to take if services are not available
- basic operating principles of process control, including the relationship between control panels and systems and the physical equipment
- the flow of the grinding process and the effect of product output on downstream processes
- quality characteristics and uses of grinding process outputs
- effect of the grinding process on the end product
- effect of raw material characteristics on grinding process performance
- operating requirements and parameters and corrective action required where operation is outside specified operating parameters
- typical equipment faults related to the grinding process and related causes, including signs and symptoms of faulty equipment and early warning signs of potential problems
- techniques used to monitor the production process, including inspecting, measuring and testing as required by the process
- inspection or test points (control points) in the process and the related procedures and recording requirements
- contamination/food safety risks associated with the grinding process and related control measures
- common causes of variation for the grinding process and corrective action required
- work health and safety hazards and controls related to the grinding process, including:
  - the risk of dust explosion
  - an understanding of the limitations of protective clothing and equipment relevant to the work process



- requirements of different shutdowns as appropriate to the process and workplace production requirements, including emergency and routine shutdowns, and procedures to follow in the event of a power outage
- isolation, lock-out and tag-out procedures and responsibilities required for the operation of the grinding process
- procedures and responsibility for reporting production and performance information
- environmental issues and controls relevant to the process, including waste/rework collection and handling procedures related to the process
- cleaning and sanitation procedures required for the operation of the grinding process.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - a workplace or an environment that accurately represents workplace conditions
- resources, equipment and materials:
  - personal protective clothing and equipment
  - grinding and related equipment and services
  - stock required for the grinding process
  - sampling schedules and test procedures and equipment as required
  - cleaning procedures, materials and equipment
- specifications:
  - work procedures, including advice on safe work practices, food safety, quality and environmental requirements, stock flow systems, production schedules, batch/recipe instructions
  - specifications, control points and processing parameters
  - production schedule/batch instructions
  - information on equipment capacity and operating parameters
  - documentation and recording requirements and procedures.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volumes, including Implementation Guides, are available at VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## FBPOPR2039 Operate a frying process

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 1.0

### Application

This unit of competency describes the skills and knowledge required to set up, operate, adjust and shut down a frying process.

This unit applies to individuals who work under general supervision and exercise limited autonomy in a food processing environment. It typically applies to the production worker responsible for applying basic operating principles to the operation and monitoring of a frying process and associated equipment.

All work must be carried out to comply with workplace procedures, in accordance with State/Territory work health and safety, and food safety regulations, legislation and standards that apply to the workplace.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

### Pre-requisite Unit

Nil

### Unit Sector

Operational (OPR)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare for work in frying processing area	1.1 Confirm frying oil and product are available to meet operating requirements 1.2 Identify and confirm cleaning and maintenance requirements and

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	status according to work health and safety and food safety requirements 1.3 Wear appropriate personal protective clothing and ensure correct fit
2. Prepare the frying process for operation	2.1 Fit and adjust machine components and related attachments to meet operating requirements 2.2 Enter processing and operating parameters as required to meet safety and production requirements 2.3 Check equipment performance and adjust according to production requirements 2.4 Carry out pre-start checks according to work health and safety and operating procedures
3. Operate and monitor the frying process	3.1 Start, operate and monitor the process for variation in operating conditions 3.2 Monitor the process to confirm that specifications are met 3.3 Identify, rectify and report out-of-specification equipment, product or process outcomes according to workplace requirements 3.4 Follow and apply workplace housekeeping and environmental procedures
4. Shut down the frying process	4.1 Identify the appropriate shutdown procedure 4.2 Shut down the process according to work health and safety and operating procedures 4.3 Identify and report maintenance requirements according to workplace procedures 4.4 Maintain workplace records according to workplace procedures

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
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Skill	Description
Reading	<ul style="list-style-type: none"> <li>Interpret workplace and standard operating procedures relevant to job role</li> <li>Interpret production requirements</li> </ul>
Writing	<ul style="list-style-type: none"> <li>Record operating, routine maintenance and shutdown information on paper-based and electronic media</li> </ul>
Numeracy	<ul style="list-style-type: none"> <li>Monitor and interpret production and process control indicators and data</li> <li>Monitor supply and flow of materials to and from the process</li> </ul>
Navigate the world of work	<ul style="list-style-type: none"> <li>Apply workplace procedures to own role and responsibilities</li> <li>Identify skills, knowledge and experience required for performing own role in the workplace</li> <li>Ask questions to clarify understanding or seek further information</li> </ul>
Interact with others	<ul style="list-style-type: none"> <li>Communicate and report operational and safety information to relevant personnel</li> <li>Use modes of communication suitable to purpose to confirm understanding when conducting operational start-up and shutdown procedures</li> </ul>
Get the work done	<ul style="list-style-type: none"> <li>Access and interpret process control panels and system</li> <li>Maintain a clean and hazard-free work area</li> <li>Identify out-of-specification standards and maintain quality specifications</li> <li>Confirm equipment status and condition</li> <li>Interpret process and equipment information to monitor process and respond to abnormal performance and variations</li> </ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPOPR2039 Operate a frying process	FDFOP2039A Operate a frying process	Updated to meet Standards for Training Packages	Equivalent unit

## Links

Companion Volumes, including Implementation Guides, are available at VETNet -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# Assessment Requirements for FBPOPR2039 Operate a frying process

## Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 1.0

## Performance Evidence

An individual demonstrating competency in this unit must satisfy all of the elements and performance criteria of this unit.

There must be evidence that the individual has operated a frying process on at least one occasion, including:

- accessing workplace information to identify frying requirements
- selecting, fitting and using personal protective clothing and/or equipment
- confirming supply of necessary oil type to meet product frying requirements, product to be processed and services
- preparing materials as required prior to frying
- conducting pre-start checks, including:
  - inspecting equipment condition to identify any signs of wear
  - selecting appropriate settings and/or related parameters
  - cancelling isolation or lock-outs as required
  - confirming that equipment is clean and valves are correctly positioned for oil transfer and processing stages
  - positioning sensors and controls correctly
  - ensuring any scheduled maintenance has been carried out
  - confirming that all safety guards are in place and operational
- starting, operating, monitoring and adjusting the frying process and equipment to achieve required outcomes, including monitoring control points and conducting inspections as required to confirm process remains within specification, including:
  - product throughput/belt speeds
  - oil levels/temperatures
  - operation of oil filtration process
  - visual appearance of product, including breaking open to inspect
- monitoring supply and flow of materials to and from the process
- taking corrective action in response to out-of-specification results

- responding to and/or reporting equipment failure within level of responsibility
- locating emergency stop functions on equipment
- following isolation and lock-out/tag-out procedures as required to take process and related equipment off-line in preparation for cleaning and/or maintenance within level of responsibility
- completing workplace records as required
- maintaining work area to meet housekeeping standards
- using process control systems according to workplace procedures
- cleaning and sanitising equipment according to workplace procedures
- following relevant work health and safety procedures.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- purpose and basic principles of frying, including optimal frying conditions and the role of oil filtration
- basic operating principles of equipment used in the operation of a frying process, including:
  - main equipment components
  - the configuration of valves, pumps and pipework
  - status and purpose of guards
  - equipment operating capacities and applications
  - the purpose and location of sensors and related feedback instrumentation
- the flow of the frying process and the effect of product output on downstream processes
- quality characteristics to be achieved by the frying process
- effect of product and oil quality characteristics on the frying process, final product and shelf-life
- operating requirements and parameters, and corrective action required where operation is outside specified operating parameters
- typical equipment faults and related causes, including signs and symptoms of faulty equipment and early warning signs of potential problems
- methods used to monitor the frying process, including inspecting, measuring and testing as required by the process
- inspection or test points (control points) in the process and the related procedures and recording requirements
- contamination/food safety risks associated with the frying process and related control measures
- common causes of variation related to the frying process and corrective action required
- work health and safety hazards and controls, including the fire suppression system and procedures to follow if temperatures exceed the specified range
- requirements of different shutdowns as appropriate to the process and workplace production requirements, including emergency and routine shutdowns, and procedures to follow in the event of a power outage

- isolation, lock-out and tag-out procedures and responsibilities required for the operation of the frying process
- procedures and responsibility for reporting production and performance information
- environmental issues and controls relevant to the frying process, including procedures for recycling oil and for disposing of spent oil, and the consequences of incorrect disposal
- basic operating principles of process control, including the relationship between control panels and systems and the physical equipment
- cleaning and sanitation procedures required for the frying process.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - a workplace or an environment that accurately represents workplace conditions
- resources, equipment and materials:
  - personal protective clothing and equipment
  - in-line frying equipment and related equipment and services
  - frying oil suited to product type and product to be fried
  - sampling schedules and test procedures and equipment as required
  - cleaning procedures, materials and equipment as required
- specifications:
  - work procedures, including advice on safe work practices, food safety, quality and environmental requirements
  - information on equipment capacity and operating parameters
  - production schedule/batch instructions
  - specifications, control points and processing parameters
  - documentation and recording requirements and procedures.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volumes, including Implementation Guides, are available at VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>



## FBPOPR2040 Operate a heat treatment process

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 1.0

### Application

This unit of competency describes the skills and knowledge required to set up, operate, adjust and shut down a heat treatment process.

This unit applies to individuals who work under general supervision and exercise limited autonomy in a food processing environment. It typically applies to the production worker responsible for applying basic operating principles to the operation and monitoring of a heat treatment process and associated equipment.

All work must be carried out to comply with workplace procedures, in accordance with State/Territory work health and safety, and food safety regulations, legislation and standards that apply to the workplace.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

### Pre-requisite Unit

Nil

### Unit Sector

Operational (OPR)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare for work in heat treatment processing area	1.1 Confirm materials are available to meet operating requirements 1.2 Identify and confirm cleaning and maintenance requirements and status according to work health and safety and food safety

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	requirements 1.3 Wear appropriate personal protective clothing and ensure correct fit
2. Prepare the heat treatment process for operation	2.1 Fit machine components and related attachments and adjust to meet operating requirements 2.2 Enter processing and operating parameters to meet safety and production requirements 2.3 Check equipment performance and adjust according to production requirements 2.4 Carry out pre-start checks according to work health and safety and operating procedures
3. Operate and monitor the heat treatment process	3.1 Start, operate and monitor the process for variation in operating conditions 3.2 Monitor the process to confirm that temperature specifications are met 3.3 Identify, rectify and report out-of-specification equipment, product or process outcomes according to workplace requirements 3.4 Follow and apply workplace housekeeping and environmental working procedures
4. Shut down the heat treatment process	4.1 Identify the appropriate shutdown procedure 4.2 Shut down the process according to work health and safety and operating procedures 4.3 Identify and report maintenance requirements according to workplace procedures 4.4 Maintain workplace records according to workplace procedures

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
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Skill	Description
Reading	<ul style="list-style-type: none"> <li>Interpret workplace and standard operating procedures relevant to job role</li> <li>Interpret production requirements</li> </ul>
Writing	<ul style="list-style-type: none"> <li>Record operating, routine maintenance and shutdown information on paper-based and electronic media</li> </ul>
Numeracy	<ul style="list-style-type: none"> <li>Monitor and interpret production and process control indicators and data</li> <li>Monitor supply and flow of materials to and from the process</li> </ul>
Navigate the world of work	<ul style="list-style-type: none"> <li>Apply workplace procedures to own role and responsibilities</li> <li>Identify skills, knowledge and experience required for performing own role in the workplace</li> <li>Ask questions to clarify understanding or seek further information</li> </ul>
Interact with others	<ul style="list-style-type: none"> <li>Communicate and report operational and safety information to relevant personnel</li> <li>Use modes of communication suitable to purpose to confirm understanding when conducting operational start-up and shutdown procedures</li> </ul>
Get the work done	<ul style="list-style-type: none"> <li>Access and interpret process control panels and system</li> <li>Maintain a clean and hazard-free work area</li> <li>Identify out-of-specification standards and maintain quality specifications</li> <li>Confirm equipment status and condition</li> <li>Interpret process and equipment information to monitor process and respond to abnormal performance and variations</li> </ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPOPR2040 Operate a heat treatment process	FDFOP2040A Operate a heat treatment process	Updated to meet Standards for Training Packages	Equivalent unit

## Links

Companion Volumes, including Implementation Guides, are available at VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>



# Assessment Requirements for FBPOPR2040 Operate a heat treatment process

## Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 1.0

## Performance Evidence

An individual demonstrating competency in this unit must satisfy all of the elements and performance criteria of this unit.

There must be evidence that the individual has operated a heat treatment process on at least one occasion, including:

- accessing workplace information to identify heat treatment requirements
- selecting, fitting and using personal protective clothing and/or equipment
- confirming supply of necessary materials and services
- preparing materials
- conducting pre-start checks, including:
  - inspecting equipment condition to identify any signs of wear
  - selecting appropriate settings and/or related parameters
  - cancelling isolation or lock-outs
  - confirming that equipment is clean and correctly configured for processing requirements
  - positioning sensors and controls correctly
  - ensuring any scheduled maintenance has been carried out
  - confirming that all safety guards are in place and operational
- starting, operating, monitoring and adjusting the heat treatment process and equipment to achieve required outcomes, including monitoring control points and conducting inspections to confirm process remains within specification, including:
  - time and temperature
  - pressure
  - flow rates
  - flow diversion
- monitoring supply and flow of materials to and from the process
- taking corrective action in response to out-of-specification results
- responding to and/or reporting equipment failure within level of responsibility

- locating emergency stop functions on equipment
- following isolation and lock-out/tag-out procedures to take process and related equipment off-line in preparation for cleaning and/or maintenance within level of responsibility
- cleaning and sanitising equipment
- completing workplace records
- maintaining work area to meet housekeeping standards
- controlling related holding and cooling stages according to workplace procedures
- using process control systems according to workplace procedures
- following relevant work health and safety procedures.
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## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- purpose and basic principles of heat treatment, including the effect of heat treatment on product and on microbiological characteristics
- the relationship between time, temperature and pressure in the heat treatment process, including associated holding and cooling profiles according to product requirements
- basic operating principles of equipment used in the heat treatment process, including:
  - main equipment components
  - types and characteristics of heating mediums used
  - status and purpose of guards
  - equipment operating capacities and applications
  - the purpose and location of sensors and related feedback instrumentation
- the flow of the heat treatment process and the effect of product output on downstream processes
- quality characteristics required of the heat-treated product
- effect of raw material characteristics on the heat treatment process, including variation in viscosity/texture, microbial load and acidity
- heat treatment requirements for food to be treated, including low and/or high acid foods
- operating requirements and parameters for the heat treatment process, and corrective action required where operation is outside specified operating parameters
- typical equipment faults for the heat treatment process and related causes, including:
  - signs and symptoms of faulty equipment
  - early warning signs of potential problems
- methods used to monitor the heat treatment process, including inspecting, measuring and testing by the process
- inspection or test points (control points) in the process and the related procedures and recording requirements
- contamination/food safety risks associated with the process and related control measures
- common causes of variation in the operation of the heat treatment process and corrective action required

- work health and safety hazards and controls, including the limitations of protective clothing and equipment relevant to the work process
- requirements of different shutdowns as appropriate to the process and workplace production requirements, including emergency and routine shutdowns, and procedures to follow in the event of a power outage
- isolation, lock-out and tag-out procedures and responsibilities required for the operation of the heat treatment process
- procedures and responsibility for reporting production and performance information
- cleaning and sanitation procedures required for heat treatment process
- environmental issues and controls relevant to the heat treatment process, including waste/rework collection and handling procedures related to the process
- basic operating principles of process control, where relevant, including the relationship between control panels and systems and the physical equipment.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - a workplace or an environment that accurately represents workplace conditions
- resources, equipment and materials:
  - personal protective clothing and equipment
  - heat treatment process and related equipment and services
  - materials to be heat treated
  - sampling schedules and test procedures and equipment
  - cleaning procedures, materials and equipment
- specifications:
  - work procedures, including advice on safe work practices, food safety, quality and environmental requirements
  - information on equipment capacity and operating parameters
  - production schedule/batch instructions
  - specifications, control points and processing parameters
  - documentation and recording requirements and procedures.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volumes, including Implementation Guides, are available at VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## FBPOPR2041 Operate a mixing or blending and cooking process

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 1.0

### Application

This unit of competency describes the skills and knowledge required to set up, operate, adjust and shut down a mixing or blending and cooking process.

This unit applies to individuals who work under general supervision and exercise limited autonomy in a food processing environment. It typically applies to the production worker responsible for applying basic operating principles to the operation and monitoring of a mixing or blending and cooking process and associated equipment.

All work must be carried out to comply with workplace procedures, in accordance with State/Territory work health and safety, and food safety regulations, legislation and standards that apply to the workplace.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

### Pre-requisite Unit

Nil

### Unit Sector

Operational (OPR)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare for work in mixing/blending and	1.1 Read or listen to work instructions from supervisor and clarify where needed



Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
cooking processing area	1.2 Confirm ingredients are available to meet operating requirements 1.3 Identify and confirm cleaning and maintenance requirements and status according to work health and safety and food safety requirements 1.4 Wear appropriate personal protective clothing and ensure correct fit
2. Prepare mixing/blending and cooking equipment and process for operation	2.1 Fit machine components and related attachments and adjust to meet operating requirements 2.2 Enter processing and operating parameters to meet safety and production requirements 2.3 Check equipment performance and adjust according to production requirements 2.4 Carry out pre-start checks according to work health and safety and operating procedures
3. Operate and monitor the mixing/blending and cooking process	3.1 Introduce ingredients and additives in the required quantities and sequence to meet recipe specifications 3.2 Start, operate and monitor the process for variation in operating conditions 3.3 Monitor the process to confirm that specifications are met 3.4 Identify, rectify and report out-of-specification equipment, product or process outcomes according to workplace requirements 3.5 Transfer mix to required production or storage location 3.6 Follow and apply workplace housekeeping and environmental procedures
4. Shut down the mixing/blending and cooking process	4.1 Identify the appropriate shutdown procedure 4.2 Shut down the process according to work health and safety and operating procedures 4.3 Identify and report maintenance requirements according to workplace procedures 4.4 Maintain workplace records according to workplace procedures

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"> <li>Interpret workplace and standard operating procedures relevant to job role</li> <li>Interpret production requirements</li> </ul>
Writing	<ul style="list-style-type: none"> <li>Record operating, routine maintenance and shutdown information on paper-based and electronic media</li> </ul>
Numeracy	<ul style="list-style-type: none"> <li>Monitor and interpret production and process control indicators and data</li> <li>Monitor supply and flow of materials to and from the process</li> </ul>
Navigate the world of work	<ul style="list-style-type: none"> <li>Apply workplace procedures to own role and responsibilities</li> <li>Identify skills, knowledge and experience required for performing own role in the workplace</li> <li>Ask questions to clarify understanding or seek further information</li> </ul>
Interact with others	<ul style="list-style-type: none"> <li>Communicate and report operational and safety information to relevant personnel</li> <li>Use modes of communication suitable to purpose to confirm understanding when conducting operational start-up and shutdown procedures</li> </ul>
Get the work done	<ul style="list-style-type: none"> <li>Access and interpret process control panels and system</li> <li>Maintain a clean and hazard-free work area</li> <li>Identify out-of-specification standards and maintain quality specifications</li> <li>Confirm equipment status and condition</li> <li>Interpret process and equipment information to monitor process and respond to abnormal performance and variations</li> </ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPOPR2041 Operate a mixing or blending and cooking process	FDFOP2041A Operate a mixing or blending and cooking process	Updated to meet Standards for Training Packages	Equivalent unit

## Links

Companion Volumes, including Implementation Guides, are available at VETNet -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## Assessment Requirements for FBPOPR2041 Operate a mixing or blending and cooking process

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 1.0

### Performance Evidence

An individual demonstrating competency in this unit must satisfy all of the elements and performance criteria of this unit.

There must be evidence that the individual has operated a mixing or blending and cooking process on at least one occasion, including:

- accessing workplace information to identify recipe requirements
- selecting, fitting and using personal protective clothing and/or equipment
- confirming supply of necessary materials and services
- conducting pre-start checks, including:
  - inspecting equipment condition to identify any signs of wear
  - selecting appropriate settings and/or related parameters
  - cancelling isolation or lock-outs
  - confirming that related equipment is clean and correctly configured for processing requirements
  - positioning sensors and controls correctly
  - ensuring any scheduled maintenance has been carried out
  - confirming that all safety guards are in place and operational
- sequencing ingredient addition to meet recipe specifications, including manual addition and/or operating bulk materials transfer and automatic addition equipment
- starting, monitoring and adjusting processing equipment to achieve required outcomes, including monitoring control points and conducting inspections to confirm process remains within specification, including:
  - time and temperature
  - agitation settings
  - weights
  - flow rates
  - flow diversion
  - characteristics of the mix, including colour, viscosity, density and consistency

- taking corrective action in response to out-of-specification results
- responding to and/or reporting equipment failure within level of responsibility
- locating emergency stop functions on equipment
- following isolation and lock-out/tag-out procedures to take process and related equipment off-line in preparation for cleaning and/or maintenance within level of responsibility
- completing workplace records
- maintaining work area to meet housekeeping standards
- using process control systems according to workplace procedures
- cleaning and sanitising equipment according to workplace procedures
- following relevant work health and safety procedures.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- purpose and basic principles of heat sterilisation and effect on physical, chemical, microbiological and organoleptic characteristics of the cooked product
- the flow of the mixing or blending and cooking process and the effect of product output on downstream processes
- basic operating principles of equipment used in the mixing/blending and cooking process, including:
  - main equipment components
  - status and purpose of guards
  - equipment operating capacities and applications
  - the purpose and location of sensors and related feedback instrumentation
  - calibration schedules for scales and related weighing/measuring equipment
- services required mixing/blending and cooking process and action to take if services are not available
- quality characteristics and conditioning required of ingredients used, and their role in the product, including reconstituting dry ingredients and bringing ingredients to a required temperature
- effect of ingredient quality/condition on the process, including variables including temperature, viscosity/texture, microbial load and acidity quality
- heat treatment requirements for low and/or high acid foods as appropriate to production requirements
- stages and changes that occur during the blending and heat treatment stages
- quality requirements of the cooked product, including chemical, textural and flavour profiles
- relationship between time and temperature in the cooking process
- operating requirements and parameters and corrective action required where operation is outside specified operating parameters
- procedures for requisitioning, receiving and returning ingredients from stores

- typical equipment faults and related causes, including signs and symptoms of faulty equipment and early warning signs of potential problems
- common causes of variation in the mixing/blending and cooking process and corrective action required
- contamination/food safety issues associated with mixing and blending and related control measures
- work health and safety hazards and controls relevant to the mixing/blending and cooking process
- requirements of different shutdowns as appropriate to the process and workplace production requirements, including emergency and routine shutdowns, and procedures to follow in the event of a power outage
- isolation, lock-out and tag-out procedures and responsibilities required for the mixing/blending and cooking process
- procedures and responsibility for reporting production and performance information
- environmental issues and controls relevant to the process, including waste/rework collection and handling procedures related to the process
- basic operating principles of process control, including the relationship between control panels and systems and the physical equipment
- food safety requirements when preparing products
- packaging requirements and procedures
- cleaning and sanitation procedures required for the mixing/blending and cooking process.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - a workplace or an environment that accurately represents workplace conditions
- resources, equipment and materials:
  - personal protective clothing and equipment
  - mixing/blending and cooking process and related equipment and services
  - ingredients to be cooked
  - sampling schedules and test procedures and equipment
  - cleaning procedures, materials and equipment
- specifications:
  - work procedures, including advice on safe work practices, food safety, quality and environmental requirements
  - information on equipment capacity and operating parameters
  - production schedule/batch/recipe instructions
  - specifications, control points and operating parameters
  - documentation and recording requirements and procedures.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volumes, including Implementation Guides, are available at VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## FBPOPR2042 Operate a drying process

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 1.0

### Application

This unit of competency describes the skills and knowledge required to set up, operate, adjust and shut down a drying process.

This unit applies to individuals who work under general supervision and exercise limited autonomy in a food processing environment. It typically applies to the production worker responsible for applying basic operating principles to the operation and monitoring of a drying process and associated equipment.

All work must be carried out to comply with workplace procedures, in accordance with State/Territory work health and safety, and food safety regulations, legislation and standards that apply to the workplace.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

### Pre-requisite Unit

Nil

### Unit Sector

Operational (OPR)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare the drying process for operation	1.1 Confirm availability of materials to meet operating requirements 1.2 Identify and confirm cleaning and maintenance requirements and



Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	<p>status according to work health and safety and food safety requirements</p> <p>1.3 Enter processing and operating parameters as required to meet safety and production requirements</p> <p>1.4 Check and adjust equipment performance as required to maintain specifications</p> <p>1.5 Carry out pre-start checks according to work health and safety and operating procedures</p>
2. Operate and monitor the drying process	<p>2.1 Start, operate and monitor the process for variation in operating conditions</p> <p>2.2 Monitor the process to confirm that specifications are met</p> <p>2.3 Identify, rectify and report out-of-specification equipment, product or process outcomes according to workplace requirements</p> <p>2.4 Follow and apply workplace housekeeping and environmental procedures</p>
3. Shut down the drying process	<p>3.1 Identify the appropriate shutdown procedure</p> <p>3.2 Shut down the process according to work health and safety and operating procedures</p> <p>3.3 Identify and report maintenance requirements according to workplace procedures</p> <p>3.4 Maintain workplace records according to workplace procedures</p>

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"> <li>Interpret workplace and standard operating procedures relevant to job role</li> <li>Interpret production requirements</li> </ul>

Skill	Description
Writing	<ul style="list-style-type: none"> <li>Record operating, routine maintenance and shutdown information on paper-based and electronic media</li> </ul>
Numeracy	<ul style="list-style-type: none"> <li>Monitor and interpret production and process control indicators and data</li> <li>Monitor supply and flow of materials to and from the process</li> </ul>
Navigate the world of work	<ul style="list-style-type: none"> <li>Apply workplace procedures to own role and responsibilities</li> <li>Identify skills, knowledge and experience required for performing own role in the workplace</li> <li>Ask questions to clarify understanding or seek further information</li> </ul>
Interact with others	<ul style="list-style-type: none"> <li>Communicate and report operational and safety information to relevant personnel</li> <li>Use modes of communication suitable to purpose to confirm understanding when conducting operational start-up and shutdown procedures</li> </ul>
Get the work done	<ul style="list-style-type: none"> <li>Access and interpret process control panels and system</li> <li>Maintain a clean and hazard-free work area</li> <li>Identify out-of-specification standards and maintain quality specifications</li> <li>Confirm equipment status and condition</li> <li>Interpret process and equipment information to monitor process and respond to abnormal performance and variations</li> </ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPOPR2042 Operate a drying process	FDFOP2042A Operate a drying process	Updated to meet Standards for Training Packages	Equivalent unit

## Links

Companion Volumes, including Implementation Guides, are available at VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# Assessment Requirements for FBPOPR2042 Operate a drying process

## Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 1.0

## Performance Evidence

An individual demonstrating competency in this unit must satisfy all of the elements and performance criteria of this unit.

There must be evidence that the individual has operated a drying process on at least one occasion, including:

- accessing workplace information to identify processing requirements
- selecting, fitting and using personal protective clothing and/or equipment
- confirming supply of necessary materials and services
- preparing materials as required
- conducting pre-start checks, including:
  - inspecting equipment condition, including checking belts, chains, screens, seals and valves, and filters, to identify any signs of wear
  - selecting appropriate settings and/or related parameters
  - cancelling isolation or lock-outs as required
  - confirming that equipment is clean and correctly configured for processing requirements
  - positioning sensors and controls correctly
  - ensuring any scheduled maintenance has been carried out
  - confirming that all safety guards are in place and operational
- starting, operating, monitoring and adjusting process equipment to achieve required outcomes, including monitoring control points and conducting inspections as required to confirm process remains within specification, including:
  - temperatures
  - moisture content
  - air flow
  - throughput
  - time/speed
  - pressure/vacuum

- product characteristics
- monitoring supply and flow of materials to and from the process
- taking corrective action in response to out-of-specification results or non-compliance
- responding to and/or reporting equipment failure within level of responsibility
- reporting and/or recording corrective action as required
- locating emergency stop functions on equipment
- following isolation and lock-out/tag-out procedures as required to take process and related equipment off-line in preparation for cleaning and/or maintenance within level of responsibility
- preparing equipment for cleaning
- completing workplace records as required
- maintaining work area to meet housekeeping standards
- using process control systems according to workplace procedures
- cleaning and sanitising equipment according to workplace procedures
- following relevant work health and safety procedures.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- the purpose and basic principles of the drying process, including the stages that occur during the drying process and the effect on product structure of each stage
- basic operating principles of equipment used in the drying process, including:
  - main equipment components
  - status and purpose of guards
  - equipment operating capacities and applications
  - the purpose and location of sensors and related feedback instrumentation
- services required to operate the drying process and action to take if services are not available
- quality characteristics to be achieved by the drying process
- materials preparation requirements and the effect of variation on the process
- the flow of the drying process and the effect of outputs on downstream processes
- operating requirements and parameters of the drying process, and corrective action required where operation is outside specified operating parameters
- typical equipment faults related to the operation of the drying process and related causes, including:
  - signs and symptoms of faulty equipment
  - early warning signs of potential problems
- methods used to monitor the drying process, including inspecting, measuring and testing as required by the process
- inspection or test points (control points) in the process and the related procedures and recording requirements
- contamination/food safety risks associated with the process and related control measures

- common causes of variation, including air temperature, air velocity, humidity and pressure, and corrective actions required if these are out-of-specification
- work health and safety hazards and controls, including limitations of protective clothing and equipment relevant to the operation of the drying process
- requirements of different shutdowns as appropriate to the process and workplace production requirements, including emergency and routine shutdowns, and procedures to follow in the event of a power outage
- isolation, lock-out and tag-out procedures and responsibilities required for the operation of the drying process
- procedures and responsibility for reporting production and performance information
- environmental issues and controls relevant to the drying process, including waste/rework collection and handling procedures related to the process
- basic operating principles of process control, including the relationship between control panels and systems and the physical equipment
- cleaning and sanitation procedures required for the drying process.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - a workplace or an environment that accurately represents workplace conditions
- resources, equipment and materials:
  - personal protective clothing and equipment
  - drying process and related equipment and services
  - product to be dried
  - sampling schedules and test procedures and equipment as required
  - cleaning procedures, materials and equipment
- specifications:
  - work procedures, including advice on safe work practices, food safety, quality and environmental requirements
  - information on equipment capacity and operating parameters
  - production schedule, batch instructions
  - specifications, control points and processing parameters
  - documentation and recording requirements and procedures.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volumes, including Implementation Guides, are available at VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>



## FBPOPR2043 Operate an homogenising process

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 1.0

### Application

This unit of competency describes the skills and knowledge required to set up, operate, adjust and shut down a homogenising process.

This unit applies to individuals who work under general supervision and exercise limited autonomy in a food processing environment. It typically applies to the production worker responsible for applying basic operating principles to the operation and monitoring of a homogenising process and associated equipment.

All work must be carried out to comply with workplace procedures, in accordance with State/Territory work health and safety, and food safety regulations, legislation and standards that apply to the workplace.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

### Pre-requisite Unit

Nil

### Unit Sector

Operational (OPR)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare for work in processing area	1.1 Confirm materials are available to meet operating requirements 1.2 Identify and confirm cleaning and maintenance requirements and status according to work health and safety and food safety

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	requirements 1.3 Wear appropriate personal protective clothing and ensure correct fit
2. Prepare homogenising process for operation	2.1 Fit machine components and related attachments and adjust to meet operating requirements 2.2 Enter processing and operating parameters as required to meet safety and production requirements 2.3 Check equipment performance and adjust according to production requirements 2.4 Carry out pre-start checks according to work health and safety and operating procedures
3. Operate and monitor the homogenising process	3.1 Start, operate and monitor the process for variation in operating conditions 3.2 Monitor the process to confirm that specifications are met 3.3 Identify, rectify and report out-of-specification equipment, product or process outcomes according to workplace requirements 3.4 Follow and apply workplace housekeeping and environmental procedures
4. Shut down homogenising equipment	4.1 Identify the appropriate shutdown procedure 4.2 Shut down the process according to work health and safety and operating procedures 4.3 Identify and report maintenance requirements according to workplace procedures 4.4 Maintain workplace records according to workplace procedures

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
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Skill	Description
Reading	<ul style="list-style-type: none"> <li>Interpret workplace and standard operating procedures relevant to job role</li> <li>Interpret production requirements</li> </ul>
Writing	<ul style="list-style-type: none"> <li>Record operating, routine maintenance and shutdown information on paper-based and electronic media</li> </ul>
Numeracy	<ul style="list-style-type: none"> <li>Monitor and interpret production and process control indicators and data</li> <li>Monitor supply and flow of materials to and from the process</li> </ul>
Navigate the world of work	<ul style="list-style-type: none"> <li>Apply workplace procedures to own role and responsibilities</li> <li>Identify skills, knowledge and experience required for performing own role in the workplace</li> <li>Ask questions to clarify understanding or seek further information</li> </ul>
Interact with others	<ul style="list-style-type: none"> <li>Communicate and report operational and safety information to relevant personnel</li> <li>Use modes of communication suitable to purpose to confirm understanding when conducting operational start-up and shutdown procedures</li> </ul>
Get the work done	<ul style="list-style-type: none"> <li>Access and interpret process control panels and system</li> <li>Maintain a clean and hazard-free work area</li> <li>Identify out-of-specification standards and maintain quality specifications</li> <li>Confirm equipment status and condition</li> <li>Interpret process and equipment information to monitor process and respond to abnormal performance and variations</li> </ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPOPR2043 Operate an homogenising process	FDFOP2043A Operate an homogenising process	Updated to meet Standards for Training Packages	Equivalent unit

## Links

Companion Volumes, including Implementation Guides, are available at VETNet -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# Assessment Requirements for FBOPR2043 Operate an homogenising process

## Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 1.0

## Performance Evidence

An individual demonstrating competency in this unit must satisfy all of the elements and performance criteria of this unit.

There must be evidence that the individual has operated an homogenising process on at least one occasion, including:

- accessing workplace information to identify processing requirements
- selecting, fitting and using personal protective clothing and/or equipment
- confirming supply of necessary materials and services
- conducting pre-start checks, including:
  - inspecting equipment condition to identify any signs of wear
  - selecting appropriate settings and/or related parameters
  - cancelling isolation or lock-outs as required
  - confirming that equipment is clean and correctly configured for processing requirements
  - positioning sensors and controls correctly
  - ensuring any scheduled maintenance has been carried out
  - confirming that all safety guards are in place and operational
- starting, operating, monitoring and adjusting process equipment to achieve required outcomes, including monitoring control points and conducting inspections as required to confirm the homogenising process remains within specification, including:
  - temperature
  - pressure
  - throughput
- monitoring supply and flow of materials to and from the process
- taking corrective action in response to out-of-specification results
- responding to and/or reporting equipment failure within level of responsibility
- locating emergency stop functions on equipment

- following isolation and lock-out/tag-out procedures as required to take process and related equipment off-line in preparation for cleaning and/or maintenance within level of responsibility
- completing workplace records as required
- maintaining work area to meet housekeeping standards
- using process control systems according to workplace procedures
- cleaning and sanitising equipment according to workplace procedures
- following relevant work health and safety procedures.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- purpose and basic principles of homogenising
- basic operating principles of equipment used in the operation of a homogenising process, including:
  - main equipment components
  - status and purpose of guards
  - equipment operating capacities and applications
  - the purpose and location of sensors and related feedback instrumentation
- effect of raw materials on homogenisation, including variables, including solids (brix), acidity, temperature, consistency and colour on process outcomes
- quality requirements to be achieved by the homogenisation process
- the flow of the homogenising process and the effect of product output on downstream processes
- operating requirements and parameters and corrective action required where operation is outside specified operating parameters
- typical equipment faults related to the homogenising process and related causes, including:
  - signs and symptoms of faulty equipment
  - early warning signs of potential problems
- techniques used to monitor the homogenising process, including inspecting, measuring and testing as required by the process
- inspection or test points (control points) in the process, and the related procedures and recording requirements
- common causes of variation in the operation of the homogenising process and corrective action required
- work health and safety hazards and controls relevant to the operation of the homogenising process
- requirements of different shutdowns as appropriate to the process and workplace production requirements, including emergency and routine shutdowns and procedures to follow in the event of a power outage
- isolation, lock-out and tag-out procedures and responsibilities required for the operation of the homogenising process

- procedures and responsibility for reporting production and performance information
- environmental issues and controls relevant to the homogenising process, including waste/rework collection and handling procedures related to the process
- basic operating principles of process control, including the relationship between control panels and systems and the physical equipment
- cleaning and sanitation procedures required for the operation of the homogenising process.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - a workplace or an environment that accurately represents workplace conditions
- resources, equipment and materials:
  - personal protective clothing and equipment
  - homogenisation process and related equipment and services
  - materials to be homogenised
  - sampling schedules and test procedures and equipment
  - cleaning procedures, materials and equipment
- specifications:
  - work procedures, including advice on safe work practices, food safety, quality and environmental requirements
  - information on equipment capacity and operating parameters
  - production schedule/batch instructions
  - specifications, control points and processing parameters
  - documentation and recording requirements and procedures.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volumes, including Implementation Guides, are available at VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## FBPOPR2044 Operate a retort process

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 1.0

### Application

This unit of competency describes the skills and knowledge required to set up, operate, adjust and shut down a retort process.

This unit applies to individuals who work under general supervision and exercise limited autonomy in a food processing environment. It typically applies to the production worker responsible for applying basic operating principles to the operation and monitoring of a retort process and associated equipment.

All work must be carried out to comply with workplace procedures, in accordance with State/Territory work health and safety, and food safety regulations, legislation and standards that apply to the workplace.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

### Pre-requisite Unit

Nil

### Unit Sector

Operational (OPR)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare for work in processing area	1.1 Read or listen to work instructions from supervisor and clarify where needed

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	<p>1.2 Confirm materials are available to meet operating requirements</p> <p>1.3 Identify and confirm cleaning and maintenance requirements and status according to work health and safety and food safety requirements</p> <p>1.4 Wear appropriate personal protective clothing and ensure correct fit</p>
2. Prepare the retort equipment and process for operation	<p>2.1 Fit machine components and related attachments and adjust to meet operating requirements</p> <p>2.2 Enter processing and operating parameters as required to meet safety and production requirements</p> <p>2.3 Check equipment performance and adjust according to production requirements</p> <p>2.4 Carry out pre-start checks according to work health and safety and operating procedures</p>
3. Operate and monitor the retort process	<p>3.1 Start, operate and monitor the process for variation in operating conditions</p> <p>3.2 Monitor the process to confirm that specifications are met</p> <p>3.3 Identify, rectify and report out-of-specification equipment, product or process outcomes according to workplace requirements</p> <p>3.4 Follow and apply workplace housekeeping and environmental procedures</p>
4. Shut down the retort process	<p>4.1 Identify the appropriate shutdown procedure</p> <p>4.2 Shut down the process according to work health and safety and operating procedures</p> <p>4.3 Identify and report maintenance requirements according to workplace procedures</p> <p>4.4 Maintain workplace records according to workplace procedures</p>

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"> <li>Interpret workplace and standard operating procedures relevant to job role</li> <li>Interpret production requirements</li> </ul>
Writing	<ul style="list-style-type: none"> <li>Record operating, routine maintenance and shutdown information on paper-based and electronic media</li> </ul>
Numeracy	<ul style="list-style-type: none"> <li>Monitor and interpret production and process control indicators and data</li> <li>Monitor supply and flow of materials to and from the process</li> </ul>
Navigate the world of work	<ul style="list-style-type: none"> <li>Apply workplace procedures to own role and responsibilities</li> <li>Identify skills, knowledge and experience required for performing own role in the workplace</li> <li>Ask questions to clarify understanding or seek further information</li> </ul>
Interact with others	<ul style="list-style-type: none"> <li>Communicate and report operational and safety information to relevant personnel</li> <li>Use modes of communication suitable to purpose to confirm understanding when conducting operational start-up and shutdown procedures</li> </ul>
Get the work done	<ul style="list-style-type: none"> <li>Access and interpret process control panels and system</li> <li>Maintain a clean and hazard-free work area</li> <li>Identify out-of-specification standards and maintain quality specifications</li> <li>Confirm equipment status and condition</li> <li>Interpret process and equipment information to monitor process and respond to abnormal performance and variations</li> </ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPOPR2044 Operate a retort process	FDFOP2044A Operate a retort process	Updated to meet Standards for Training Packages	Equivalent unit



## Links

Companion Volumes, including Implementation Guides, are available at VETNet -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# Assessment Requirements for FBPOPR2044 Operate a retort process

## Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 1.0

## Performance Evidence

An individual demonstrating competency in this unit must satisfy all of the elements and performance criteria of this unit.

There must be evidence that the individual has operated a retort process on at least one occasion, including:

- accessing workplace information to identify processing requirements
- selecting, fitting and using personal protective clothing and/or equipment
- confirming supply of necessary materials and services, including confirming container coding, and treating or confirming availability of treated cooling water
- conducting pre-start checks, including:
  - inspecting equipment condition to identify any signs of wear
  - selecting appropriate settings and/or related parameters
  - cancelling isolation or lock-outs as required
  - confirming that equipment is clean and correctly configured for processing requirements
  - positioning sensors and controls correctly
  - ensuring any scheduled maintenance has been carried out
  - confirming that all safety guards are in place and operational
- starting, operating, monitoring and adjusting the cooking and cooling process equipment to achieve required outcomes, including monitoring control points and conducting inspections as required to confirm process remains within specification, including:
  - time
  - temperature
  - pressure at each stage
- cooling, cleaning and handling post-treated containers to meet requirements
- monitoring supply and flow of materials to and from the process
- taking corrective action in response to out-of-specification results
- responding to and/or reporting equipment failure within level of responsibility

- locating emergency stop functions on equipment
- following isolation and lock-out/tag-out procedures as required to take process and related equipment off-line in preparation for cleaning and/or maintenance within level of responsibility
- completing workplace records as required
- maintaining work area to meet housekeeping standards
- using process control systems according to workplace procedures
- cleaning and sanitising equipment according to workplace procedures
- following relevant work health and safety procedures.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- purpose and basic principles of heat treatment and retort process, including:
  - relationship between time and temperature in the retort process
  - changes and requirements of each stage, including cooking, cooling and post-treatment container handling
- the purpose and requirements of container coding
- basic operating principles of equipment required for operating a retort process, including main equipment components, including:
  - thermometers, chart recorder, temperature control system, clock and pressure gauges
  - status and purpose of guards
  - equipment operating capacities and applications
  - purpose and location of sensors and related feedback instrumentation
- the flow of the retort process and the effect of product output on downstream processes
- quality characteristics required of the retorted product
- effect of raw material characteristics on process performance
- operating requirements and parameters and corrective action required where operation is outside specified operating parameters
- typical equipment faults for a retort process operation and related causes, including:
  - signs and symptoms of faulty equipment
  - early warning signs of potential problems
- techniques used to monitor the retort process, including inspecting, measuring and testing as required by the process
- inspection or test points (control points) in the process and the related procedures and recording requirements
- contamination/food safety risks associated with the process and related control measures, including both the risks of contamination related to processing and to post-processing handling of containers
- common causes of variation and corrective action required, including the effects of variables, including container size, product particulates, pH, water activity, time/temperature and pressure on process outcomes

- work health and safety hazards and controls relevant to operating a retort process
- requirements of different shutdowns as appropriate to the process and workplace production requirements, including emergency and routine shutdowns, and procedures to follow in the event of a power outage
- isolation, lock-out and tag-out procedures and responsibilities required for operating a retort process
- procedures and responsibility for reporting production and performance information
- environmental issues and controls relevant to the process, including waste/rework collection and handling procedures related to the process
- basic operating principles of process control, including the relationship between control panels and systems and the physical equipment
- cleaning and sanitation procedures required for operating a retort process.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - a workplace or an environment that accurately represents workplace conditions
- resources, equipment and materials:
  - personal protective clothing and equipment
  - retort process and related equipment and services
  - materials to be processed
  - sampling schedules and test procedures and equipment
  - cleaning procedures, materials and equipment
- specifications:
  - work procedures, including advice on safe work practices, food safety, quality and environmental requirements
  - information on equipment capacity and operating parameters
  - production schedule/batch instructions
  - specifications, control points and processing parameters
  - documentation and recording requirements and procedures.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volumes, including Implementation Guides, are available at VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# FBPOPR2045 Operate pumping equipment

## Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 1.0

## Application

This unit of competency describes the skills and knowledge required to set up, operate and monitor pumping equipment.

This unit applies to individuals who work under general supervision and exercise limited autonomy in a food processing environment. It typically applies to the production worker responsible for applying basic operating principles to the operation and monitoring of pumping and associated equipment.

All work must be carried out to comply with workplace procedures, in accordance with State/Territory work health and safety, and food safety regulations, legislation and standards that apply to the workplace.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

## Pre-requisite Unit

Nil

## Unit Sector

Operational (OPR)

## Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare pumps for operation	1.1 Confirm pumps and related equipment are available to meet operating requirements

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	1.2 Wear appropriate personal protective clothing and ensure correct fit 1.3 Carry out pre-start checks on pumps and related equipment according to work health and safety and operating procedures 1.4 Select appropriate settings to meet safety and production requirements 1.5 Monitor and maintain condition of pumps and related equipment, and identify and report maintenance requirements according to workplace reporting requirements
2. Monitor pump operation	2.1 Start and monitor pumps and related equipment to identify variation in operating conditions 2.2 Take corrective action to maintain pump operation within equipment capacity and operating parameters
3. Complete pump operation	3.1 Prepare pumps for cleaning and/or maintenance according to work health and safety and food safety requirements 3.2 Conduct work in accordance with workplace environmental guidelines 3.3 Maintain the work area according to workplace procedures 3.4 Maintain workplace records according to workplace procedures

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"> <li>Interpret workplace and standard operating procedures relevant to job role</li> <li>Interpret production requirements</li> </ul>
Writing	<ul style="list-style-type: none"> <li>Record operating, routine maintenance and shutdown information on paper-based and electronic media</li> </ul>
Numeracy	<ul style="list-style-type: none"> <li>Monitor and interpret production and process control indicators and data</li> </ul>

Skill	Description
	<ul style="list-style-type: none"> <li>Monitor supply and flow of materials to and from the process</li> </ul>
Navigate the world of work	<ul style="list-style-type: none"> <li>Apply workplace procedures to own role and responsibilities</li> <li>Identify skills, knowledge and experience required for performing own role in the workplace</li> <li>Ask questions to clarify understanding or seek further information</li> </ul>
Interact with others	<ul style="list-style-type: none"> <li>Communicate and report operational and safety information to relevant personnel</li> <li>Use modes of communication suitable to purpose to confirm understanding when conducting operational start-up and shutdown procedures</li> </ul>
Get the work done	<ul style="list-style-type: none"> <li>Access and interpret process control panels and system</li> <li>Maintain a clean and hazard-free work area</li> <li>Identify out-of-specification standards and maintain quality specifications</li> <li>Confirm equipment status and condition</li> <li>Interpret process and equipment information to monitor process and respond to abnormal performance and variations</li> </ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPOPR2045 Operate pumping equipment	FDFOP2045A Operate pumping equipment	Updated to meet Standards for Training Packages	Equivalent unit

## Links

Companion Volumes, including Implementation Guides, are available at VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# Assessment Requirements for FBOPR2045 Operate pumping equipment

## Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 1.0

## Performance Evidence

An individual demonstrating competency in this unit must satisfy all of the elements and performance criteria of this unit.

There must be evidence that the individual has operated pumping equipment on at least one occasion, including:

- accessing workplace information to identify pumping requirements
- selecting, fitting and using personal protective clothing and/or equipment
- confirming supply of materials to be pumped and necessary services
- conducting pre-start checks, including:
  - inspecting pump flanges, gaskets and seals to identify any signs of wear
  - checking related valve assemblies to identify any signs of leaks
  - cancelling isolation or lock-outs (where pumps have variable settings that involve selecting appropriate settings and confirming that related pipework is correctly configured for pumping requirements)
- monitoring and adjusting pump operation, including identifying variation in amperage and adjusting pump speeds/flow rates to meet pumping requirements
- monitoring supply and flow of materials to and from the pump
- following isolation and lock-out/tag-out procedures to take pumps and related equipment off-line in preparation for cleaning and/or maintenance within level of responsibility
- responding to and/or reporting pump equipment failure within level of responsibility
- locating stop and reset functions on pumps
- maintaining work area to meet housekeeping standards
- operating pumps using process control systems according to workplace procedures
- cleaning pumps and related equipment according to workplace procedures
- following relevant work health and safety requirements.



## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- basic operating principles of pumps and related equipment, including:
  - main pump components
  - status and purpose of guards
  - pump system configuration, including valves, taps and pipework
- the effect of pumping system design on operating performance, including flow resistance, pressure and head
- operating capacities of pumps used in the work area, including different pump types to perform pumping operations
- effect of raw material characteristics on pump performance, including variables that include soluble solids, temperature and viscosity
- effect of pump operating parameters on product/materials pumped
- corrective action required where pump operation is outside specified operating parameters
- typical equipment faults and related causes relevant to operating pumping equipment, including:
  - signs and symptoms of faulty equipment
  - early warning signs of potential problems
  - services required
- isolation, lock-out and tag-out procedures and responsibilities required for operating pumping equipment
- work health and safety hazards and controls relevant to operating pumping equipment
- procedures and responsibility for reporting problems
- environmental issues and controls, including action required in the event of significant leaks or spills
- basic operating principles of process control, including the relationship between control panels and systems and the physical equipment
- cleaning procedures required for operating pumping equipment.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - a workplace or an environment that accurately represents workplace conditions
- resources, equipment and materials:
  - personal protective clothing and equipment
  - pumps, related equipment and services
  - materials to be pumped
  - routine preventative maintenance schedule as required
  - cleaning procedures, materials and equipment

- specifications:
  - work procedures, including advice on safe work practices, food safety, quality and environmental requirements
  - information on equipment capacity and operating parameters.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volumes, including Implementation Guides, are available at VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## FBPOPR2046 Operate a production process

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 1.0

### Application

This unit of competency describes the skills and knowledge required to set up, operate, adjust and shut down a production process.

This unit applies to individuals who work under general supervision and exercise limited autonomy in a food processing environment. It typically applies to the production worker responsible for applying basic operating principles to the operation and monitoring of a production process and associated equipment.

All work must be carried out to comply with workplace procedures, in accordance with State/Territory work health and safety, and food safety regulations, legislation and standards that apply to the workplace.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

### Pre-requisite Unit

Nil

### Unit Sector

Operational (OPR)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare for work in processing area	1.1 Confirm materials are available to meet operating requirements 1.2 Identify and confirm cleaning and maintenance requirements and

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	status according to work health and safety and food safety requirements 1.3 Wear appropriate personal protective clothing and ensure correct fit
2. Prepare the equipment and process for operation	2.1 Fit machine components and related attachments and adjust to meet operating requirements 2.2 Enter processing and operating parameters to meet safety and production requirements 2.3 Check equipment performance and adjust according to production requirements 2.4 Carry out pre-start checks according to work health and safety and operating procedures
3. Operate and monitor the process	3.1 Start, operate and monitor the process for variation in operating conditions 3.2 Monitor the process to confirm that specifications are met 3.3 Identify, rectify and report out-of-specification equipment, product or process outcomes according to workplace requirements 3.4 Follow and workplace housekeeping and environmental procedures
4. Shut down the process	4.1 Identify the appropriate shutdown procedure 4.2 Shut down the process according to work health and safety and operating procedures 4.3 Identify and report maintenance requirements according to workplace procedures 4.4 Maintain workplace records according to workplace procedures

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
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Skill	Description
Reading	<ul style="list-style-type: none"> <li>Interpret workplace and standard operating procedures relevant to job role</li> <li>Interpret production requirements</li> </ul>
Writing	<ul style="list-style-type: none"> <li>Record operating, routine maintenance and shutdown information on paper-based and electronic media</li> </ul>
Numeracy	<ul style="list-style-type: none"> <li>Monitor and interpret production and process control indicators and data</li> <li>Monitor supply and flow of materials to and from the process</li> </ul>
Navigate the world of work	<ul style="list-style-type: none"> <li>Apply workplace procedures to own role and responsibilities</li> <li>Identify skills, knowledge and experience required for performing own role in the workplace</li> <li>Ask questions to clarify understanding or seek further information</li> </ul>
Interact with others	<ul style="list-style-type: none"> <li>Communicate and report operational and safety information to relevant personnel</li> <li>Use modes of communication suitable to purpose to confirm understanding when conducting operational start-up and shutdown procedures</li> </ul>
Get the work done	<ul style="list-style-type: none"> <li>Access and interpret process control panels and system</li> <li>Maintain a clean and hazard-free work area</li> <li>Identify out-of-specification standards and maintain quality specifications</li> <li>Confirm equipment status and condition</li> <li>Interpret process and equipment information to monitor process and respond to abnormal performance and variations</li> </ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPOPR2046 Operate a production process	FDFOP2046A Operate a production process	Updated to meet Standards for Training Packages	Equivalent unit

## Links

Companion Volumes, including Implementation Guides, are available at VETNet -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# Assessment Requirements for FBOPR2046 Operate a production process

## Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 1.0

## Performance Evidence

An individual demonstrating competency in this unit must satisfy all of the elements and performance criteria of this unit.

There must be evidence that the individual has operated a production process on at least one occasion, including:

- accessing workplace information to identify processing requirements
- selecting, fitting and using personal protective clothing and/or equipment
- confirming supply of necessary materials and services
- conducting pre-start checks, including:
  - inspecting equipment condition to identify any signs of wear
  - selecting appropriate settings and/or related parameters
  - cancelling isolation or lock-outs
  - confirming that equipment is clean and correctly configured for processing requirements
  - positioning sensors and controls correctly
  - ensuring any scheduled maintenance has been carried out
  - confirming that all safety guards are in place and operational
- starting, operating, monitoring and adjusting process equipment to achieve required outcomes, including monitoring control points and conducting inspections to confirm process remains within specification
- monitoring supply and flow of materials to and from the process
- taking corrective action in response to out-of-specification results
- responding to and/or reporting equipment failure within level of responsibility
- locating emergency stop functions on equipment
- following isolation and lock-out/tag-out procedures to take process and related equipment off-line in preparation for cleaning and/or maintenance within level of responsibility
- completing workplace records
- maintaining work area to meet housekeeping standards
- using process control systems according to workplace procedures

- cleaning and sanitising equipment according to workplace procedures
- following relevant work health and safety procedures.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- purpose and basic principles of the production process
- basic operating principles of equipment required to operate the production process, including:
  - main equipment components
  - status and purpose of guards
  - equipment operating capacities and applications
  - the purpose and location of sensors and related feedback instrumentation
- services required and action to take if services are not available
- the flow of this process and the effect of outputs on downstream processes
- quality characteristics to be achieved by the process
- quality requirements of materials and effect of variation on process performance
- operating requirements, parameters and corrective action required where operation is outside specified operating parameters
- typical equipment faults of the production process and related causes, including recognition of signs and symptoms of faulty equipment and early warning signs of potential problems
- methods used to monitor the production process, including inspecting, measuring and testing by the process
- inspection or test points (control points) in the process and the related procedures and recording requirements
- contamination/food safety risks associated with the process and related control measures
- common causes of variation for operating a production process and corrective action required
- work health and safety hazards and controls, including limitations of protective clothing and equipment relevant to the work process
- requirements of different shutdowns as appropriate to the process and workplace production requirements, including emergency and routine shutdowns, and procedures to follow in the event of a power outage
- isolation, lock-out and tag-out procedures and responsibilities required for the operation of the production process
- procedures and responsibility for reporting production and performance information
- environmental issues and controls relevant to the production process, including waste/rework collection and handling procedures
- basic operating principles of process control, including the relationship between control panels and systems and the physical equipment
- cleaning and sanitation procedures required for the production process.



## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - a workplace or an environment that accurately represents workplace conditions
- resources, equipment and materials:
  - personal protective clothing and equipment
  - process and related equipment and services
  - materials to be processed
  - sampling schedules and test procedures and equipment
  - cleaning procedures, materials and equipment
- specifications:
  - work procedures, including advice on safe work practices, food safety, quality and environmental requirements
  - information on equipment capacity and operating parameters
  - production schedule/batch instructions
  - specifications, control points and processing parameters
  - documentation and recording requirements and procedures.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volumes, including Implementation Guides, are available at VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## FBPOPR2047 Operate a portion saw

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 1.0

### Application

This unit of competency describes the skills and knowledge required to set up, operate and monitor a portion saw.

This unit applies to individuals who work under general supervision and exercise limited autonomy in a food processing environment. It typically applies to the production worker responsible for applying basic operating principles to the operation and monitoring of a portion saw.

All work must be carried out to comply with workplace procedures, in accordance with State/Territory work health and safety, and food safety regulations, legislation and standards that apply to the workplace.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

### Pre-requisite Unit

Nil

### Unit Sector

Operational (OPR)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare for work in processing area	1.1 Confirm materials are available to meet operating requirements 1.2 Identify and confirm cleaning and maintenance requirements and status according to work health and safety and food safety

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	requirements 1.3 Wear appropriate personal protective clothing and ensure correct fit
2. Prepare portion saw for operation	2.1 Fit machine components and related attachments and adjust to meet operating requirements 2.2 Ensure safety guards and covers are in place 2.3 Carry out pre-start checks according to work health and safety and operating procedures
3. Operate the portion saw to achieve required outcome	3.1 Position portions to be cut according to operational requirements 3.2 Pass portion over the blade and cut to meet specifications 3.3 Monitor equipment to identify variation in operating conditions and report maintenance requirements 3.4 Monitor quality and accuracy of cuts to confirm that specifications are met 3.5 Inspect and clean equipment according to workplace procedures and food safety requirements 3.6 Follow and apply workplace housekeeping and environmental procedures 3.7 Maintain workplace records according to workplace procedures

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"> <li>Interpret workplace and standard operating procedures relevant to job role</li> <li>Interpret production requirements</li> </ul>
Writing	<ul style="list-style-type: none"> <li>Record operating, routine maintenance and shutdown information on paper-based and electronic media</li> </ul>
Numeracy	<ul style="list-style-type: none"> <li>Monitor and interpret production and process control indicators and data</li> </ul>

Skill	Description
	<ul style="list-style-type: none"> <li>Monitor supply and flow of materials to and from the process</li> </ul>
Navigate the world of work	<ul style="list-style-type: none"> <li>Apply workplace procedures to own role and responsibilities</li> <li>Identify skills, knowledge and experience required for performing own role in the workplace</li> <li>Ask questions to clarify understanding or seek further information</li> </ul>
Interact with others	<ul style="list-style-type: none"> <li>Communicate and report operational and safety information to relevant personnel</li> <li>Use modes of communication suitable to purpose to confirm understanding when conducting operational start-up and shutdown procedures</li> </ul>
Get the work done	<ul style="list-style-type: none"> <li>Access and interpret process control panels and system</li> <li>Maintain a clean and hazard-free work area</li> <li>Identify out-of-specification standards and maintain quality specifications</li> <li>Confirm equipment status and condition</li> <li>Interpret process and equipment information to monitor process and respond to abnormal performance and variations</li> </ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPOPR2047 Operate a portion saw	FDFOP2047A Operate a portion saw	Updated to meet Standards for Training Packages	Equivalent unit

## Links

Companion Volumes, including Implementation Guides, are available at VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# Assessment Requirements for FBPOPR2047 Operate a portion saw

## Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 1.0

## Performance Evidence

An individual demonstrating competency in this unit must satisfy all of the elements and performance criteria of this unit.

There must be evidence that the individual has operated a portion saw on at least one occasion, including:

- accessing workplace information to identify portion requirements
- selecting, fitting and using personal protective clothing and/or equipment, including use of mesh gloves or similar protective clothing
- confirming supply of necessary poultry pieces, including inspecting and removing pieces of unacceptable quality
- conducting pre-start checks, including:
  - inspecting condition of the portion saw to identify blade sharpness and other signs of wear
  - cancelling isolation or lock-outs
  - confirming that equipment is clean and all safety guards are in place and operational
  - ensuring that lighting, guarding and signage around the saw are in position
- collecting portions to be cut
- positioning portions to allow the blade to pass cleanly through
- achieving cut accuracy to meet specifications and workplace standards with minimal waste
- identifying faulty equipment operation and/or blunt blades, and taking corrective action
- responding to and/or reporting equipment failure within level of responsibility
- locating emergency stop functions on equipment
- following isolation and lock-out/tag-out procedures to take the portion saw and related equipment off-line in preparation for cleaning and/or maintenance within level of responsibility
- completing workplace records
- inspecting and cleaning the portion saw and reporting maintenance issues
- maintaining work area to meet housekeeping standards

- following relevant work health and safety procedures.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- quality specifications and characteristics required of portioned product
- portion saw operating procedures, including correct positioning of guards, lighting and safe work practices when working with the saw
- work health and safety hazards and controls, including limitations of protective clothing and equipment relevant to the work process
- contamination/food safety risks associated with the automated cutting process and related control measures, including hygiene and sanitation requirements when handling product
- grading/downgrading specifications for portioned product
- typical equipment faults and related causes for operating a portion saw, including:
  - signs and symptoms of faulty equipment
  - early warning signs of potential problems
- isolation, lock-out and tag-out procedures and responsibilities for operating a portion saw
- procedures and responsibility for reporting production and performance information
- procedures for cleaning and for reporting maintenance requirements for operating a portion saw
- waste handling requirements and procedures for operating a portion saw
- routine maintenance procedures required for operating a portion saw.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - a workplace or an environment that accurately represents workplace conditions
- resources, equipment and materials:
  - personal protective clothing and equipment, including a mesh glove
  - portion saw and related equipment and services
  - carcasses/pieces to be cut into portions
  - cleaning procedures, materials and equipment
- specifications:
  - work procedures, including advice on safe work practices, food safety, quality and environmental requirements
  - information on equipment capacity and operating parameters
  - production schedule/batch instructions
  - specifications, control points and processing parameters
  - documentation and recording requirements and procedures.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volumes, including Implementation Guides, are available at VETNet -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## FBPOPR2048 Pre-process raw materials

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 1.0

### Application

This unit of competency describes the skills and knowledge required to set up, operate, monitor and shut down machinery used for the preparation of raw materials.

This unit applies to individuals who work under general supervision and exercise limited autonomy in a food processing environment. It typically applies to the production worker responsible for applying basic operating principles to the operation and monitoring of machinery used for the preparation of raw materials.

All work must be carried out to comply with workplace procedures, in accordance with State/Territory work health and safety, and food safety regulations, legislation and standards that apply to the workplace.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

### Pre-requisite Unit

Nil

### Unit Sector

Operational (OPR)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare for work in processing area	1.1 Confirm materials are available to meet operating requirements 1.2 Identify and confirm cleaning and maintenance requirements and status according to work health and safety and food safety



Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	requirements 1.3 Wear appropriate personal protective clothing and ensure correct fit
2. Prepare for pre-processing	2.1 Fit machine components and related attachments and adjust to meet operating requirements 2.2 Enter processing and operating parameters to meet safety and production requirements 2.3 Check equipment performance and adjust according to production requirements 2.4 Carry out pre-start checks according to work health and safety and operating procedures
3. Operate and monitor the pre-processing process	3.1 Start, operate and monitor the process for variation in operating conditions 3.2 Monitor the process to confirm that temperature specifications are met 3.3 Identify, rectify and report out-of-specification equipment, product or process outcomes according to workplace requirements 3.4 Follow and workplace housekeeping and environmental procedures
4. Shut down the pre-processing process	4.1 Identify the appropriate shutdown procedure 4.2 Shut down the process according to work health and safety and operating procedures 4.3 Identify and report maintenance requirements according to workplace procedures 4.4 Maintain workplace records according to workplace procedures

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
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Skill	Description
Reading	<ul style="list-style-type: none"> <li>Interpret workplace and standard operating procedures relevant to job role</li> <li>Interpret production requirements</li> </ul>
Writing	<ul style="list-style-type: none"> <li>Record operating, routine maintenance and shutdown information on paper-based and electronic media</li> </ul>
Numeracy	<ul style="list-style-type: none"> <li>Monitor and interpret production and process control indicators and data</li> <li>Monitor supply and flow of materials to and from the process</li> </ul>
Navigate the world of work	<ul style="list-style-type: none"> <li>Apply workplace procedures to own role and responsibilities</li> <li>Identify skills, knowledge and experience required for performing own role in the workplace</li> <li>Ask questions to clarify understanding or seek further information</li> </ul>
Interact with others	<ul style="list-style-type: none"> <li>Communicate and report operational and safety information to relevant personnel</li> <li>Use modes of communication suitable to purpose to confirm understanding when conducting operational start-up and shutdown procedures</li> </ul>
Get the work done	<ul style="list-style-type: none"> <li>Access and interpret process control panels and system</li> <li>Maintain a clean and hazard-free work area</li> <li>Identify out-of-specification standards and maintain quality specifications</li> <li>Confirm equipment status and condition</li> <li>Interpret process and equipment information to monitor process and respond to abnormal performance and variations</li> </ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPOPR2048 Pre-process raw materials	FDFOP2048A Pre-process raw materials	Updated to meet Standards for Training Packages	Equivalent unit

## Links

Companion Volumes, including Implementation Guides, are available at VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>



# Assessment Requirements for FBOPR2048 Pre-process raw materials

## Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 1.0

## Performance Evidence

An individual demonstrating competency in this unit must satisfy all of the elements and performance criteria of this unit.

There must be evidence that the individual has pre-processed raw materials on at least one occasion, including:

- accessing workplace information to identify processing requirements
- selecting, fitting and using personal protective clothing and/or equipment
- confirming supply of necessary materials and services
- conducting pre-start checks on machinery and equipment required to pre-process raw materials, including:
  - inspecting equipment condition to identify any signs of wear
  - selecting appropriate settings and/or related parameters
  - cancelling isolation or lock-outs
  - confirming that equipment is clean and correctly configured for processing requirements
  - positioning sensors and controls correctly
  - ensuring any scheduled maintenance has been carried out
  - confirming that all safety guards are in place and operational
- loading or transferring materials to pre-processing equipment
- starting, operating and adjusting process equipment to achieve required outcomes, including monitoring control points and conducting inspections to confirm process remains within specification
- monitoring supply and flow of materials to and from the process
- taking corrective action in response to out-of-specification results
- responding to and/or reporting equipment failure within level of responsibility
- locating emergency stop functions on equipment
- following isolation and lock-out/tag-out procedures to take process and related equipment off-line in preparation for cleaning and/or maintenance within level of responsibility
- completing workplace records

- maintaining work area to meet housekeeping standards
- using process control systems according to workplace procedures
- cleaning and sanitising equipment according to workplace procedures
- following relevant work health and safety procedures.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- purpose and basic principles of pre-processing raw materials
- basic operating principles of equipment used in the pre-process raw materials, including:
  - main equipment components
  - status and purpose of guards
  - equipment operating capacities and applications
  - the purpose and location of sensors and related feedback instrumentation
- the flow of the process and the effect of product output on downstream processes
- quality characteristics to be achieved at the pre-processing stage
- effect of raw material characteristics on process performance
- operating requirements and parameters of machinery used in the pre-processing of raw materials, and corrective action required where operation is outside specified operating parameters
- typical equipment faults and related causes, including signs and symptoms of faulty equipment and early warning signs of potential problems
- techniques used to monitor the process, including inspecting, measuring and testing by the process
- inspection or test points (control points) in the process and the related procedures and recording requirements
- contamination/food safety risks associated with pre-processing and related control measures
- common causes of variation in the pre-processing of raw materials and corrective action required
- work health and safety hazards and controls, including limitations of protective clothing and equipment relevant to the work process
- requirements of different shutdowns as appropriate to the process and workplace production requirements, including emergency and routine shutdowns, and procedures to follow in the event of a power outage
- isolation, lock-out and tag-out procedures and responsibilities required for machinery and equipment used for the preparation of raw materials
- procedures and responsibility for reporting production and performance information
- environmental issues and controls relevant to the process, including waste/rework collection and handling procedures related to the process
- basic operating principles of process control, including the relationship between control panels and systems and the physical equipment
- cleaning and sanitation procedures required for pre-processing raw materials.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - a workplace or an environment that accurately represents workplace conditions
- resources, equipment and materials:
  - personal protective clothing and equipment
  - raw materials
  - workplace records
- specifications:
  - work procedures, including advice on safe work practices, food safety, quality and environmental requirements
  - production schedule and batch instructions
  - quality criteria, specifications and inspection procedures
  - documentation and recording requirements and procedures.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volumes, including Implementation Guides, are available at VETNet -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## FBPOPR2049 Operate a reduction process

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 1.0

### Application

This unit of competency describes the skills and knowledge required to set up, operate, adjust and shut down a reduction process.

This unit applies to individuals who work under general supervision and exercise limited autonomy in a food processing environment. It typically applies to the production worker responsible for applying basic operating principles to the operation and monitoring of a reduction process and associated equipment.

All work must be carried out to comply with workplace procedures, in accordance with State/Territory work health and safety, and food safety regulations, legislation and standards that apply to the workplace.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

### Pre-requisite Unit

Nil

### Unit Sector

Operational (OPR)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare for work in processing area	1.1 Read or listen to work instructions from supervisor and clarify where needed

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	<p>1.2 Confirm materials are available to meet operating requirements</p> <p>1.3 Identify and confirm cleaning and maintenance requirements and status according to work health and safety and food safety requirements</p> <p>1.4 Wear appropriate personal protective clothing and ensure correct fit</p>
2. Prepare the reduction equipment and process for operation	<p>2.1 Fit machine components and related attachments and adjust to meet operating requirements</p> <p>2.2 Enter processing and operating parameters to meet safety and production requirements</p> <p>2.3 Check equipment performance and adjust according to operating procedures</p> <p>2.4 Carry out pre-start checks according to work health and safety and operating procedures</p>
3. Operate and monitor the reduction process	<p>3.1 Start, operate and monitor the process for variation in operating conditions</p> <p>3.2 Monitor the process to confirm that particle size and flour extraction rates meet production specifications</p> <p>3.3 Identify, rectify and report out-of-specification equipment, product or process outcomes according to workplace requirements</p> <p>3.4 Segregate by-product generated from the reduction process and transfer to designated storage area according to food safety requirements</p> <p>3.5 Follow and apply workplace housekeeping and environmental procedures</p>
4. Shut down the reduction process	<p>4.1 Identify the appropriate shutdown procedure</p> <p>4.2 Shut down the process according to work health and safety and operating procedures</p> <p>4.3 Identify and report maintenance requirements according to workplace procedures</p> <p>4.4 Maintain workplace records according to workplace procedures</p>



## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"> <li>Interpret workplace and standard operating procedures relevant to job role</li> <li>Interpret production requirements</li> </ul>
Writing	<ul style="list-style-type: none"> <li>Record operating, routine maintenance and shutdown information on paper-based and electronic media</li> </ul>
Numeracy	<ul style="list-style-type: none"> <li>Monitor and interpret production and process control indicators and data</li> <li>Monitor supply and flow of materials to and from the process</li> </ul>
Navigate the world of work	<ul style="list-style-type: none"> <li>Apply workplace procedures to own role and responsibilities</li> <li>Identify skills, knowledge and experience required for performing own role in the workplace</li> <li>Ask questions to clarify understanding or seek further information</li> </ul>
Interact with others	<ul style="list-style-type: none"> <li>Communicate and report operational and safety information to relevant personnel</li> <li>Use modes of communication suitable to purpose to confirm understanding when conducting operational start-up and shutdown procedures</li> </ul>
Get the work done	<ul style="list-style-type: none"> <li>Access and interpret process control panels and system</li> <li>Maintain a clean and hazard-free work area</li> <li>Identify out-of-specification standards and maintain quality specifications</li> <li>Confirm equipment status and condition</li> <li>Interpret process and equipment information to monitor process and respond to abnormal performance and variations</li> </ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPOPR2049 Operate a reduction process	FDFOP2049A Operate a reduction process	Updated to meet Standards for Training Packages	Equivalent unit

## Links

Companion Volumes, including Implementation Guides, are available at VETNet -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# Assessment Requirements for FBPOPR2049 Operate a reduction process

## Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 1.0

## Performance Evidence

An individual demonstrating competency in this unit must satisfy all of the elements and performance criteria of this unit.

There must be evidence that the individual has operated a reduction process on at least one occasion, including:

- accessing workplace information to identify reduction process requirements
- selecting, fitting and using personal protective clothing and/or equipment
- confirming supply of necessary materials and services
- conducting pre-start checks, including:
  - inspecting equipment condition to identify any signs of wear
  - selecting appropriate settings and/or related parameters
  - cancelling isolation or lock-outs
  - confirming that related equipment is clean and correctly configured for reduction process requirements
  - positioning sensors and controls correctly
  - ensuring any scheduled maintenance has been carried out
  - confirming that all safety guards are in place and operational
- starting, operating, monitoring and adjusting reduction process equipment to achieve required outcomes, including monitoring control points and conducting inspections to confirm process remains within specification, including:
  - correct product type/quantity
  - roll releases
  - even spread of feed across rolls
  - mill balance
  - even grind/correct particle size
- monitoring supply and flow of materials to and from the reduction process
- taking corrective action in response to out-of-specification results
- responding to and/or reporting equipment failure within level of responsibility

- locating emergency stop functions on equipment
- following isolation and lock-out/tag-out procedures to take reduction process and related equipment off-line in preparation for cleaning and/or maintenance within level of responsibility
- completing workplace records
- maintaining work area to meet housekeeping standards
- using process control systems according to workplace procedures
- cleaning and sanitising equipment according to workplace procedures
- following relevant work health and safety procedures.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- purpose and basic principles of the reduction process
- basic operating principles of equipment for the reduction process, including:
  - main equipment components
  - status and purpose of guards
  - equipment operating capacities and applications
  - the purpose and location of sensors and related feedback instrumentation
- services required and action to take if services are not available
- the flow of the reduction process and the effect of outputs on downstream flour milling processes
- quality characteristics to be achieved by the reduction process
- quality requirements of materials and effect of variation on reduction process performance
- operating requirements and parameters and corrective action required where operation is outside specified operating parameters
- typical equipment faults and related causes associated with operating a reduction process, including:
  - signs and symptoms of faulty equipment
  - early warning signs of potential problems
- methods used to monitor the reduction process, including inspecting, measuring and testing by the process
- inspection or test points (control points) in the reduction process and the related procedures and recording requirements
- contamination/food safety risks associated with the reduction process and related control measures
- common causes of variation associated with operating a reduction process and corrective action required
- work health and safety hazards and controls relevant to operating a reduction process, including limitations of protective clothing and equipment relevant to the work process

- requirements of different shutdowns as appropriate to the reduction process and workplace production requirements, including emergency and routine shutdowns, and procedures to follow in the event of a power outage
- isolation, lock-out and tag-out procedures and responsibilities required for operating a reduction process
- procedures and responsibility for reporting production and performance information
- environmental issues and controls relevant to the reduction process, including waste/rework collection and handling procedures related to the process
- basic operating principles of process control, including the relationship between control panels and systems and the physical equipment
- cleaning and sanitation procedures required to operate a reduction process.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - a workplace or an environment that accurately represents workplace conditions
- resources, equipment and materials:
  - personal protective clothing and equipment
  - reduction process and related equipment and services
  - stock to be processed
  - sampling schedules and test procedures and equipment
  - cleaning procedures, materials and equipment
- specifications:
  - work procedures, including advice on safe work practices, food safety, quality and environmental requirements
  - information on equipment capacity and operating parameters
  - production schedule/batch instructions
  - specifications, control points and processing parameters
  - documentation and recording requirements and procedures.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volumes, including Implementation Guides, are available at VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## FBPOPR2050 Operate a separation process

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 1.0

### Application

This unit of competency describes the skills and knowledge required to set up, operate, adjust and shut down a separation process.

This unit applies to individuals who work under general supervision and exercise limited autonomy in a food processing environment. It typically applies to the production worker responsible for applying basic operating principles to the operation and monitoring of a separation process and associated equipment.

All work must be carried out to comply with workplace procedures, in accordance with State/Territory work health and safety, and food safety regulations, legislation and standards that apply to the workplace.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

### Pre-requisite Unit

Nil

### Unit Sector

Operational (OPR)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare for work in processing area	1.1 Confirm materials are available to meet operating requirements 1.2 Identify and confirm cleaning and maintenance requirements and status according to work health and safety and food safety

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	requirements 1.3 Wear appropriate personal protective clothing and ensure correct fit
2. Prepare the separation process for operation	2.1 Fit machine components and related attachments and adjust to meet operating requirements 2.2 Enter processing and operating parameters as required to meet safety and production requirements 2.3 Check equipment performance and adjust as required according to operating procedures 2.4 Carry out pre-start checks according to work health and safety and operating requirements
3. Operate and monitor the separation process	3.1 Start, operate and monitor the process for variation in operating conditions 3.2 Monitor the process to confirm that specifications are met 3.3 Identify, rectify and report out-of-specification equipment, product or process outcomes according to workplace requirements 3.4 Follow and apply workplace housekeeping and environmental procedures
4. Shut down the separation process	4.1 Identify the appropriate shutdown procedure 4.2 Shut down the process according to work health and safety and operating requirements 4.3 Identify and report maintenance requirements according to workplace procedures 4.4 Maintain workplace records according to workplace procedures

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
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Skill	Description
Reading	<ul style="list-style-type: none"> <li>Interpret workplace and standard operating procedures relevant to job role</li> <li>Interpret production requirements</li> </ul>
Writing	<ul style="list-style-type: none"> <li>Record operating, routine maintenance and shutdown information on paper-based and electronic media</li> </ul>
Numeracy	<ul style="list-style-type: none"> <li>Monitor and interpret production and process control indicators and data</li> <li>Monitor supply and flow of materials to and from the process</li> </ul>
Navigate the world of work	<ul style="list-style-type: none"> <li>Apply workplace procedures to own role and responsibilities</li> <li>Identify skills, knowledge and experience required for performing own role in the workplace</li> <li>Ask questions to clarify understanding or seek further information</li> </ul>
Interact with others	<ul style="list-style-type: none"> <li>Communicate and report operational and safety information to relevant personnel</li> <li>Use modes of communication suitable to purpose to confirm understanding when conducting operational start-up and shutdown procedures</li> </ul>
Get the work done	<ul style="list-style-type: none"> <li>Access and interpret process control panels and system</li> <li>Maintain a clean and hazard-free work area</li> <li>Identify out-of-specification standards and maintain quality specifications</li> <li>Confirm equipment status and condition</li> <li>Interpret process and equipment information to monitor process and respond to abnormal performance and variations</li> </ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPOPR2050 Operate a separation process	FDFOP2050A Operate a separation process	Updated to meet Standards for Training Packages	Equivalent unit



## Links

Companion Volumes, including Implementation Guides, are available at VETNet -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# Assessment Requirements for FBOPR2050 Operate a separation process

## Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 1.0

## Performance Evidence

An individual demonstrating competency in this unit must satisfy all of the elements and performance criteria of this unit.

There must be evidence that the individual has operated a separation process on at least one occasion, including:

- accessing workplace information to identify separation processing requirements
- selecting, fitting and using personal protective clothing and/or equipment
- confirming supply of necessary materials and services
- conducting pre-start checks, including:
  - inspecting equipment condition to identify any signs of wear
  - confirming that the correct bowl is fitted
  - selecting appropriate settings and/or related parameters
  - cancelling isolation or lock-outs as required
  - confirming that equipment is clean and correctly configured for processing requirements
  - positioning sensors and controls correctly
  - ensuring any scheduled maintenance has been carried out
  - confirming that all safety guards are in place and operational
- starting, operating, monitoring and adjusting separation process equipment to achieve required outcomes, including monitoring control points and conducting inspections as required to confirm process remains within specification, including:
  - separation speed
  - solids in in-feed and out-feed streams (this is typically done by in-line refractometers, Baume tests and spin tests)
  - flow rates
  - time/temperatures
  - pressures
  - air/water/oil levels

- condition of seals and valves
- discharge/desludging
- monitoring supply and flow of materials to and from the separation process
- taking corrective action in response to out-of-specification results
- responding to and/or reporting equipment failure within level of responsibility
- locating emergency stop functions on equipment
- shutting down separation process equipment in response to emergency situation
- following isolation and lock-out/tag-out procedures as required to take separation process and related equipment off-line in preparation for cleaning and/or maintenance within level of responsibility
- cleaning and sanitising equipment
- completing workplace records as required
- maintaining work area to meet housekeeping standards
- using process control systems according to workplace procedures.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- purpose and basic principles of the separation process, including stages and changes that occur during the separation process
- basic operating principles of equipment for the separation process, including:
  - safety hazards associated with separation equipment and the implications of interchanging parts/incorrect bowl balance
  - main equipment components
  - status and purpose of guards
  - equipment operating capacities and applications
  - the purpose and location of sensors and related feedback instrumentation
  - services required for operation of separation equipment used in the workplace
- the flow of the separation process and the effect of product output on downstream processes
- impact of in-feed quality and concentration levels on the separation process
- quality characteristics and uses of separation process outputs
- methods used to monitor the separation process, including inspecting, measuring and testing in-feed and out-feed solids, and other tests as required by the process
- inspection or test points (control points) in the separation process and the related procedures and recording requirements
- operating requirements and parameters and corrective action required where operation is outside specified operating parameters
- typical equipment faults and related causes, including signs and symptoms of faulty equipment and early warning signs of potential problems
- common causes of variation and corrective action required, including how variation in temperature and solids affects the process

- spoilage and other food safety risks associated with separation, and related control measures
- work health and safety hazards and controls, including limitations of protective clothing and equipment relevant to the work process
- requirements of different shutdowns as appropriate to the process and workplace production requirements, including emergency and routine shutdowns, and procedures to follow in the event of a power outage
- isolation, lock-out and tag-out procedures and responsibilities required for operating the separation process
- cleaning and sanitation procedures required for operating the separation process
- procedures and responsibility for reporting production and performance information
- environmental issues and controls relevant to the operation of the separation process, including handling of effluent
- basic operating principles of process control where relevant, including the relationship between control panels and systems and the physical equipment.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - a workplace or an environment that accurately represents workplace conditions
- resources, equipment and materials:
  - personal protective clothing and equipment
  - separation process and related equipment and services
  - materials required for the separation process
  - sampling schedules and test procedures and equipment as required
  - routine preventative maintenance schedule as required
  - cleaning procedures, materials and equipment
- specifications:
  - work procedures, including advice on safe work practices, food safety, quality and environmental requirements, stock flow systems, production schedules, batch/recipe instructions
  - information on equipment capacity and operating parameters
  - production schedule and batch instructions
  - specifications, control points and processing parameters
  - documentation and recording requirements and procedures.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volumes, including Implementation Guides, are available at VETNet -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## FBPOPR2051 Operate a spreads production process

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 1.0

### Application

This unit of competency describes the skills and knowledge required to set up, operate, adjust and shut down a spreads production process.

This unit applies to individuals who work under general supervision and exercise limited autonomy in a food processing environment. It typically applies to the production worker responsible for applying basic operating principles to the operation and monitoring of a spreads production process and associated equipment.

All work must be carried out to comply with workplace procedures, in accordance with State/Territory work health and safety, and food safety regulations, legislation and standards that apply to the workplace.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

### Pre-requisite Unit

Nil

### Unit Sector

Operational (OPR)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare for work in processing area	1.1 Confirm materials are available to meet operating requirements 1.2 Identify and confirm cleaning and maintenance requirements and

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	status according to work health and safety and food safety requirements 1.3 Wear appropriate personal protective clothing and ensure correct fit
2. Prepare the spreads equipment and process for operation	2.1 Fit machine components and related attachments and adjust to meet operating requirements 2.2 Enter processing and operating parameters to meet safety and production requirements 2.3 Check equipment performance and adjust according to operating procedures 2.4 Carry out pre-start checks according to work health and safety and operating procedures
3. Operate and monitor the spreads process	3.1 Start, operate and monitor the process for variation in operating conditions 3.2 Monitor the process to confirm that specifications are met 3.3 Identify, rectify and report out-of-specification equipment, product or process outcomes according to workplace requirements 3.4 Follow and apply workplace housekeeping and environmental procedures
4. Shut down the spreads process	4.1 Identify the appropriate shutdown procedure 4.2 Shut down the process according to work health and safety and operating procedures 4.3 Identify and report maintenance requirements according to workplace procedures 4.4 Maintain workplace records according to workplace procedures

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
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Skill	Description
Reading	<ul style="list-style-type: none"> <li>Interpret workplace and standard operating procedures relevant to job role</li> <li>Interpret production requirements</li> </ul>
Writing	<ul style="list-style-type: none"> <li>Record operating, routine maintenance and shutdown information on paper-based and electronic media</li> </ul>
Numeracy	<ul style="list-style-type: none"> <li>Monitor and interpret production and process control indicators and data</li> <li>Monitor supply and flow of materials to and from the process</li> </ul>
Navigate the world of work	<ul style="list-style-type: none"> <li>Apply workplace procedures to own role and responsibilities</li> <li>Identify skills, knowledge and experience required for performing own role in the workplace</li> <li>Ask questions to clarify understanding or seek further information</li> </ul>
Interact with others	<ul style="list-style-type: none"> <li>Communicate and report operational and safety information to relevant personnel</li> <li>Use modes of communication suitable to purpose to confirm understanding when conducting operational start-up and shutdown procedures</li> </ul>
Get the work done	<ul style="list-style-type: none"> <li>Access and interpret process control panels and system</li> <li>Maintain a clean and hazard-free work area</li> <li>Identify out-of-specification standards and maintain quality specifications</li> <li>Confirm equipment status and condition</li> <li>Interpret process and equipment information to monitor process and respond to abnormal performance and variations</li> </ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPOPR2051 Operate a spreads production process	FDFOP2051A Operate a spreads production process	Updated to meet Standards for Training Packages	Equivalent unit



## Links

Companion Volumes, including Implementation Guides, are available at VETNet -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## Assessment Requirements for FBPOPR2051 Operate a spreads production process

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 1.0

### Performance Evidence

An individual demonstrating competency in this unit must satisfy all of the elements and performance criteria of this unit.

There must be evidence that the individual has operated a spreads production process on at least one occasion, including:

- accessing workplace information to identify processing requirements
- selecting, fitting and using personal protective clothing and/or equipment
- confirming supply of necessary materials and services
- conducting pre-start checks, including:
  - inspecting equipment condition to identify any signs of wear
  - selecting appropriate settings and/or related parameters
  - cancelling isolation or lock-outs
  - confirming that related equipment is clean and correctly configured for processing requirements
  - positioning sensors and controls correctly
  - ensuring any scheduled maintenance has been carried out
  - confirming that all safety guards are in place and operational
- starting, operating, monitoring and adjusting process equipment to achieve required outcomes, including monitoring control points and conducting inspections to confirm process remains within specification, including:
  - temperature
  - work input
  - throughput
  - pressures
  - crystal formation
- monitoring supply and flow of materials to and from the process
- taking corrective action in response to out-of-specification results
- responding to and/or reporting equipment failure within level of responsibility

- locating emergency stop functions on equipment
- follow isolation and lock-out/tag-out procedures to take process and related equipment off-line in preparation for cleaning and/or maintenance within level of responsibility
- completing workplace records
- maintaining work area to meet housekeeping standards
- using process control systems according to workplace procedures
- cleaning and sanitising equipment according to workplace procedures
- following relevant work health and safety procedures.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- purpose and basic principles of spreads preparation, including:
  - crystallisation
  - relationship between stages of crystal formation, work input and temperature
  - stages involved in the process
- basic operating principles of equipment for the spreads production process, including:
  - main equipment components
  - status and purpose of guards
  - equipment operating capacities and applications
  - purpose and location of sensors and related feedback instrumentation
- services required for the spreads production process and action to take if services are not available
- the flow of the spreads production process and the effect of outputs on downstream processes
- quality characteristics required of the finished product
- quality requirements of oil or emulsion for processing and the effect of variation on process performance
- operating requirements and parameters and corrective action required where operation is outside specified operating parameters
- typical equipment faults and related causes of the spreads production process, including signs and symptoms of faulty equipment and early warning signs of potential problems
- methods used to monitor the spreads production process, including inspecting, measuring and testing by the process
- inspection or test points (control points) in the process and the related procedures and recording requirements
- contamination/food safety risks associated with the process and related control measures
- common causes of variation associated with a spreads production process and corrective action required
- work health and safety hazards and controls relevant to operating the spreads production process

- requirements of different shutdowns as appropriate to the process and workplace production requirements, including emergency and routine shutdowns, and procedures to follow in the event of a power outage
- isolation, lock-out and tag-out procedures and responsibilities for the spreads production process
- procedures and responsibility for reporting production and performance information
- environmental issues and controls relevant to the process, including waste/rework collection and handling procedures related to the process
- basic operating principles of process control, including the relationship between control panels and systems and the physical equipment
- cleaning and sanitation procedures relevant to operating the spreads production process.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - a workplace or an environment that accurately represents workplace conditions
- resources, equipment and materials:
  - personal protective clothing and equipment
  - spread processing and related equipment and services
  - emulsion or oil to be processed
  - sampling schedules and test procedures and equipment
  - cleaning procedures, materials and equipment
- specifications:
  - work procedures, including advice on safe work practices, food safety, quality and environmental requirements
  - information on equipment capacity and operating parameters
  - production schedule/batch instructions
  - specifications, control points and processing parameters
  - documentation and recording requirements and procedures.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volumes, including Implementation Guides, are available at VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## FBPOPR2052 Operate a chocolate tempering process

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 1.0

### Application

This unit of competency describes the skills and knowledge required to set up, operate, adjust and shut down a chocolate tempering process.

This unit applies to individuals who work under general supervision and exercise limited autonomy in a food processing environment. It typically applies to the production worker responsible for applying basic operating principles to the operation and monitoring of a chocolate tempering process and associated equipment.

All work must be carried out to comply with workplace procedures, in accordance with State/Territory work health and safety, and food safety regulations, legislation and standards that apply to the workplace.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

### Pre-requisite Unit

Nil

### Unit Sector

Operational (OPR)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare for work in processing area	1.1 Confirm chocolate for tempering is available to meet operating requirements

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	<p>1.2 Identify and confirm cleaning and maintenance requirements and status according to work health and safety and food safety requirements</p> <p>1.3 Wear appropriate personal protective clothing and ensure correct fit</p>
2. Prepare the tempering equipment and process for operation	<p>2.1 Fit machine components and related attachments and adjust to meet operating requirements</p> <p>2.2 Enter processing and operating parameters to meet safety and production requirements</p> <p>2.3 Check equipment performance and adjust according to operating procedures</p> <p>2.4 Carry out pre-start checks according to work health and safety and operating procedures</p>
3. Operate and monitor the tempering process	<p>3.1 Start, operate and monitor the process for variation in operating conditions</p> <p>3.2 Conduct and interpret temper tests and make required adjustments</p> <p>3.3 Monitor the process to confirm that specifications are met</p> <p>3.4 Identify, rectify and report out-of-specification equipment, product or process outcomes according to workplace requirements</p> <p>3.5 Follow and apply workplace housekeeping and environmental procedures</p>
4. Shut down the tempering process	<p>4.1 Identify the appropriate shutdown procedure</p> <p>4.2 Shut down the process according to work health and safety and operating procedures</p> <p>4.3 Identify and report maintenance requirements according to workplace requirements</p> <p>4.4 Maintain workplace records according to workplace requirements</p>

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"> <li>Interpret workplace and standard operating procedures relevant to job role</li> <li>Interpret production requirements</li> </ul>
Writing	<ul style="list-style-type: none"> <li>Record operating, routine maintenance and shutdown information on paper-based and electronic media</li> </ul>
Numeracy	<ul style="list-style-type: none"> <li>Monitor and interpret production and process control indicators and data</li> <li>Monitor supply and flow of materials to and from the process</li> </ul>
Navigate the world of work	<ul style="list-style-type: none"> <li>Apply workplace procedures to own role and responsibilities</li> <li>Identify skills, knowledge and experience required for performing own role in the workplace</li> <li>Ask questions to clarify understanding or seek further information</li> </ul>
Interact with others	<ul style="list-style-type: none"> <li>Communicate and report operational and safety information to relevant personnel</li> <li>Use modes of communication suitable to purpose to confirm understanding when conducting operational start-up and shutdown procedures</li> </ul>
Get the work done	<ul style="list-style-type: none"> <li>Access and interpret process control panels and system</li> <li>Maintain a clean and hazard-free work area</li> <li>Identify out-of-specification standards and maintain quality specifications</li> <li>Confirm equipment status and condition</li> <li>Interpret process and equipment information to monitor process and respond to abnormal performance and variations</li> </ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPOPR2052 Operate a chocolate tempering process	FDFOP2052A Operate a chocolate tempering process	Updated to meet Standards for Training Packages	Equivalent unit

## Links

Companion Volumes, including Implementation Guides, are available at VETNet -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>



## Assessment Requirements for FBPOPR2052 Operate a chocolate tempering process

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 1.0

### Performance Evidence

An individual demonstrating competency in this unit must satisfy all of the elements and performance criteria of this unit.

There must be evidence that the individual has operated a chocolate tempering process on at least one occasion, including:

- accessing workplace information to identify tempering process requirements
- selecting, fitting and using personal protective clothing and/or equipment
- confirming supply of necessary materials and services
- conducting pre-start checks, including:
  - inspecting equipment condition to identify any signs of wear
  - selecting appropriate settings and/or related parameters
  - cancelling isolation or lock-outs
  - confirming that equipment is clean and correctly configured for processing requirements
  - positioning sensors and controls correctly
  - ensuring any scheduled maintenance has been carried out
  - confirming that all safety guards are in place and operational
- starting, operating, monitoring and adjusting tempering process equipment to achieve required outcomes, including monitoring control points and conducting inspections to confirm process remains within specification, including:
  - setting pump speeds
  - checking temperature/zone settings
  - checking chocolate temperatures
- monitoring supply and flow of materials to and from the tempering process and equipment operation to confirm process remains within specification
- conducting temper test, interpreting results and determining adjustments
- taking corrective action in response to out-of-specification results
- responding to and/or reporting equipment failure within level of responsibility

- locating emergency stop functions on equipment
- following isolation and lock-out/tag-out procedures to take tempering process and related equipment off-line in preparation for cleaning and/or maintenance within level of responsibility
- completing workplace records
- maintaining work area to meet housekeeping standards
- using process control systems according to workplace procedures
- conducting routine maintenance according to workplace procedures
- cleaning and sanitising equipment according to workplace procedures
- following relevant work health and safety procedures.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- purpose and basic principles of the tempering process, including:
  - basic understanding of the crystallisation behaviour of cocoa fat
  - relationship between crystal forms and melting points/temperatures
  - process stages, including heating, cooling, agitating, reheating and effect of each of these on outcomes
- basic operating principles of equipment for the tempering process, including:
  - main equipment components
  - temperature zones
  - status and purpose of guards
  - equipment operating capacities and applications
  - purpose and location of sensors and related feedback instrumentation
- services required for the chocolate tempering process and action to take if services are not available
- the flow of the tempering process and the effect of outputs on downstream processes
- quality characteristics required of chocolate for tempering and the effect of variation on tempering process performance
- operating requirements and parameters and corrective action required where operation is outside specified operating parameters
- typical equipment faults and related causes, including signs and symptoms of faulty equipment and early warning signs of potential problems
- methods used to monitor the tempering process, including temper test procedures and the significance of results for tempering process adjustments
- inspection or test points (control points) in the process and the related procedures and recording requirements
- contamination/food safety risks associated with the tempering process and related control measures
- common causes of variation related to the chocolate tempering process and corrective action required

- work health and safety hazards and controls related to the chocolate tempering process
- requirements of different shutdowns as appropriate to the tempering process and workplace production requirements, including emergency and routine shutdowns, and procedures to follow in the event of a power outage
- isolation, lock-out and tag-out procedures and responsibilities relevant to the chocolate tempering process
- procedures and responsibility for reporting production and performance information
- environmental issues and controls relevant to the tempering process, including waste/rework collection and handling procedures related to the process
- basic operating principles of process control, including the relationship between control panels and systems and the physical equipment
- cleaning and sanitation procedures for operating the chocolate tempering process.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - a workplace or an environment that accurately represents workplace conditions
- resources, equipment and materials:
  - personal protective clothing and equipment
  - process and related equipment and services
  - chocolate to be tempered
  - tempermeter
  - sampling schedules and test procedures and equipment
  - cleaning procedures, materials and equipment
- specifications:
  - work procedures, including advice on safe work practices, food safety, quality and environmental requirements
  - information on equipment capacity and operating parameters
  - recipe/batch instructions
  - specifications, control points and processing parameters
  - documentation and recording requirements and procedures.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volumes, including Implementation Guides, are available at VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## FBPOPR2053 Operate a washing and drying process

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 1.0

### Application

This unit of competency describes the skills and knowledge required to set up, operate, adjust and shut down a washing and drying process.

This unit applies to individuals who work under general supervision and exercise limited autonomy in a food processing environment. It typically applies to the production worker responsible for applying basic operating principles to the operation and monitoring of a washing and drying process and associated equipment.

All work must be carried out to comply with workplace procedures, in accordance with State/Territory work health and safety, and food safety regulations, legislation and standards that apply to the workplace.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

### Pre-requisite Unit

Nil

### Unit Sector

Operational (OPR)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare for work in processing area	1.1 Confirm raw materials are available to meet production requirements

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	<p>1.2 Identify and confirm cleaning and maintenance requirements and status according to work health and safety and food safety requirements</p> <p>1.3 Wear appropriate personal protective clothing and ensure correct fit</p>
2. Prepare the equipment and process for operation	<p>2.1 Fit machine components and related attachments and adjust to meet operating requirements</p> <p>2.2 Enter processing and operating parameters to meet safety and production requirements</p> <p>2.3 Check equipment performance and adjust according to operating procedures</p> <p>2.4 Carry out pre-start checks according to work health and safety and operating procedures</p>
3. Operate and monitor the washing and drying process	<p>3.1 Start, operate and monitor the process for variation in operating conditions</p> <p>3.2 Inspect and wash raw materials to meet workplace specifications</p> <p>3.3 Transfer washed materials to drying stage according to workplace procedures</p> <p>3.4 Dry materials to specification</p> <p>3.5 Identify, rectify and report out-of-specification equipment, product or process outcomes according to workplace requirements</p> <p>3.6 Follow and apply workplace housekeeping and environmental procedures</p>
4. Shut down the washing and drying process	<p>4.1 Identify the appropriate shutdown procedure</p> <p>4.2 Shut down the process according to work health and safety and operating procedures</p> <p>4.3 Identify and report maintenance requirements according to workplace procedures</p> <p>4.4 Maintain workplace records according to workplace procedures</p>

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"> <li>Interpret workplace and standard operating procedures relevant to job role</li> <li>Interpret production requirements</li> </ul>
Writing	<ul style="list-style-type: none"> <li>Record operating, routine maintenance and shutdown information on paper-based and electronic media</li> </ul>
Numeracy	<ul style="list-style-type: none"> <li>Monitor and interpret production and process control indicators and data</li> <li>Monitor supply and flow of materials to and from the process</li> </ul>
Navigate the world of work	<ul style="list-style-type: none"> <li>Apply workplace procedures to own role and responsibilities</li> <li>Identify skills, knowledge and experience required for performing own role in the workplace</li> <li>Ask questions to clarify understanding or seek further information</li> </ul>
Interact with others	<ul style="list-style-type: none"> <li>Communicate and report operational and safety information to relevant personnel</li> <li>Use modes of communication suitable to purpose to confirm understanding when conducting operational start-up and shutdown procedures</li> </ul>
Get the work done	<ul style="list-style-type: none"> <li>Access and interpret process control panels and system</li> <li>Maintain a clean and hazard-free work area</li> <li>Identify out-of-specification standards and maintain quality specifications</li> <li>Confirm equipment status and condition</li> <li>Interpret process and equipment information to monitor process and respond to abnormal performance and variations</li> </ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPOPR2053 Operate a washing and drying process	FDFOP2053A Operate a washing and drying process	Updated to meet Standards for Training Packages	Equivalent unit

## Links

Companion Volumes, including Implementation Guides, are available at VETNet -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## Assessment Requirements for FBPOPR2053 Operate a washing and drying process

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 1.0

### Performance Evidence

An individual demonstrating competency in this unit must satisfy all of the elements and performance criteria of this unit.

There must be evidence that the individual has operated a washing and drying process on at least one occasion, including:

- accessing workplace information to identify production requirements
- selecting, fitting and using personal protective clothing and/or equipment
- confirming supply of necessary raw materials and services
- conducting pre-start checks, including:
  - inspecting equipment condition to identify any signs of wear
  - selecting appropriate settings and/or related parameters
  - cancelling isolation or lock-outs
  - confirming that equipment is clean and correctly configured for processing requirements
  - positioning sensors and controls correctly
  - ensuring any scheduled maintenance has been carried out
  - confirming that all safety guards are in place and operational
- starting, operating, monitoring and adjusting washing and drying equipment to achieve required outcomes, including monitoring control points and conducting inspections to confirm process remains within specification, including:
  - operation of dosing equipment
  - tank/bath or flume water levels
  - related equipment operation (including pumps/conveyors)
  - immersion of raw materials
  - temperatures
  - water quality
  - flow rates
  - drying times



- weight (before and after drying)
- monitoring supply and flow of raw materials to the wash process and from the drying process
- taking corrective action in response to out-of-specification results
- responding to and/or reporting equipment failure within level of responsibility
- locating emergency stop functions on equipment
- following isolation and lock-out/tag-out procedures to take process and related equipment off-line in preparation for cleaning and/or maintenance within level of responsibility
- completing workplace records
- maintaining work area to meet housekeeping standards
- using process control systems according to workplace procedures
- cleaning and sanitising equipment according to workplace procedures
- following relevant work health and safety procedures.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- purpose and basic principles of the washing and drying process, including water quality, the role of sanitisers in the washing process, and of drying technology, including the use of centrifugal force in a drying process
- basic operating principles of equipment used in the washing and drying process, including:
  - main equipment components
  - status and purpose of guards
  - equipment operating capacities and applications
  - purpose and location of sensors and related feedback instrumentation
- services (principally water) required and action to take if services are not available
- the flow of this process and the effect of outputs on downstream processes
- quality characteristics to be achieved by both the washing and drying stages, including consequences of out-of-specification moisture levels on further processing and final product
- quality requirements of raw materials and the effect of variation on process performance, including how variation in microbial load can affect the washing and drying process
- operating requirements, parameters and corrective action required where washing and drying operation is outside specified operating parameters
- typical equipment faults of the washing and drying process and related causes, including:
  - signs and symptoms of faulty equipment
  - early warning signs of potential problems
- methods used to monitor the washing and drying process, including inspecting, measuring and testing by the process
- inspection or test points (control points) in the process and the related procedures and recording requirements

- contamination/food safety risks associated with the process and related control measures
- common causes of variation and corrective action required
- work health and safety hazards and controls relevant to operating a washing and drying process
- requirements of different shutdowns as appropriate to the process and workplace production requirements, including emergency and routine shutdowns, and procedures to follow in the event of a power outage
- isolation, lock-out and tag-out procedures and responsibilities relevant to operating a washing and drying process
- procedures and responsibility for reporting production and performance information
- environmental issues and controls relevant to the process, including waste/rework collection and handling procedures related to the process
- basic operating principles of process control, including the relationship between control panels and systems and the physical equipment
- cleaning and sanitation procedures for operating a washing and drying process.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - a workplace or an environment that accurately represents workplace conditions
- resources, equipment and materials:
  - personal protective clothing and equipment
  - washing and drying equipment and services, including water and sanitiser
  - raw materials to be processed
  - sampling schedules and test procedures and equipment
  - cleaning procedures, materials and equipment
- specifications:
  - work procedures, including advice on safe work practices, food safety, quality and environmental requirements
  - information on equipment capacity and operating parameters
  - production schedule/batch instructions
  - specifications and inspection or control points
  - documentation and recording requirements and procedures.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volumes, including Implementation Guides, are available at VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>



## FBPOPR2054 Operate a water purification process

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 1.0

### Application

This unit of competency describes the skills and knowledge required to set up, operate, adjust and shut down a water purification process.

This unit applies to individuals who work under general supervision and exercise limited autonomy in a food processing environment. It typically applies to the production worker responsible for applying basic operating principles to the operation and monitoring of a water purification process and associated equipment.

All work must be carried out to comply with workplace procedures, in accordance with State/Territory work health and safety, and food safety regulations, legislation and standards that apply to the workplace.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

### Pre-requisite Unit

Nil

### Unit Sector

Operational (OPR)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare for work in processing area	1.1 Confirm materials are available to meet operating requirements 1.2 Identify and confirm cleaning and sanitising requirements and

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	status 1.3 Wear appropriate personal protective clothing and ensure correct fit
2. Prepare the water purification equipment and process for operation	2.1 Complete batch records or process documentation according to workplace procedures 2.2 Enter processing and operating parameters to meet safety and production requirements 2.3 Check equipment performance and adjust as required 2.4 Carry out pre-start checks according to operating procedures
3. Operate and monitor the water purification process	3.1 Start, operate and monitor the process for variation in operating conditions 3.2 Identify hazards and take corrective action according to operating procedure and work health and safety requirements 3.3 Monitor the process to confirm that water purification specifications are met 3.4 Identify, rectify and report out-of-specification equipment, product or process outcomes according to workplace requirements 3.5 Follow and apply work cleaning and environmental working procedures
4. Shut down the water purification process	4.1 Identify the appropriate shutdown procedure and implement 4.2 Identify and report maintenance requirements according to operating procedures 4.3 Maintain workplace records according to workplace procedures

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"> <li>Interpret workplace and standard operating procedures relevant to job role</li> </ul>

Skill	Description
	<ul style="list-style-type: none"> <li>Interpret production requirements</li> </ul>
Writing	<ul style="list-style-type: none"> <li>Record operating, routine maintenance and shutdown information on paper-based and electronic media</li> </ul>
Numeracy	<ul style="list-style-type: none"> <li>Monitor and interpret production and process control indicators and data</li> <li>Monitor supply and flow of materials to and from the process</li> </ul>
Navigate the world of work	<ul style="list-style-type: none"> <li>Apply workplace procedures to own role and responsibilities</li> <li>Identify skills, knowledge and experience required for performing own role in the workplace</li> <li>Ask questions to clarify understanding or seek further information</li> </ul>
Interact with others	<ul style="list-style-type: none"> <li>Communicate and report operational and safety information to relevant personnel</li> <li>Use modes of communication suitable to purpose to confirm understanding when conducting operational start-up and shutdown procedures</li> </ul>
Get the work done	<ul style="list-style-type: none"> <li>Access and interpret process control panels and system</li> <li>Maintain a clean and hazard-free work area</li> <li>Identify out-of-specification standards and maintain quality specifications</li> <li>Confirm equipment status and condition</li> <li>Interpret process and equipment information to monitor process and respond to abnormal performance and variations</li> </ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPOPR2054 Operate a water purification process	FDFOP2054A Operate a water purification process	Updated to meet Standards for Training Packages	Equivalent unit

## Links

Companion Volumes, including Implementation Guides, are available at VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## Assessment Requirements for FBPOPR2054 Operate a water purification process

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 1.0

### Performance Evidence

An individual demonstrating competency in this unit must satisfy all of the elements and performance criteria of this unit.

There must be evidence that the individual has operated a water purification process on at least one occasion, including:

- accessing workplace information to identify water purification process requirements
- selecting, fitting and using personal protective clothing and/or equipment
- responding appropriately to hazards, including chemical spills
- confirming supply of necessary materials and services
- conducting pre-start checks, including:
  - inspecting equipment condition to identify any signs of wear
  - selecting appropriate settings and/or related parameters
  - cancelling isolation or lock-outs
  - confirming that equipment is clean and correctly configured for water purification process requirements
  - positioning sensors and controls correctly
  - ensuring any scheduled maintenance has been carried out
  - confirming that all safety guards are in place and operational
- starting, operating, monitoring and adjusting water purification process equipment to achieve required outcomes, including monitoring control points and conducting inspections to confirm process remains within specification, including:
  - flow rates
  - pressure
  - operation of dosing equipment
  - alarms
- monitoring supply and flow of materials to and from the water purification process
- taking corrective action in response to out-of-specification results
- maintaining a purification system free of physical, chemical and biological contaminants

- responding to and/or reporting equipment failure within level of responsibility
- locating emergency stop functions on equipment
- following isolation and lock-out/tag-out procedures to take water purification process and related equipment off-line in preparation for cleaning/back-flushing and/or maintenance within level of responsibility
- carrying out cleaning, sanitising, regenerating and back-flushing
- completing workplace records
- maintaining work area to meet housekeeping standards
- following relevant work health and safety procedures, including responding appropriately to hazards, including chemical spills.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- purpose and basic principles of the water purification process, including methods used to purify water appropriate to workplace requirements
- basic operating principles of equipment, including:
  - main equipment components
  - status and purpose of guards
  - equipment operating capacities and applications
  - purpose and location of sensors and related feedback instrumentation
- services required and action to take if services are not available
- the flow of the water purification process and the effect of outputs on downstream processes
- quality characteristics to be achieved by the water purification process
- quality requirements of inputs to the purification process and the effect of variation on process performance
- operating requirements and parameters, and corrective action required where operation is outside specified operating parameters
- typical equipment faults and related causes, including:
  - following troubleshooting and problem-solving guidelines
  - recognising signs and symptoms of faulty equipment and early warning signs of potential problems
- basic operating principles of process control as appropriate, including the relationship between control panels and systems and the physical equipment
- methods used to monitor the water purification process, including inspecting, measuring and testing by the process
- inspection or test points (control points) in the water purification process and the related procedures and recording requirements
- Good Manufacturing Practice (GMP)/food safety requirements (as appropriate) associated with the purification process and related control measures
- common causes of variation and corrective action required



- work health and safety hazards and controls
- requirements of different shutdowns as appropriate to the water purification process and workplace production requirements, including emergency and routine shutdowns
- isolation, lock-out and tag-out procedures and responsibilities
- cleaning and sanitation procedures
- procedures and responsibility for reporting production and performance information
- environmental issues and controls relevant to the water purification process.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - a workplace or an environment that accurately represents workplace conditions
- resources, equipment and materials:
  - personal protective clothing and equipment
  - washing and drying equipment and services, including water and sanitiser
  - raw materials to be processed
  - sampling schedules and test procedures and equipment
  - cleaning procedures, materials and equipment
- specifications:
  - work procedures, including advice on safe work practices, food safety, quality and environmental requirements
  - information on equipment capacity and operating parameters
  - production schedule/batch instructions
  - specifications and inspection or control points
  - documentation and recording requirements and procedures.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volumes, including Implementation Guides, are available at VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## FBPOPR2055 Freeze dough

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 1.0

### Application

This unit of competency describes the skills and knowledge required to freeze, store and thaw dough.

This unit applies to individuals who work in a food processing environment. It typically applies to the production worker responsible for applying basic operating principles to freeze dough.

All work must be carried out to comply with workplace procedures, in accordance with State/Territory work health and safety, and food safety regulations, legislation and standards that apply to the workplace.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

### Pre-requisite Unit

Nil

### Unit Sector

Operational (OPR)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare to freeze dough	1.1 Identify freezing requirements of dough 1.2 Set freezers to meet parameters for snap freezing and for storage 1.3 Ensure frozen dough meets freezing specifications

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
2. Store frozen dough	2.1 Confirm storage conditions retain quality characteristics of frozen dough 2.2 Monitor freezing processes to ensure that product meets food safety and quality requirements
3. Thaw frozen dough	3.1 Ensure thawed dough meets food safety and quality requirements 3.2 Identify, rectify and/or remove unacceptable dough 3.3 Dispose of waste according to workplace procedure 3.4 Conduct work in accordance with workplace environmental guidelines 3.5 Maintain workplace housekeeping standards for freezing, storing and thawing dough

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Numeracy	<ul style="list-style-type: none"> <li>Read a thermometer or temperature gauge</li> <li>Estimate and calculate storage and thawing times</li> </ul>
Reading	<ul style="list-style-type: none"> <li>Identify requirements from basic instructions and procedures</li> </ul>
Writing	<ul style="list-style-type: none"> <li>Maintain basic records and observations on forms</li> </ul>
Navigate the world of work	<ul style="list-style-type: none"> <li>Apply workplace procedures relevant to own responsibilities</li> <li>Understand main tasks, responsibilities and boundaries of own role, including use of personal protective clothing and equipment, housekeeping standards and procedures, quality requirements and operating procedures</li> <li>Take steps to develop skills and knowledge of products, rotation and storage patterns</li> </ul>
Interact with others	<ul style="list-style-type: none"> <li>Communicate and report operational and safety information to relevant persons</li> <li>Select and use appropriate terminology when communicating with personnel</li> </ul>

Skill	Description
	<ul style="list-style-type: none"><li>Participate in conversations relevant to role by responding and explaining as required</li></ul>
Get the work done	<ul style="list-style-type: none"><li>Make routine decisions relating to freshness and handling of product</li><li>Recognise and respond to non-conforming product</li></ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPOPR2055 Freeze dough	FDFOP2055A Freeze dough	Updated to meet Standards for Training Packages	Equivalent unit

## Links

Companion Volumes, including Implementation Guides, are available at VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## Assessment Requirements for FBOPR2055 Freeze dough

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 1.0

### Performance Evidence

An individual demonstrating competency in this unit must satisfy all of the elements and performance criteria of this unit.

There must be evidence that the individual has prepared to freeze, stored and thawed dough on at least one occasion, including:

- accessing freezing requirements for dough type
- setting equipment to meet the parameters for snap freezing and for storing dough
- transferring dough to snap freezer (transfer method must ensure minimal damage to dough structure, which is particularly critical where frozen dough is already proofed)
- monitoring equipment to confirm that freezing parameters are met
- packaging snap frozen dough for freezer storage as required to prevent moisture loss
- transferring snap frozen, packaged dough to frozen storage
- thawing dough as required for use
- maintaining workplace records as required
- maintaining work area to meet housekeeping standards
- following relevant work health and safety procedures.

### Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- basic principles of freezing dough, including what occurs to dough during snap freezing and storage stages
- freezing equipment used, freezing capacity and the effect of freezing method on product
- different handling requirements of made-up and proofed dough to preserve the dough structure
- purpose and characteristics of packaging liners used to pack frozen dough
- procedures for maintaining temperature parameters of freezing equipment, including procedures to be followed when loading and removing dough to preserve temperature conditions

- storage patterns to make efficient use of space, allow for product rotation and minimise temperature fluctuations
- food safety issues that can result from temperature abuse
- the significance of timeliness when both freezing and thawing dough
- optimal storage times for frozen dough
- the significance of variables, including dough type and size, on freezing and thawing processes
- procedures for efficiently thawing frozen product, and the consequences of slow thawing
- the effect of freezing/thawing on the quality of the final product
- inspections/control points used to confirm that product meets quality requirements and related monitoring requirements
- causes of variation and corrective action required when freezing, storing and thawing dough
- work health and safety hazards and controls related to freezing, storing and thawing dough
- waste handling and cleaning requirements and procedures for freezing, storing and thawing dough.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - a workplace or an environment that accurately represents workplace conditions
- resources, equipment and materials:
  - personal protective clothing, equipment, and material safety data sheets (MSDS)
  - freezing equipment
  - packaging materials and liners
  - dough
  - cleaning procedures, materials and equipment
- specifications:
  - work procedures, including advice on relevant freezing, storing and thawing requirements, safe work practices, food safety, quality and environmental requirements
  - product specifications and related inspection/control points.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volumes, including Implementation Guides, are available at VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## FBPOPR2056 Operate a freezing process

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 1.0

### Application

This unit of competency describes the skills and knowledge required to set up, operate, adjust and shut down a freezing process.

This unit applies to individuals who work under general supervision and exercise limited autonomy in a food processing environment. It typically applies to the production worker responsible for applying basic operating principles to the operation and monitoring of a freezing process and associated equipment.

All work must be carried out to comply with workplace procedures, in accordance with State/Territory work health and safety, and food safety regulations, legislation and standards that apply to the workplace.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

### Pre-requisite Unit

Nil

### Unit Sector

Operational (OPR)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare for work in processing area	1.1 Confirm materials are available to meet operating requirements 1.2 Identify and confirm cleaning and maintenance requirements and status according to work health and safety and food safety

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	requirements 1.3 Wear appropriate personal protective clothing and ensure correct fit
2. Prepare the freezing process for operation	2.1 Fit machine components and related attachments and adjust to meet operating requirements 2.2 Enter processing and operating parameters to meet safety and production requirements 2.3 Check equipment performance and adjust according to production requirements 2.4 Carry out pre-start checks according to work health and safety and operating procedures
3. Operate and monitor the freezing process	3.1 Start, operate and monitor the process for variation in operating conditions 3.2 Monitor the process to confirm that specifications are met 3.3 Identify, rectify and report out-of-specification equipment, product or process outcomes according to workplace requirements 3.4 Follow and apply workplace housekeeping and environmental procedures
4. Shut down the freezing process	4.1 Identify the appropriate shutdown procedure 4.2 Shut down the process according to work health and safety and operating procedures 4.3 Identify and report maintenance requirements according to workplace procedures 4.4 Maintain workplace records according to workplace procedures

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
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Skill	Description
Reading	<ul style="list-style-type: none"> <li>Interpret workplace and standard operating procedures relevant to job role</li> <li>Interpret production requirements</li> </ul>
Writing	<ul style="list-style-type: none"> <li>Record operating, routine maintenance and shutdown information on paper-based and electronic media</li> </ul>
Numeracy	<ul style="list-style-type: none"> <li>Monitor and interpret production and process control indicators and data</li> <li>Monitor supply and flow of materials to and from the process</li> </ul>
Navigate the world of work	<ul style="list-style-type: none"> <li>Apply workplace procedures to own role and responsibilities</li> <li>Identify skills, knowledge and experience required for performing own role in the workplace</li> <li>Ask questions to clarify understanding or seek further information</li> </ul>
Interact with others	<ul style="list-style-type: none"> <li>Communicate and report operational and safety information to relevant personnel</li> <li>Use modes of communication suitable to purpose to confirm understanding when conducting operational start-up and shutdown procedures</li> </ul>
Get the work done	<ul style="list-style-type: none"> <li>Access and interpret process control panels and system</li> <li>Maintain a clean and hazard-free work area</li> <li>Identify out-of-specification standards and maintain quality specifications</li> <li>Confirm equipment status and condition</li> <li>Interpret process and equipment information to monitor process and respond to abnormal performance and variations</li> </ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPOPR2056 Operate a freezing process	FDFOP2056A Operate a freezing process	Updated to meet Standards for Training Packages	Equivalent unit

## Links

Companion Volumes, including Implementation Guides, are available at VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>



# Assessment Requirements for FBOPR2056 Operate a freezing process

## Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 1.0

## Performance Evidence

An individual demonstrating competency in this unit must satisfy all of the elements and performance criteria of this unit.

There must be evidence that the individual has operated a freezing process on at least one occasion, including:

- accessing workplace information to identify processing requirements
- selecting, fitting and using personal protective clothing and/or equipment
- confirming supply of necessary materials and services
- preparing materials
- conducting pre-start checks, including:
  - inspecting equipment condition to identify any signs of wear
  - selecting appropriate settings and/or related parameters
  - cancelling isolation or lock-outs
  - confirming that equipment is clean and correctly configured for processing requirements
  - positioning sensors and controls correctly
  - ensuring any scheduled maintenance has been carried out
  - confirming that all safety guards are in place and operational
- starting, operating, monitoring and adjusting the freezing process and equipment to achieve required outcomes, including monitoring control points and conducting inspections to confirm process remains within specification, including:
  - tunnel and product temperatures
  - throughput
  - removal of frozen waste product from equipment
  - visually inspecting product
- monitoring supply and flow of materials to and from the process
- taking corrective action in response to out-of-specification results
- correctly following procedures to defrost tunnels

- responding to and/or reporting equipment failure within level of responsibility
- locating emergency stop functions on equipment
- following isolation and lock-out/tag-out procedures to take process and related equipment off-line in preparation for cleaning and/or maintenance within level of responsibility
- completing workplace records
- maintaining work area to meet housekeeping standards
- using process control systems according to workplace procedures
- cleaning and sanitising equipment according to workplace procedures
- following relevant work health and safety procedures.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- purpose and basic principles of freezing, including the changes that occur to product during freezing
- basic operating principles of equipment used in the operation of a freezing process, including:
  - main equipment components
  - status and purpose of guards
  - basic principles and operation of refrigeration system
  - equipment operating capacities and applications
  - purpose and location of sensors and related feedback instrumentation
- the flow of the freezing process and the effect of product output on downstream processes
- quality characteristics to be achieved by the freezing process
- effect of raw material characteristics on the freezing process
- operating requirements and parameters of the freezing process and corrective action required where operation is outside specified operating parameters
- typical equipment faults and related causes, including signs and symptoms of faulty equipment and early warning signs of potential problems
- contamination and food safety risks associated with the freezing process and related control measures
- common causes of variation in the operation of the freezing process and corrective action required
- work health and safety hazards and controls, including the limitations of protective clothing and equipment relevant to the work process
- requirements of different shutdowns as appropriate to the process and workplace production requirements, including emergency and routine shutdowns, and procedures to follow in the event of a power outage
- isolation, lock-out and tag-out procedures and responsibilities required for the operation of the freezing process
- procedures and responsibility for reporting production and performance information relevant to the freezing process

- environmental issues and controls relevant to the freezing process, including waste collection and handling procedures
- basic operating principles of process control, including the relationship between control panels and systems and the physical equipment
- cleaning and sanitation procedures required for the freezing process.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - a workplace or an environment that accurately represents workplace conditions
- resources, equipment and materials:
  - personal protective clothing and equipment
  - freezing process and related equipment and services
  - materials to be frozen
  - sampling schedules and test procedures and equipment
  - cleaning procedures, materials and equipment
- specifications:
  - work procedures, including advice on safe work practices, food safety, quality and environmental requirements
  - production schedule and batch instructions
  - specifications, control points and processing parameters
  - information on equipment capacity and operating parameters
  - documentation and recording requirements and procedures.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volumes, including Implementation Guides, are available at VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## FBPOPR2057 Operate a membrane process

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 1.0

### Application

This unit of competency describes the skills and knowledge required to set up, operate, adjust and shut down a membrane process.

This unit applies to individuals who work under general supervision and exercise limited autonomy in a food processing environment. It typically applies to the production worker responsible for applying basic operating principles to the operation and monitoring of a membrane process and associated equipment.

All work must be carried out to comply with workplace procedures, in accordance with State/Territory work health and safety, and food safety regulations, legislation and standards that apply to the workplace.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

### Pre-requisite Unit

Nil

### Unit Sector

Operational (OPR)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare for work in processing area	1.1 Confirm materials are available to meet operating requirements 1.2 Identify and confirm cleaning and maintenance requirements and

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	status according to work health and safety and food safety requirements 1.3 Wear appropriate personal protective clothing and ensure correct fit
2. Prepare the membrane equipment and process for operation	2.1 Fit machine components and related attachments and adjust to meet operating requirements 2.2 Enter processing and operating parameters to meet safety and production requirements 2.3 Check equipment performance and adjust according to production requirements 2.4 Carry out pre-start checks according to work health and safety and operating procedures
3. Operate and monitor the membrane process	3.1 Start, operate and monitor the process according to work health and safety and operating procedures 3.2 Monitor the process to confirm that specifications are met 3.3 Identify, rectify and report out-of-specification equipment, product or process outcomes according to workplace requirements 3.4 Follow and apply workplace housekeeping and environmental procedures
4. Shut down the membrane process	4.1 Identify the appropriate shutdown procedure 4.2 Shut down the process according to work health and safety and operating procedures 4.3 Identify and report maintenance requirements according to workplace procedures 4.4 Maintain workplace records according to workplace procedures

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
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Skill	Description
Reading	<ul style="list-style-type: none"> <li>Interpret workplace and standard operating procedures relevant to job role</li> <li>Interpret production requirements</li> </ul>
Writing	<ul style="list-style-type: none"> <li>Record operating, routine maintenance and shutdown information on paper-based and electronic media</li> </ul>
Numeracy	<ul style="list-style-type: none"> <li>Monitor and interpret production and process control indicators and data</li> <li>Monitor supply and flow of materials to and from the process</li> </ul>
Navigate the world of work	<ul style="list-style-type: none"> <li>Apply workplace procedures to own role and responsibilities</li> <li>Identify skills, knowledge and experience required for performing own role in the workplace</li> <li>Ask questions to clarify understanding or seek further information</li> </ul>
Interact with others	<ul style="list-style-type: none"> <li>Communicate and report operational and safety information to relevant personnel</li> <li>Use modes of communication suitable to purpose to confirm understanding when conducting operational start-up and shutdown procedures</li> </ul>
Get the work done	<ul style="list-style-type: none"> <li>Access and interpret process control panels and system</li> <li>Maintain a clean and hazard-free work area</li> <li>Identify out-of-specification standards and maintain quality specifications</li> <li>Confirm equipment status and condition</li> <li>Interpret process and equipment information to monitor process and respond to abnormal performance and variations</li> </ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPOPR2057 Operate a membrane process	FDFOP2057A Operate a membrane process	Updated to meet Standards for Training Packages	Equivalent unit



## Links

Companion Volumes, including Implementation Guides, are available at VETNet -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# Assessment Requirements for FBPOPR2057 Operate a membrane process

## Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 1.0

## Performance Evidence

An individual demonstrating competency in this unit must satisfy all of the elements and performance criteria of this unit.

There must be evidence that the individual has operated a membrane process on at least one occasion, including:

- accessing workplace information to identify membrane processing requirements
- selecting, fitting and using personal protective clothing and/or equipment
- confirming supply of necessary materials and services
- conducting pre-start check, including:
  - inspecting equipment/membrane condition to identify any signs of wear
  - selecting appropriate settings and/or related parameters
  - cancelling isolation or lock-outs
  - confirming that equipment, including pumps, valves and pipework, are clean and correctly configured for membrane processing requirements
  - sensors and controls are correctly positioned
  - any scheduled maintenance has been carried out
  - all safety guards are in place and operational
- starting, operating, monitoring and adjusting membrane processing equipment to achieve required outcomes, including monitoring control points and conducting inspections to confirm process remains within specification, including monitoring:
  - temperatures
  - flow rates
  - total solids
  - pressure/vacuum
- monitoring supply and flow of materials to and from the membrane process
- taking corrective action in response to out-of-specification results
- responding to and/or reporting equipment failure within level of responsibility
- locating emergency stop functions on equipment

- following isolation and lock-out/tag-out procedures to take membrane processing and related equipment off-line in preparation for cleaning and/or maintenance within level of responsibility
- following procedures to clean membranes
- completing workplace records
- maintaining work area to meet housekeeping standards
- using process control systems according to workplace procedures
- following relevant work health and safety procedures.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- purpose and basic principles of membrane processing, including:
  - components of milk
  - particle size of each component
  - effect on these components of membrane processing
  - methods used to achieve this outcome
- basic operating principles of membrane processing equipment, including:
  - main equipment components
  - status and purpose of guards
  - equipment operating capacities and applications
  - purpose and location of sensors and related feedback instrumentation
  - material composition of membranes used in the workplace, and related operating, cleaning and storage requirements
- the flow of the membrane process, including the different processing streams and the effect of the membrane process outputs on downstream processes
- quality characteristics required of the membrane processing outputs
- the effect of variation in raw material characteristics on membrane processing performance
- operating requirements and parameters and corrective action required where operation is outside specified operating parameters, including the effect of variation in processing parameters, including temperature, pressure, total solids and flow rates on membrane process performance
- typical equipment faults and related causes, including signs and symptoms of faulty equipment and early warning signs of potential problems
- techniques used to monitor membrane processing, including inspecting, measuring and testing by the process
- inspection or test points (control points) in the process and the related procedures and recording requirements
- contamination and food safety risks associated with the process and related control measures

- common causes of variation and corrective action required when operating a membrane process
- work health and safety hazards and controls, including the limitations of protective clothing and equipment relevant to the work process
- requirements of different shutdowns as appropriate to membrane processing and workplace production requirements, including emergency and routine shutdowns, and procedures to follow in the event of a power outage and shutdown
- cleaning and sanitation requirements required for operating a membrane process
- isolation, lock-out and tag-out procedures and responsibilities
- procedures and responsibility for reporting membrane processing production and performance information
- environmental issues and controls relevant to membrane processing, including waste collection and handling procedures related to the process
- basic operating principles of process control, including the relationship between control panels and systems and the physical equipment.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - a workplace or an environment that accurately represents workplace conditions
- resources, equipment and materials:
  - personal protective clothing and equipment
  - membrane processing and related equipment and services
  - materials required for membrane processing
  - sampling schedules and test procedures and equipment
  - cleaning and sanitation procedures, materials and equipment
- specifications:
  - work procedures, including advice on safe work practices, food safety, quality and environmental requirements, stock flow systems, production schedules, batch/recipe instructions
  - information on equipment capacity and operating parameters
  - production schedule and batch instructions
  - specifications, control points and processing parameters
  - documentation and recording requirements and procedures.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volumes, including Implementation Guides, are available at VETNet -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## FBPOPR2058 Operate a holding and storage process

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 1.0

### Application

This unit of competency describes the skills and knowledge required to set up, operate, adjust and shut down a holding and storage process.

This unit applies to individuals who work under general supervision and exercise limited autonomy in a food processing environment. It typically applies to the production worker responsible for applying basic operating principles to the operation and monitoring of a holding and storage process and associated equipment.

All work must be carried out to comply with workplace procedures, in accordance with State/Territory work health and safety, and food safety regulations, legislation and standards that apply to the workplace.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

### Pre-requisite Unit

Nil

### Unit Sector

Operational (OPR)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare for work in processing area	1.1 Confirm materials are available to meet operating requirements 1.2 Identify and confirm cleaning and maintenance requirements and status according to work health and safety and food safety

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	requirements 1.3 Wear appropriate personal protective clothing and ensure correct fit
2. Prepare the holding and storage equipment and process for operation	2.1 Fit machine components and related attachments, and adjust to meet operating requirements 2.2 Enter processing and operating parameters to meet safety and production requirements 2.3 Check equipment performance and adjust according to production requirements 2.4 Carry out pre-start checks according to work health and safety and operating procedures
3. Operate and monitor the holding and storage process	3.1 Start, operate and monitor the process for variation in operating conditions 3.2 Monitor the process to confirm that specifications are met 3.3 Identify, rectify and report out-of-specification equipment, product or process outcomes according to workplace requirements 3.4 Follow and apply workplace housekeeping and environmental procedures
4. Shut down the holding and storage process	4.1 Identify the appropriate shutdown procedure 4.2 Shut down the process according to work health and safety and operating procedures 4.3 Identify and report maintenance requirements according to workplace requirements 4.4 Maintain workplace records according to workplace requirements

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
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Skill	Description
Reading	<ul style="list-style-type: none"> <li>Interpret workplace and standard operating procedures relevant to job role</li> <li>Interpret production requirements</li> </ul>
Writing	<ul style="list-style-type: none"> <li>Record operating, routine maintenance and shutdown information on paper-based and electronic media</li> </ul>
Numeracy	<ul style="list-style-type: none"> <li>Monitor and interpret production and process control indicators and data</li> <li>Monitor supply and flow of materials to and from the process</li> </ul>
Navigate the world of work	<ul style="list-style-type: none"> <li>Apply workplace procedures to own role and responsibilities</li> <li>Identify skills, knowledge and experience required for performing own role in the workplace</li> <li>Ask questions to clarify understanding or seek further information</li> </ul>
Interact with others	<ul style="list-style-type: none"> <li>Communicate and report operational and safety information to relevant personnel</li> <li>Use modes of communication suitable to purpose to confirm understanding when conducting operational start-up and shutdown procedures</li> </ul>
Get the work done	<ul style="list-style-type: none"> <li>Access and interpret process control panels and system</li> <li>Maintain a clean and hazard-free work area</li> <li>Identify out-of-specification standards and maintain quality specifications</li> <li>Confirm equipment status and condition</li> <li>Interpret process and equipment information to monitor process and respond to abnormal performance and variations</li> </ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPOPR2058 Operate a holding and storage process	FDFOP2058A Operate a holding and storage process	Updated to meet Standards for Training Packages	Equivalent unit



## Links

Companion Volumes, including Implementation Guides, are available at VETNet -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## Assessment Requirements for FBPOPR2058 Operate a holding and storage process

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 1.0

### Performance Evidence

An individual demonstrating competency in this unit must satisfy all of the elements and performance criteria of this unit.

There must be evidence that the individual has operated a holding and storage process on at least one occasion, including:

- accessing workplace information to identify requirements for the holding and storage process
- selecting, fitting and using personal protective clothing and/or equipment
- confirming supply of necessary materials and services for the holding and storage process
- conducting pre-start checks, including:
  - inspecting equipment condition to identify any signs of wear
  - selecting appropriate settings and/or related parameters
  - cancelling isolation or lock-outs
  - confirming that equipment is clean and correctly configured for processing requirements
  - positioning sensors and controls correctly
  - ensuring any scheduled maintenance has been carried out
  - confirming that all safety guards are in place and operational
- starting, operating, monitoring and adjusting holding and storage process equipment to achieve required outcomes, including monitoring control points and conducting inspections to confirm process remains within specification, including:
  - time/temperature
  - flow rates
  - agitation speed
  - equipment condition and performance
- monitoring supply and flow of materials to and from the holding and storage process
- taking corrective action in response to out-of-specification results
- responding to and/or reporting equipment failure within level of responsibility

- locating emergency stop functions on equipment
- following isolation and lock-out/tag-out procedures to take holding and storage process and related equipment off-line in preparation for cleaning and/or maintenance within level of responsibility
- completing workplace records
- maintaining work area to meet housekeeping standards
- using process control systems according to workplace procedures
- cleaning equipment according to workplace procedures
- following relevant work health and safety guidelines.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- purpose and basic principles of the holding and storage process, including the importance of stock rotation
- basic operating principles of equipment for the holding and storage process, including:
  - main equipment components
  - status and purpose of guards
  - equipment operating capacities and applications
  - purpose and location of sensors and related feedback instrumentation
- the flow of the holding and storage process and the effect of product output on downstream processes
- contamination and food safety risks associated with the holding and storage process and related control measures
- quality characteristics to be achieved by the holding and storage process, including organoleptic characteristics of the product
- effect of raw material characteristics on the holding and storage process
- operating requirements and parameters, and corrective action required where operation is outside specified operating parameters
- typical equipment faults and related causes related to the storage and holding process, including signs and symptoms of faulty equipment and early warning signs of potential problems
- techniques used to monitor the holding and storage process, including inspecting, measuring and testing by the process
- common causes of variation for the holding and storage process and corrective action required
- work health and safety hazards and controls, including the limitations of protective clothing and equipment relevant to the work process
- requirements of different shutdowns as appropriate to the holding and storage process and workplace production requirements, including emergency and routine shutdowns, and procedures to follow in the event of a power outage
- isolation, lock-out and tag-out procedures and responsibilities for operating a holding and storage process

- procedures and responsibility for reporting production and performance information
- environmental issues and controls relevant to the process, including waste collection and handling procedures
- basic operating principles of process control, including the relationship between control panels and systems and the physical equipment
- cleaning and sanitation procedures required for the holding and storage process.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - a workplace or an environment that accurately represents workplace conditions
- resources, equipment and materials:
  - personal protective clothing and equipment
  - holding and storage process and related equipment and services
  - materials required for a holding/storage process
  - sampling schedules and test procedures and equipment
  - routine preventative maintenance schedule as required
  - cleaning procedures, materials and equipment
- specifications:
  - work procedures, including advice on safe work practices, food safety, quality and environmental requirements
  - stock flow systems, production schedules and batch/recipe instructions
  - specifications, control points and processing parameters
  - information on equipment capacity and operating parameters
  - production schedule and batch instructions
  - documentation and recording requirements and procedures.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volumes, including Implementation Guides, are available at VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## FBPOPR2059 Operate a continuous freezing process

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 1.0

### Application

This unit of competency describes the skills and knowledge required to set up, operate, adjust and shut down a continuous freezing process.

This unit applies to individuals who work under general supervision and exercise limited autonomy in a food processing environment. It typically applies to the production worker responsible for applying basic operating principles to the operation and monitoring of a continuous freezing process and associated equipment.

All work must be carried out to comply with workplace procedures, in accordance with State/Territory work health and safety, and food safety regulations, legislation and standards that apply to the workplace.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

### Pre-requisite Unit

Nil

### Unit Sector

Operational (OPR)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare for work in processing area	1.1 Confirm materials are available to meet operating requirements 1.2 Identify and confirm cleaning and maintenance requirements and status according to work health and safety and food safety

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	requirements 1.3 Wear appropriate personal protective clothing and ensure correct fit
2. Prepare the freezing equipment and process for operation	2.1 Fit machine components and related attachments, and adjust to meet operating requirements 2.2 Enter processing and operating parameters to meet safety and production requirements 2.3 Check equipment performance and adjust according to production requirements 2.4 Carry out pre-start checks according to work health and safety and operating procedures
3. Monitor the freezing process operation	3.1 Start, operate and monitor the process for variation in operating conditions 3.2 Monitor the process to confirm that specifications are met 3.3 Identify, rectify and report out-of-specification equipment, product or process outcomes according to workplace requirements 3.4 Follow and apply workplace housekeeping and environmental procedures
4. Shut down the freezing process	4.1 Identify the appropriate shutdown procedure 4.2 Shut down the process according to work health and safety and operating procedures 4.3 Identify and report maintenance requirements according to workplace procedures 4.4 Maintain workplace records according to workplace procedures

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
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Skill	Description
Reading	<ul style="list-style-type: none"> <li>Interpret workplace and standard operating procedures relevant to job role</li> <li>Interpret production requirements</li> </ul>
Writing	<ul style="list-style-type: none"> <li>Record operating, routine maintenance and shutdown information on paper-based and electronic media</li> </ul>
Numeracy	<ul style="list-style-type: none"> <li>Monitor and interpret production and process control indicators and data</li> <li>Monitor supply and flow of materials to and from the process</li> </ul>
Navigate the world of work	<ul style="list-style-type: none"> <li>Apply workplace procedures to own role and responsibilities</li> <li>Identify skills, knowledge and experience required for performing own role in the workplace</li> <li>Ask questions to clarify understanding or seek further information</li> </ul>
Interact with others	<ul style="list-style-type: none"> <li>Communicate and report operational and safety information to relevant personnel</li> <li>Use modes of communication suitable to purpose to confirm understanding when conducting operational start-up and shutdown procedures</li> </ul>
Get the work done	<ul style="list-style-type: none"> <li>Access and interpret process control panels and system</li> <li>Maintain a clean and hazard-free work area</li> <li>Identify out-of-specification standards and maintain quality specifications</li> <li>Confirm equipment status and condition</li> <li>Interpret process and equipment information to monitor process and respond to abnormal performance and variations</li> </ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPOPR2059 Operate a continuous freezing process	FDFOP2059A Operate a continuous freezing process	Updated to meet Standards for Training Packages	Equivalent unit

## Links

Companion Volumes, including Implementation Guides, are available at VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>



## Assessment Requirements for FBPOPR2059 Operate a continuous freezing process

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 1.0

### Performance Evidence

An individual demonstrating competency in this unit must satisfy all of the elements and performance criteria of this unit.

There must be evidence that the individual has operated a continuous freezing process on at least one occasion, including:

- accessing workplace information to identify processing requirements
- selecting, fitting and using personal protective clothing and/or equipment
- confirming supply of necessary materials and services
- conducting pre-start checks, including:
  - inspecting equipment condition to identify any signs of wear
  - selecting appropriate settings and/or related parameters
  - cancelling isolation or lock-outs
  - confirming that equipment is clean and correctly configured for processing requirements
  - positioning sensors and controls correctly
  - ensuring any scheduled maintenance has been carried out
  - confirming that all safety guards are in place and operational
- starting, operating, monitoring and adjusting process equipment to achieve required outcomes, including monitoring control points and conducting inspections to confirm process remains within specification, including:
  - flow rates
  - churn speed
  - time/temperature
  - ingredient addition systems
  - pressures
  - equipment condition and performance
- monitoring supply and flow of materials to and from the process
- taking corrective action in response to out-of-specification results

- responding to and/or reporting equipment failure within level of responsibility
- locating emergency stop functions on equipment
- follow isolation and lock-out/tag-out procedures to take process and related equipment off-line in preparation for cleaning and/or maintenance within level of responsibility
- completing workplace records
- maintaining work area to meet housekeeping standards
- using process control systems according to workplace procedures
- cleaning and sanitising equipment according to workplace procedures
- following relevant work health and safety procedures.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- purpose and basic principles of the continuous freezing process, including the stages that occur during the churning and freezing process and the required physical and microstructure of the product
- basic operating principles of equipment required to operate a continuous freezing process, including:
  - main equipment components
  - status and purpose of guards
  - equipment operating capacities and applications
  - purpose and location of sensors and related feedback instrumentation
- services required to operate a continuous freezing process and action to take if services are not available
- the flow of the freezing process and the effect of outputs on downstream processes
- additives and ingredients used in the continuous freezing process and their role in the product
- quality characteristics to be achieved by the freezing process
- quality requirements of materials/ingredients and effect of variation on process performance
- operating requirements and parameters and corrective action required where operation of the continuous freezing process is outside specified operating parameters
- typical equipment faults and related causes, including signs and symptoms of faulty equipment and early warning signs of potential problems
- methods used to monitor the production process, including inspecting, measuring and testing by the process
- inspection or test points (control points) in the continuous freezing process operation and the related procedures and recording requirements
- contamination/food safety risks associated with the continuous freezing process and related control measures
- common causes of variation in the operation of a continuous freezing process and corrective action required

- work health and safety hazards and controls relevant to the operation of a continuous freezing process, including the limitations of protective clothing and equipment relevant to the work process
- requirements of different shutdowns as appropriate to the continuous freezing process and workplace production requirements, including emergency and routine shutdowns and procedures to follow in the event of a power outage
- isolation, lock out and tag out procedures and responsibilities required for the operation of a continuous freezing process
- procedures and responsibility for reporting production and performance information of the continuous freezing process
- environmental issues and controls relevant to the continuous freezing process, including waste/rework collection and handling procedures related to the process
- basic operating principles of continuous freezing process control, including the relationship between control panels and systems and the physical equipment
- cleaning procedures required for the continuous freezing process.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - a workplace or an environment that accurately represents workplace conditions
- resources, equipment and materials:
  - personal protective clothing and equipment
  - freezing process and related equipment and services
  - materials/ingredients to be processed
  - sampling schedules and test procedures and equipment
  - cleaning procedures, materials and equipment
- specifications:
  - work procedures, including advice on safe work practices, food safety, quality and environmental requirements
  - information on equipment capacity and operating parameters
  - production schedules and batch instructions
  - specifications, control points and processing parameters
  - documentation and recording requirements and procedures.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volumes, including Implementation Guides, are available at VETNet -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## FBPOPR2060 Operate an automated cutting process

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 1.0

### Application

This unit of competency describes the skills and knowledge required to set up, operate, adjust and shut down an automated cutting process.

This unit applies to individuals who work under general supervision and exercise limited autonomy in a food processing environment. It typically applies to the production worker responsible for applying basic operating principles to the operation and monitoring of an automated cutting process and associated equipment.

All work must be carried out to comply with workplace procedures, in accordance with State/Territory work health and safety, and food safety regulations, legislation and standards that apply to the workplace.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

### Pre-requisite Unit

Nil

### Unit Sector

Operational (OPR)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare for work in processing area	1.1 Confirm carcasses/pieces are available according to production requirements 1.2 Identify and confirm cleaning and maintenance requirements and

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	<p>status according to work health and safety and food safety requirements</p> <p>1.3 Wear appropriate personal protective clothing and ensure correct fit</p>
2. Prepare the automated cutting equipment and process for operation	<p>2.1 Fit machine components and related attachments, and adjust to meet operating requirements</p> <p>2.2 Enter processing and operating parameters to meet safety and production requirements</p> <p>2.3 Check equipment performance and adjust according to production requirements</p> <p>2.4 Carry out pre-start checks according to work health and safety and operating procedures</p>
3. Operate and monitor the automated cutting process	<p>3.1 Inspect carcasses/pieces to confirm that quality requirements are met</p> <p>3.2 Hang carcasses/pieces to meet production pace</p> <p>3.3 Start, operate and monitor the process for variation in operating conditions</p> <p>3.4 Monitor the process to confirm that temperature specifications are met</p> <p>3.5 Identify, rectify and report out-of-specification equipment, product or process outcomes according to workplace requirements</p> <p>3.6 Follow and apply workplace housekeeping and environmental procedures</p>
4. Shut down the automated cutting process	<p>4.1 Identify the appropriate shutdown procedure</p> <p>4.2 Shut down the process according to work health and safety and operating procedures</p> <p>4.3 Identify and report maintenance requirements according to workplace procedures</p> <p>4.4 Maintain workplace records according to workplace procedures</p>

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"> <li>Interpret workplace and standard operating procedures relevant to job role</li> <li>Interpret production requirements</li> </ul>
Writing	<ul style="list-style-type: none"> <li>Record operating, routine maintenance and shutdown information on paper-based and electronic media</li> </ul>
Numeracy	<ul style="list-style-type: none"> <li>Monitor and interpret production and process control indicators and data</li> <li>Monitor supply and flow of materials to and from the process</li> </ul>
Navigate the world of work	<ul style="list-style-type: none"> <li>Apply workplace procedures to own role and responsibilities</li> <li>Identify skills, knowledge and experience required for performing own role in the workplace</li> <li>Ask questions to clarify understanding or seek further information</li> </ul>
Interact with others	<ul style="list-style-type: none"> <li>Communicate and report operational and safety information to relevant personnel</li> <li>Use modes of communication suitable to purpose to confirm understanding when conducting operational start-up and shutdown procedures</li> </ul>
Get the work done	<ul style="list-style-type: none"> <li>Access and interpret process control panels and system</li> <li>Maintain a clean and hazard-free work area</li> <li>Identify out-of-specification standards and maintain quality specifications</li> <li>Confirm equipment status and condition</li> <li>Interpret process and equipment information to monitor process and respond to abnormal performance and variations</li> </ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPOPR2060 Operate an automated cutting process	FDFOP2060A Operate an automated cutting process	Updated to meet Standards for Training Packages	Equivalent unit

## Links

Companion Volumes, including Implementation Guides, are available at VETNet -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>



## Assessment Requirements for FBPOPR2060 Operate an automated cutting process

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 1.0

### Performance Evidence

An individual demonstrating competency in this unit must satisfy all of the elements and performance criteria of this unit.

There must be evidence that the individual has operated an automated cutting process on at least one occasion, including:

- accessing workplace information to identify cutting requirements
- selecting, fitting and using personal protective clothing and/or equipment
- confirming supply of necessary carcasses/pieces and services, including inspecting and removing carcasses/pieces of unacceptable quality
- conducting pre-start checks, including:
  - inspecting equipment condition to identify blade sharpness and other signs of wear
  - selecting appropriate settings and/or related parameters according to bird size/type
  - cancelling isolation or lock-outs
  - confirming that equipment is clean and correctly configured for cutting process requirements
  - positioning sensors and controls correctly
  - ensuring any scheduled maintenance has been carried out
  - confirming that all safety guards are in place, and operational and running
  - trialling cut to confirm accuracy/positioning where required
- starting, operating, monitoring and adjusting automated cutting process equipment to achieve required outcomes, including hanging carcasses/pieces to meet production pace, monitoring control points and conducting inspections to confirm cut accuracy within specification
- monitoring supply and flow of carcasses/pieces to and from the automated cutting process
- taking corrective action in response to out-of-specification results, including adjusting blades/knives within level of responsibility
- responding to and/or reporting equipment failure within level of responsibility
- following procedures to adjust equipment for bird/portion type/size
- locating emergency stop functions on equipment

- following isolation and lock-out/tag-out procedures to take automated cutting process and related equipment off-line in preparation for cleaning and/or maintenance within level of responsibility
- completing workplace records
- maintaining work area to meet housekeeping standards
- using process control systems according to workplace procedures
- cleaning and sanitising equipment according to workplace procedures
- following relevant work health and safety procedures.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- purpose and basic principles of the automated cutting process
- basic operating principles of equipment required to operate an automated cutting process, including:
  - main equipment components
  - status and purpose of guards
  - equipment operating capacities and applications
  - purpose and location of sensors and related feedback instrumentation
- the flow of the automated cutting process and the effect of outputs on downstream processes
- quality characteristics to be achieved by the automated cutting process, including quality specifications and ability to assess cut quality and determine any required adjustments
- operating requirements and parameters, and corrective action required where operation is outside specified operating parameters
- typical equipment faults and related causes, including signs and symptoms of faulty equipment and early warning signs of potential problems
- methods used to monitor the automated cutting process, including inspecting the quality of cuts
- inspection or test points (control points) in the automated cutting process and the related procedures and recording requirements, including recording information (e.g. temperatures and product codes)
- contamination/food safety risks associated with the automated cutting process and related control measures
- common causes of variation and corrective action required when operating an automated cutting process
- work health and safety hazards and controls, including the limitations of protective clothing and equipment relevant to the work process
- requirements of different shutdowns as appropriate to the automated cutting process and workplace production requirements, including emergency and routine shutdowns, and procedures to follow in the event of a power outage
- isolation, lock-out and tag-out procedures and responsibilities for an automated cutting process

- procedures and responsibility for reporting production and performance information
- environmental issues and controls relevant to the automated cutting process, including waste/rework collection and handling procedures related to the process
- basic operating principles of process control, including the relationship between control panels and systems and the physical equipment
- cleaning and sanitation procedures required for the automated cutting process.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - a workplace or an environment that accurately represents workplace conditions
- resources, equipment and materials:
  - personal protective clothing and equipment
  - automated cutting process and related equipment and services
  - carcasses/pieces to be processed
  - cleaning procedures, materials and equipment
- specifications:
  - work procedures, including advice on safe work practices, food safety, quality and environmental requirements
  - information on equipment capacity and operating parameters
  - production schedule/batch instructions
  - specifications, control points and processing parameters
  - documentation and recording requirements and procedures.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volumes, including Implementation Guides, are available at VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## FBPOPR2061 Operate a wort production process

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 1.0

### Application

This unit of competency describes the skills and knowledge required to set up, operate, adjust and shut down a wort production process.

This unit applies to individuals who work under general supervision and exercise limited autonomy in a food processing environment. It typically applies to the production worker responsible for applying basic operating principles to the operation and monitoring of a wort production process and associated equipment.

All work must be carried out to comply with workplace procedures, in accordance with State/Territory work health and safety, and food safety regulations, legislation and standards that apply to the workplace.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

### Pre-requisite Unit

FBPOPR2011 Identify key stages and beer production equipment in a brewery

### Unit Sector

Operational (OPR)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare for work in processing area	1.1 Check production requirements against job specifications 1.2 Confirm availability of required materials according to production

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	requirements 1.3 Confirm availability of services according to production requirements 1.4 Wear appropriate personal protective clothing and ensure correct fit
2. Prepare the wort production process for operation	2.1 Conduct pre-start checks of equipment according to operating procedures 2.2 Identify work health and safety hazards and controls according to operating procedures 2.3 Set the wort production process to meet production requirements
3. Operate and monitor the wort production system	3.1 Start up the wort production system according to operating procedures 3.2 Monitor control points to confirm performance is maintained within specification 3.3 Undertake required tests according to operating procedures 3.4 Ensure system and sub-system outputs meet specification 3.5 Monitor equipment to confirm operating condition 3.6 Identify, rectify and/or report out-of-specification wort, process and equipment performance 3.7 Record production and other workplace information in the appropriate format
4. Shut down the wort production system	4.1 Identify the appropriate shut procedure and implement 4.2 Clean and maintain equipment according to workplace procedures 4.3 Collect, treat and dispose of or recycle waste generated by both the process and cleaning procedures according to environmental procedures

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"> <li>Interpret workplace and standard operating procedures relevant to job role</li> <li>Interpret production requirements</li> </ul>
Writing	<ul style="list-style-type: none"> <li>Record operating, routine maintenance and shutdown information on paper-based and electronic media</li> </ul>
Numeracy	<ul style="list-style-type: none"> <li>Monitor and interpret production and process control indicators and data</li> <li>Monitor supply and flow of materials to and from the process</li> </ul>
Navigate the world of work	<ul style="list-style-type: none"> <li>Apply workplace procedures to own role and responsibilities</li> <li>Identify skills, knowledge and experience required for performing own role in the workplace</li> <li>Ask questions to clarify understanding or seek further information</li> </ul>
Interact with others	<ul style="list-style-type: none"> <li>Communicate and report operational and safety information to relevant personnel</li> <li>Use modes of communication suitable to purpose to confirm understanding when conducting operational start-up and shutdown procedures</li> </ul>
Get the work done	<ul style="list-style-type: none"> <li>Access and interpret process control panels and system</li> <li>Maintain a clean and hazard-free work area</li> <li>Identify out-of-specification standards and maintain quality specifications</li> <li>Confirm equipment status and condition</li> <li>Interpret process and equipment information to monitor process and respond to abnormal performance and variations</li> </ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPOPR2061 Operate a wort production process	FDFOP2066A Operate a wort production process	Updated to meet Standards for Training Packages	Equivalent unit

## Links

Companion Volumes, including Implementation Guides, are available at VETNet -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# Assessment Requirements for FBPOPR2061 Operate a wort production process

## Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 1.0

## Performance Evidence

An individual demonstrating competency in this unit must satisfy all of the elements and performance criteria of this unit.

There must be evidence that the individual has operated a wort production process on at least one occasion, including:

- accessing workplace information to identify process requirements
- confirming availability of materials and services
- conducting pre-start checks, including:
  - inspecting equipment condition to identify any signs of wear
  - selecting appropriate settings and/or related parameters
  - cancelling isolation or lock-outs
  - confirming that equipment is clean and correctly configured for processing requirements
  - positioning sensors and controls correctly
  - ensuring any scheduled maintenance has been carried out
  - confirming that all safety guards are in place and operational
- setting up and starting the milling process
- setting up and starting the mashing and lautering process
- setting up and starting the wort separation process
- setting up and starting the wort boiling and cooling process
- adding raw materials, including hops and malt
- operating a heat exchange procedure
- operating a cool wort aeration procedure
- transferring fluids and materials between vessels
- handling dangerous goods
- operating and monitoring equipment associated with wort production
- monitoring control points
- identifying work health and safety hazards and controls



- selecting, fitting and using personal protective clothing and equipment
- undertaking shutdowns and changeovers
- complying with procedures and responsibilities for reporting problems
- complying with environmental procedures and controls
- following waste-handling requirements and procedures
- recording required production data
- cleaning and sanitising equipment according to workplace procedures
- maintaining work area to meet housekeeping standards
- following relevant work health and safety procedures.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- purpose and principles of the wort production process
- relationship between the wort production process and the fermentation process
- stages and changes that occur during wort production
- requirements of wort production
- purpose of malt, hops, water, adjuncts and the preparation procedure
- correct procedures for handling dangerous goods, including dust explosion hazards and control procedures relevant to the wort production process
- quality characteristics to be achieved for the wort production process
- wort process specifications, procedures and operating parameters
- the importance of temperature, temperature control systems and temperature intervals during wort production
- purpose of wort production equipment and instrumentation components
- significance and methods of monitoring control points within the wort production process
- common causes of variation and corrective action required
- work health and safety hazards and controls, including the limitations of protective clothing and equipment relevant to the work process
- environmental issues and controls relevant to the process, including waste/rework collection and handling procedures
- cleaning requirements associated with changeovers and types of shutdowns
- procedures for reporting problems relevant to the wort production process
- cleaning and sanitation procedures for the wort production process.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - a workplace or an environment that accurately represents workplace conditions
- resources, equipment and materials:
  - personal protective clothing and equipment

- wort production equipment
- wort production raw materials/ingredients
- services as required
- stock required for the wort production process
- stock flow system
- related work areas and communication system
- routine preventative maintenance schedule
- cleaning schedule
- sampling and testing schedules
- specifications:
  - work procedures, including advice on safe work practices, food safety and environmental requirements
  - production schedule, batch instructions
  - material safety data sheets
  - information on specifications, control points and production parameters
  - documentation and recording requirements and procedures.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volumes, including Implementation Guides, are available at VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## FBPOPR2062 Work in a clean room environment

### Modification History

Release	Comments
Release 1	This version released with the FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

### Application

This unit of competency describes the skills and knowledge required to gown-up, enter and work in a clean room environment; and de-gown to minimise contamination risks.

This unit applies to individuals who work under general supervision in a food processing production environment.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

### Pre-requisite Unit

Nil

### Unit Sector

Operational (OPR)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare to enter a clean room environment	1.1 Identify and choose appropriate clothing and footwear 1.2 Fit and inspect clothing and footwear prior to entering a clean room 1.3 Follow hand washing and disinfecting procedures
2. Work in a clean room environment	2.1 Follow workplace procedures to enter a clean room environment 2.2 Conduct work activities to minimise risk of contamination

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
3. Exit a clean room environment and de-gown	3.1 Follow workplace procedures to exit a clean room environment 3.2 Remove protective clothing and footwear 3.3 Deposit clothing and footwear for laundering or disposal, in line with workplace guidelines

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"> <li>Access and interpret requirements of clean room environment</li> </ul>
Navigate the world of work	<ul style="list-style-type: none"> <li>Apply workplace procedures to own role and responsibilities</li> </ul>
Get the work done	<ul style="list-style-type: none"> <li>Conduct required tasks in accordance with set instructions</li> </ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPOPR2062 Work in a clean room environment	FDFOP2032A Work in a clean room environment	Updated to meet Standards for Training Packages  Prerequisites removed  Minor changes to Performance Criteria to clarify intent	Equivalent unit

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# Assessment Requirements for FBPOPR2062 Work in a clean room environment

## Modification History

Release	Comments
Release 1	This version released with the FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

## Performance Evidence

An individual demonstrating competency in this unit must satisfy all of the elements and performance criteria of this unit.

There must be evidence that the individual has worked in a clean room environment on at least one occasion, including:

- accessing workplace information to determine clean room work requirements
- confirming that protective clothing and footwear are appropriate for use
- following procedures to fit and inspect protective clothing and footwear
- following procedures to enter a clean room environment, including following appropriate hand washing and disinfecting procedures, and fitting gloves as required
- conducting work to minimise risk of contamination
- exiting the clean room environment according to workplace procedures
- removing protective clothing and footwear in correct sequence and depositing for laundering according to workplace procedures.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- purpose of and conditions required in a clean room environment, including how the clean room maintains a clean environment and related air flow systems
- preparation and handling requirements for garments and footwear worn in a clean room environment, including:
  - garment features appropriate to a clean room environment
  - inspection procedures to confirm clothing and footwear are fit for use prior to fitting
- inspection points to confirm that clothing and footwear are correctly fitted according to workplace procedures
- procedures to follow if garments are not fit for use

- clean room control measures and related monitoring requirements, including:
  - pressure differences between the clean room and change room and knowledge of location of pressure gauges
  - checking operating conditions of ventilation systems where required
- entry procedures
- requirements for conducting work in a clean room and consequences of not complying with these requirements (typically work is conducted slowly to minimise disturbance of particulates)
- procedures to follow to minimise risk of contamination, including cleaning, sanitation, sterilisation and disinfecting of equipment and surfaces
- conditions that can cause contamination, and control measures to avoid this occurring
- work health and safety hazards and controls, including the limitations of protective clothing and equipment relevant to the work process
- procedures for exiting and de-gowning
- laundering requirements and procedures
- housekeeping requirements for work area
- recording requirements and procedures.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - skills must be demonstrated in a workplace setting or an environment that accurately represents a clean room environment
- resources, equipment and materials:
  - protective clothing, footwear and equipment appropriate to a clean room
- specifications:
  - work procedures relevant to working in a clean room environment, including those specific to entering and exiting the clean room and to carrying out the relevant work function.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## FBPOPR2063 Clean equipment in place

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

### Application

This unit of competency describes the skills and knowledge required to prepare process equipment for cleaning in place or in-line. It applies to food processing equipment that is fixed in place and cannot be moved to a cleaning station. It requires the operator to initiate, monitor and control variables during cleaning.

This unit applies to individuals who work in food processing facilities performing a defined range of activities, most of which are routine and predictable.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

### Pre-requisite Unit

Nil

### Unit Sector

Operational (OPR)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare for cleaning	1.1 Read or listen to work instructions from supervisor and clarify where needed 1.2 Identify health and safety hazards in the workplace and tell supervisor 1.3 Wear appropriate personal protective equipment and ensure



Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	<p>correct fit</p> <p>1.4 Confirm that chemical stocks are available to meet cleaning and food safety requirements</p> <p>1.5 Confirm that services are available and ready for operation</p> <p>1.6 Plan equipment shut down and take equipment off-line for cleaning</p> <p>1.7 Configure equipment and related valves and pipework to confirm readiness for cleaning</p> <p>1.8 Set the plant for the cleaning cycle</p>
2. Operate and monitor the cleaning process	<p>2.1 Carry out the cleaning cycle as directed</p> <p>2.2 Monitor the cleaning process for completeness</p> <p>2.3 Record cleaning data appropriately</p> <p>2.4 Identify, rectify and report out-of-specification process and equipment performance</p>
3. Dispose of waste and return plant to operating condition	<p>3.1 Flush cleaning chemicals from plant and dispose of accordingly</p> <p>3.2 Set up plant to meet operational requirements</p> <p>3.3 Conduct work according to workplace environmental guidelines</p>

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Numeracy	<ul style="list-style-type: none"> <li>Decant and mix chemicals in the correct proportion</li> <li>Monitor actions including temperature gauges and tank levels</li> </ul>

## Unit Mapping Information

Code and title	Code and title	Comments	Equivalence status
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current version	previous version		
FBPOPR2063 Clean equipment in place	FDFOP2003A Clean equipment in place	Updated to meet Standards for Training Packages	Equivalent unit

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# Assessment Requirements for FBPOPR2063 Clean equipment in place

## Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

## Performance Evidence

An individual demonstrating competency must satisfy all of the elements and performance criteria in this unit.

There must be evidence that the individual has safely and effectively cleaned food processing equipment that is fixed in place, on a minimum of two occasions, including:

- shutting down equipment and preparing for cleaning
- preparing and using chemicals according to safe work requirements
- cleaning equipment to meet work standards
- monitoring cleaning and report or address any non-compliances
- flushing equipment and dispose of waste according to environmental guidelines
- completing required documentation
- applying safe work practices and identify health and safety hazards and controls in the workplace
- applying food safety procedures.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- purpose and basic principles of cleaning in place (CIP), including the use and functions of caustic and acid solutions, and cleaning sequence and stages as required in the workplace
- purpose and use of cleaning equipment and chemicals used
- terminology relating to the chemical solutions used
- safe work procedures, including appropriate signage of cleaning activities, and safe handling and storage of cleaners and sanitisers used
- health and safety workplace procedures, including purpose and limitations of personal protective equipment
- cleaning and sanitising requirements, including different levels of cleaning requirements

- characteristics of cleaning and sanitising chemicals used, including basic composition as well as compatibility of chemicals with types of equipment
- methods used to render equipment safe to clean, including the status and purpose of equipment guards, relevant lock out/tag out and isolation procedures
- equipment settings required for cleaning and operating
- basic operating principles of process control where relevant, including the relationship between control panels and systems and the physical equipment
- inspection points for cleaning and sanitising
- consequences of contamination of process flows by cleaning solutions and related safeguards
- types of waste generated by both the production and the cleaning process and related collection, treatment and disposal requirements
- environmental consequences of incorrect cleaning waste disposal procedures
- requirements to liaise with/advise related work areas
- reporting and recording systems.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - skills must be demonstrated in a workplace setting or an environment that accurately represents a real workplace
- resources, equipment and materials:
  - personal protective clothing and equipment
  - equipment to be cleaned, and related CIP system
  - chemicals and/or automated chemical addition system
- specifications:
  - workplace standard operating procedures and task-related documents.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## FBPOPR2064 Clean and sanitise equipment

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

### Application

This unit of competency describes the skills and knowledge required to clean, sanitise and carry out related procedures for food processing production equipment.

This unit applies to individuals who are primarily responsible for cleaning or where a more detailed knowledge of cleaning and sanitation processes is required in order to carry out cleaning responsibilities. This unit applies to both wet and dry cleaning methods.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

### Pre-requisite Unit

Nil

### Unit Sector

Operational (OPR)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare for cleaning	1.1 Read or listen to work instructions from supervisor and clarify where needed 1.2 Identify health and safety hazards in the workplace and inform supervisor 1.3 Wear appropriate personal protective equipment (PPE) and ensure correct fit

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	1.4 Confirm that cleaning and sanitising agents and services are available and ready for use 1.5 Clear equipment of product and packaging consumables in preparation for cleaning 1.6 Render equipment safe to clean 1.7 Liaise with other work areas about timing of cleaning
2. Clean and sanitise equipment to meet workplace requirements	2.1 Clean and sanitise equipment to workplace requirements 2.2 Inspect equipment to confirm operating condition and cleanliness 2.3 Identify, rectify and report unacceptable equipment condition 2.4 Store cleaning equipment and chemicals 2.5 Dispose of waste from cleaning process appropriately 2.6 Restore equipment to operating order 2.7 Complete documentation according to workplace requirements

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Oral communication	<ul style="list-style-type: none"> <li>Ask questions to clarify understanding or seek further information</li> </ul>
Numeracy	<ul style="list-style-type: none"> <li>Decant and mix chemicals in the correct proportion</li> <li>Monitor actions, including temperature gauges and tank levels</li> </ul>
Get the work done	<ul style="list-style-type: none"> <li>Locate stop functions on equipment</li> </ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status

FBPOPR2064 Clean and sanitise equipment	FDFOP2004A Clean and sanitise equipment	Updated to meet Standards for Training Packages	Equivalent unit
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## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# Assessment Requirements for FBOPR2064 Clean and sanitise equipment

## Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

## Performance Evidence

An individual demonstrating competency must satisfy all of the elements and performance criteria in this unit.

There must be evidence that the individual has safely and effectively cleaned and sanitised a minimum of two different items of equipment, including:

- preparing equipment for cleaning
- preparing and use chemicals according to safe work requirements
- cleaning and sanitising equipment to meet work standards
- monitoring cleaning and reporting or addressing any non-compliances
- disposing of waste according to environmental guidelines
- completing required documentation
- applying safe work practices and identifying health and safety hazards and controls in the workplace
- applying food safety procedures.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- the purpose of cleaning and sanitation and importance in maintaining food safety
- functions of cleaners, sanitisers and related equipment
- safe work procedures, including appropriate signage of cleaning activities, safe handling and storage of cleaners and sanitisers used, safety when using cleaning methods
- health and safety requirements in the workplace, including purpose and limitations of personal protective equipment (PPE)
- cleaning and sanitation requirements relating to work responsibilities, including the need for different levels of cleaning where relevant
- procedures for preparing cleaners and sanitisers as required
- cleaning methods to be followed relating to workplace procedures



- other work areas/operators who need to be consulted/advised on timing of cleaning
- methods used to render equipment safe to clean, including understanding the status and purpose of equipment guards, relevant lock out/tag out and isolation procedures and related equipment settings for both cleaning and operating as required
- procedures for cleaning and sanitising
- types of waste generated by the cleaning process and related collection, treatment and disposal requirements
- potential environmental impact of incorrect waste handling
- inspection, cleaning and storage requirements of cleaning equipment used
- inspection points and methods for confirming the effectiveness of cleaning and sanitation, including visual inspection, and where required, recording of cleaning conducted
- inspection requirements to confirm equipment condition, including acceptable equipment condition, ability to identify faulty or unacceptable equipment, and take required corrective action
- recording requirements and responsibilities.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - skills must be demonstrated in a workplace setting or an environment that accurately represents a real workplace
- resources, equipment and materials:
  - cleaning and sanitising equipment according to workplace requirements
  - cleaning equipment and chemicals
  - PPE
- specifications:
  - workplace standard operating procedures and task-related documents.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## FBPOPR2065 Conduct routine maintenance

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

### Application

This unit of competency describes the skills and knowledge required to inspect equipment and carry out routine maintenance and adjustment using a limited range of hand tools.

This unit applies to individuals who perform routine maintenance in a food and beverage environment. It typically targets the production worker responsible for conducting simple and routine maintenance tasks to support the operation of machines or equipment.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

### Pre-requisite Unit

Nil

### Unit Sector

Operational (OPR)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Conduct routine inspection of plant and equipment	1.1 Read or listen to work instructions from supervisor and clarify where needed 1.2 Identify health and safety hazards in the workplace and tell supervisor 1.3 Wear appropriate personal protective equipment and ensure correct fit

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	1.4 Inspect equipment to identify signs of wear 1.5 Assess the nature of maintenance requirement
2. Prepare to conduct routine maintenance	2.1 Assess the maintenance task to determine tools and services required 2.2 Prepare equipment for maintenance 2.3 Select hand tools according to task requirements 2.4 Check tools before use and report unsafe and faulty items 2.5 Plan and schedule maintenance in consultation with affected work areas to minimise disruption to production
3. Carry out routine maintenance	3.1 Carry out routine maintenance on equipment 3.2 Report maintenance activities in line with workplace procedures
4. Complete maintenance tasks	4.1 Return equipment to operating order when maintenance is complete 4.2 Store tools and materials 4.3 Notify the relevant personnel of maintenance completion 4.4 Maintain a clean and tidy workplace

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Oral communication	<ul style="list-style-type: none"> <li>Interact effectively with staff members</li> </ul>
Get the work done	<ul style="list-style-type: none"> <li>Make routine decisions to correct simple and familiar problems</li> <li>Apply routine fault finding methods to trace and identify equipment faults and implement standard and familiar solutions</li> </ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPOPR2065 Conduct routine maintenance	FDFOP2011A Conduct routine maintenance	Updated to meet Standards for Training Packages  Minor changes to Performance Criteria to clarify intent	Equivalent unit

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# Assessment Requirements for FBPOPR2065 Conduct routine maintenance

## Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

## Performance Evidence

An individual demonstrating competency must satisfy all of the elements and performance criteria in this unit.

There must be evidence that the individual has safely and effectively conducted routine maintenance on a minimum of two different items of plant and/or equipment, including:

- identifying routine maintenance tasks for machine or equipment
- monitoring operation and identifying need for maintenance tasks
- carrying out routine maintenance tasks according to workplace procedures
- on completion of maintenance tasks, returning equipment to operational order, including confirming that all equipment parts, nuts and bolts are accounted for and correctly tightened
- scheduling maintenance tasks that are beyond one's own job role and communicating requirements with affected personnel
- selecting and using appropriate tools to undertake routine maintenance within scope of own job role
- assessing readiness for returning machine or equipment to operation or referring for further attention
- completing maintenance documentation
- applying safe work practices and identifying health and safety hazards and controls in the workplace.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- systems and programs in place to manage routine maintenance of plant and equipment in the workplace
- responsibilities for participating in the maintenance program, including operator role and the role of others
- procedures for raising maintenance orders where requirements are outside operator role

- basic operating principles of equipment to be maintained
- signs and symptoms of faulty equipment and early warning signs of potential problems
- basic checks used to confirm the nature of maintenance requirements, including distinguishing between mechanical and electrical faults and identifying probable causes or conditions that may increase maintenance requirements of equipment used
- procedures for issuing, maintaining and storing tools used
- safe use of hand tools and measuring instrumentation relevant to maintenance responsibilities
- lubrication requirements, including requirements to use food grade lubricants as required, and consequences of using incorrect type or amount of lubricants
- safe work procedures, including appropriate signage of maintenance activities, use of appropriate personal protective equipment, and awareness of safety hazards and controls relating to maintenance tasks
- methods used to render equipment safe to work on or clean including lock out/tag out and isolation procedures (in some cases this may involve liaising with other maintenance operators)
- procedures and inspections to be carried out to confirm that equipment is in operating order and all parts are accounted for
- food safety risks arising from poor personal hygiene, cleaning and housekeeping practices and procedures associated with routine maintenance
- maintenance planning, scheduling and recording procedures.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - skills must be demonstrated in a workplace setting or an environment that accurately represents a real workplace
- resources, equipment and materials:
  - maintenance tools and equipment
  - operational machinery and equipment
  - safety equipment
  - spares and consumables
- specifications:
  - operation procedures
  - service equipment and maintenance instructions.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>



## FBPOPR2066 Apply sampling procedures

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

### Application

This unit of competency describes the skills and knowledge required to interpret sampling plans, and to collect and transfer samples to retain sample integrity.

This unit applies to individuals who would typically be required to follow specific sampling procedures under general supervision.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

### Pre-requisite Unit

Nil

### Unit Sector

Operational (OPR)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare for sampling	1.1 Read or listen to work instructions from supervisor and clarify where needed 1.2 Identify health and safety hazards in the workplace and inform supervisor 1.3 Wear appropriate personal protective equipment and ensure correct fit 1.4 Identify sampling requirements in the sampling plan



Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	1.5 Prepare sampling equipment, containers and labels
2. Collect samples	2.1 Collect samples as specified in the sampling plan 2.2 Handle and prepare samples to preserve sample and source integrity 2.3 Identify and report defects or abnormalities in source material and sample 2.4 Record sample information in line with workplace requirements 2.5 Maintain a clean and tidy workplace

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Writing	<ul style="list-style-type: none"> <li>Record sample information accurately</li> </ul>
Get the work done	<ul style="list-style-type: none"> <li>Solve familiar and generally predictable problems within workplace guidelines</li> </ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPOPR2066 Apply sampling procedures	FDFOP2013A Apply sampling procedures	Updated to meet Standards for Training Packages  Minor changes to Performance Criteria to clarify intent	Equivalent unit

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# Assessment Requirements for FBPOPR2066 Apply sampling procedures

## Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

## Performance Evidence

An individual demonstrating competency must satisfy all of the elements and performance criteria in this unit.

There must be evidence that the individual has safely and effectively taken 10 samples, in line with the sampling plan, including:

- accessing and interpreting sampling plan to identify requirements
- selecting, fitting and using personal protective equipment
- preparing for sampling to ensure required tools, containers and labels are available
- following sampling procedures and the sampling plan to collect samples from the designated points, in the quantities and at the times specified
- identifying atypical source materials and/or samples and take corrective action, such as reporting abnormalities, repeating sample collection and/or following intensive sampling schedules
- completing sample records according to workplace requirements, such as labelling samples as required
- transferring samples for testing
- maintaining work area to meet housekeeping standards.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- health and safety hazards and controls in the workplace, including the purpose and limitations of personal protective equipment
- basic sampling principles, including the importance of following the sampling plan to obtain representative sampling reflecting characteristics of source material, the sample characteristics and related preservation, handling and storage requirements, and the labelling system purpose and requirements
- tests to be conducted on samples, and related handling and preparation requirements and responsibilities

- characteristics of materials sampled, and common contaminants and related conditions under which contamination is likely to occur
- sampling techniques relevant to samples collected, such as sterilisation methods and procedures
- the relationship between sampling, testing and production processes, including different sampling regimes that may apply in response to non-standard conditions or after corrective action is taken to adjust production outputs
- procedures and responsibility for reporting and recording sampling information, including legislative requirements
- procedures for preparing samples.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - skills must be demonstrated in a workplace setting or an environment that accurately represents a real workplace
- resources, equipment and materials:
  - sampling plan
  - recording and reporting system
  - sampling equipment and containers as required
  - product/source material to be sampled.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## FBPOPR2067 Work in a food handling area for non-food handlers

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

### Application

This unit of competency describes the skills and knowledge required to conduct work in a food handling area where the work does not involve direct food contact.

This unit applies to individuals who typically work in stores, warehousing, cleaning and maintenance roles. This unit is not appropriate for a person who has direct contact with food or raw materials or ingredients. Where this is a requirement, refer to relevant food safety units.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

### Pre-requisite Unit

Nil

### Unit Sector

Operational (OPR)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Maintain food safety while working in a food handling area	1.1 Read or listen to work instructions from supervisor and clarify where needed 1.2 Identify health and safety hazards in the workplace and inform supervisor

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	1.3 Wear appropriate personal protective equipment and ensure correct fit 1.4 Identify and follow food safety requirements related to work tasks 1.5 Carry out work responsibilities so that the safety of food is maintained 1.6 Identify and report procedures or practices which are inconsistent with requirements of the workplace food safety program
2. Maintain food handling area in clean and orderly state	2.1 Confirm that equipment and the food handling area meet the cleaning and sanitation requirements of workplace food safety program 2.2 Collect and dispose of waste according to workplace requirements

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Oral communication	<ul style="list-style-type: none"> <li>Ask questions to clarify understanding or seek further information</li> </ul>
Get the work done	<ul style="list-style-type: none"> <li>Maintain a clean and hazard-free work area</li> </ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPOPR2067 Work in a food handling area for non-food handlers	FDFOP2016A Work in a food handling area for non-food handlers	Updated to meet Standards for Training Packages  Minor changes to Performance Criteria to clarify intent	Equivalent unit

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## Assessment Requirements for FBPOPR2067 Work in a food handling area for non-food handlers

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

### Performance Evidence

An individual demonstrating competency must satisfy all of the elements and performance criteria in this unit.

There must be evidence that the individual has worked safely and effectively in a food handling area, in a non-food handling role, to effectively maintain food safety standards on at least two different occasions, including:

- accessing and applying workplace information on food safety policies and procedures relevant to own work
- fitting and using appropriate personal protective clothing and equipment as required by work tasks to meet food business requirements
- checking own work area to identify food safety hazards
- carrying out work responsibilities to ensure that food safety is not compromised
- taking necessary precautions when moving between or around the workplace and/or from one task to another to minimise the risk of contamination
- recognising and reporting situations or procedures that could compromise food safety
- sorting and disposing of waste according to workplace procedure
- maintain workplace standards in work area.

### Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- health and safety hazards and controls in the workplace, including the purpose and limitations of protective clothing and equipment
- food safety requirements related to own work as determined by the workplace
- sources of advice on food safety issues and responsibilities in the workplace
- personal hygiene practices and clothing and footwear requirements associated with working in and moving in and between food handling areas and moving between food handling and non-food handling areas



- suitable standard for materials and equipment used in the food handling area, including materials that are unsuitable for use
- methods and procedures to be followed when carrying out work responsibilities in a food handling area to ensure that food safety is not compromised
- the types of contamination that can occur as a result of work activities, and procedures used to prevent these types of contamination from occurring
- cleaning and sanitation requirements and responsibilities, including cleaning methods appropriate to a food handling environment and those used in the specific food handling area
- waste collection, recycling and handling procedures
- workplace standards to be maintained in the work area.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - skills must be demonstrated in a workplace setting or an environment that accurately represents a real workplace
- resources, equipment and materials:
  - work area and related equipment to undertake work function
  - waste collection, treatment, recycling and/or disposal equipment
- specifications:
  - food safety policies and procedures relevant to work role
  - work procedures, including procedures for entering and exiting food handling areas.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## FBPOPR2068 Operate a process control interface

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

### Application

This unit of competency describes the skills and knowledge required to operate a computer-based interface to modify and/or interrogate a control system.

This unit applies to individuals who work under general supervision. This includes identifying and providing solutions to a limited range of predictable problems.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

### Pre-requisite Unit

Nil

### Unit Sector

Operational (OPR)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Navigate the process control interface	1.1 Confirm the readiness of the control interface and related components for operation 1.2 Use the hardware provided to operate the interface 1.3 Use page links to move between screens 1.4 Acknowledge messages and alarms 1.5 Access required information from screen displays

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	1.6 Record interface system malfunctions and report to supervisor
2. Use interface system to operate and maintain a process within required parameters	2.1 Start, monitor and shut down individual items of equipment and processes using the control interface 2.2 Select equipment, alter status and enter settings to meet operating requirements 2.3 Activate sequences to initiate process operation 2.4 Recognise equipment giving a bad signal or bad measurements and take responsive action
3. Analyse data to predict and control performance	3.1 Select and analyse trends to identify performance patterns 3.2 Identify causes of abnormal or unacceptable performance and take corrective action 3.3 Record information in workplace format

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"> <li>Access and interpret process control panels and system</li> </ul>
Numeracy	<ul style="list-style-type: none"> <li>Monitor and interpret production and process control indicators and data</li> <li>Monitor supply and flow of materials and product</li> </ul>
Navigate the world of work	<ul style="list-style-type: none"> <li>Ask questions to clarify understanding or seek further information</li> </ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
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FBPOPR2068 Operate a process control interface	FDFOP2030A Operate a process control interface	Updated to meet Standards for Training Packages  Minor changes to Performance Criteria to clarify intent	Equivalent unit
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## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# Assessment Requirements for FBPOPR2068 Operate a process control interface

## Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

## Performance Evidence

An individual demonstrating competency must satisfy all of the elements and performance criteria in this unit.

There must be evidence that the individual has safely and effectively operated a process control interface on at least two occasions, including:

- recognising and responding to error messages and alarms
- accessing relevant performance data using the control system, including locating and interpreting performance trend information
- recording log information using the interface system according to workplace procedures.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- processes and equipment being controlled, including required processing sequences
- operating principles of process control and interface system, including the relationship between control panels, systems and the physical equipment, and where relevant, operating conditions required for accurate information input from sensors and related instrumentation
- action required to respond to error messages and alarms
- typical faults that can occur when operating a process control interface and corrective action required
- performance data collected by the control interface system and its application to troubleshoot performance, including the ability to identify and investigate related trend data to track cause and effect
- recording requirements and responsibilities.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - skills must be demonstrated in a workplace setting or an environment that accurately represents a real workplace
- resources, equipment and materials:
  - process control interface hardware and software
  - work station or equipment to be controlled
  - process to be controlled
  - communication systems and equipment
  - workplace information recording systems, requirements and procedures
- specifications:
  - operating procedures and related advice on equipment operation.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## FBPOPR2069 Use numerical applications in the workplace

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

### Application

This unit of competency describes the skills and knowledge required to use numerical applications in the workplace.

This unit applies to individuals who work under general supervision.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

### Pre-requisite Unit

Nil

### Unit Sector

Operational (OPR)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Apply basic mathematical concepts to calculate workplace information	1.1 Identify calculation requirements and select appropriate method 1.2 Obtain data from relevant sources and interpret correctly 1.3 Undertake calculations using addition, subtraction, multiplication and division to support work role
2. Apply basic mathematical concepts to estimate workplace	2.1 Identify estimation requirements and select appropriate estimation 2.2 Obtain data from relevant sources and interpret correctly 2.3 Make estimations of quantities, ratios and speed to meet work

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
information	requirements 2.4 Record calculations and measurement information according to workplace procedures

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"> <li>Interpret work tasks, instructions, procedures and other basic workplace documentation requiring numerical applications</li> </ul>
Navigate the world of work	<ul style="list-style-type: none"> <li>Understand tasks and responsibilities requiring numerical applications in the workplace</li> <li>Ask questions to clarify understanding or seek further information</li> </ul>
Interact with others	<ul style="list-style-type: none"> <li>Communicate information with relevant personnel</li> </ul>
Get the work done	<ul style="list-style-type: none"> <li>Recognise simple problems and seek guidance to correct</li> </ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPOPR2069 Use numerical applications in the workplace	FDFOP2061A Use numerical applications in the workplace	Updated to meet Standards for Training Packages Minor changes to Performance Criteria to clarify intent	Equivalent unit



## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# Assessment Requirements for FBPOPR2069 Use numerical applications in the workplace

## Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

## Performance Evidence

An individual demonstrating competency must satisfy all of the elements and performance criteria in this unit.

There must be evidence that the individual has effectively used numerical applications for work purposes, on at least two different occasions, including:

- identifying whether a calculation or estimation is required to meet workplace requirements
- performing calculations involving basic addition, subtraction, division and multiplication to support work role (this may involve use of a calculator and conversion tables)
- using estimation techniques to check quantities, ratios, speed and other required data estimates
- using estimation techniques to check calculated results and workplace data
- recording calculations and measurement information accurately, according to workplace procedures.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- mathematical processes, including addition, subtraction, multiplication and division
- application of calculation and estimation techniques to meet work requirements
- units of measurement used in the workplace, including whole numbers, fractions and decimals to one decimal point (this may include use of conversion charts)
- representation of numerical information relevant to work requirements, including charts, graphs and tables
- recording requirements and responsibilities relevant to work role.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - skills must be demonstrated in a workplace setting or an environment that accurately represents a real workplace
- resources, equipment and materials:
  - real or simulated work tasks requiring simple estimation and calculation
  - conversion tables, calculators and measuring instruments.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## FBPOPR2070 Apply quality systems and procedures

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

### Application

This unit of competency describes the skills and knowledge required to monitor quality of work outcomes to maintain and improve quality at work.

This unit applies to individuals who work under general supervision and exercise limited autonomy.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

### Pre-requisite Unit

Nil

### Unit Sector

Operational (OPR)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Monitor quality of work outcome	1.1 Identify quality requirements of work process 1.2 Inspect inputs to confirm capability to meet quality requirements 1.3 Conduct work to produce required outcomes 1.4 Monitor work processes to confirm quality of output and/or service 1.5 Adjust processes to maintain outputs within specification

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
2. Participate in maintaining and improving quality at work	2.1 Monitor work area, materials, processes and product to ensure compliance with quality requirements and health and safety procedures 2.2 Conduct work in accordance with workplace environmental guidelines 2.3 Identify and report non-conformance in inputs, process, product and/or service according to workplace reporting requirements 2.4 Take corrective action within level of responsibility to maintain quality standards 2.5 Raise quality issues with designated personnel 2.6 Record quality data in accordance with workplace procedures

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"> <li>Interpret basic quality directions and instructions</li> </ul>
Numeracy	<ul style="list-style-type: none"> <li>Perform basic numerical calculations related to monitoring, sampling and testing</li> <li>Correct/control variation within equipment and process capacity parameters</li> </ul>
Interact with others	<ul style="list-style-type: none"> <li>Communicate and report quality information to relevant personnel</li> </ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPOPR2070 Apply quality	FDFOP2063A Apply quality	Updated to meet Standards for Training	Equivalent unit

systems and procedures	systems and procedures	Packages Minor changes to Performance Criteria to clarify intent	
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## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# Assessment Requirements for FBPOPR2070 Apply quality systems and procedures

## Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

## Performance Evidence

An individual demonstrating competency must satisfy all of the elements and performance criteria in this unit.

There must be evidence that the individual has applied quality systems and procedures on at least two separate occasions, including:

- identifying control points or inspection points for own work and related methods used to monitor quality
- maintaining quality of own work, including relevant checks and inspections where required in order to monitor control points and check and inspect equipment, materials, product, packaging consumables, processing conditions and service standards relevant to own work
- determining when and how to make adjustments to maintain output within specified parameters
- identifying and responding to out-of-specification or unacceptable inputs and/or outputs
- recording quality data in required format.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- quality policy, procedures and responsibilities
- quality system used in the workplace, sources of information on quality requirements, the role of internal and external auditors, as appropriate, and performance improvement processes
- basic concepts of quality assurance, including hazards, risk assessment and control methods
- requirements of internal and external customers
- control points for own work, including the purpose of the control point, the risk if not controlled and the method of control used
- monitoring, testing and inspection procedures relating to process control requirements

- scope to correct/control variation within equipment and process capacity parameters
- evidence of out-of-specification or unacceptable performance
- procedures for responding to out-of-specification or unacceptable performance/outcomes, including procedures for identifying or isolating materials or product of unacceptable quality
- systems used to trace product ingredients as relevant to own work
- requirements to report and record quality information.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - skills must be demonstrated in a workplace setting or an environment that accurately represents a real workplace
- resources, equipment and materials:
  - sampling and test procedures and related equipment
  - systems for recording quality information
- specifications:
  - work instructions
  - quality policy, system and procedures, including company codes of practice/Good Manufacturing Practice.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>



## FBPOPR2071 Provide and apply workplace information

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

### Application

This unit of competency describes the skills and knowledge required to provide and apply workplace information.

This unit applies to individuals who work under general supervision and exercise limited autonomy.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

### Pre-requisite Unit

Nil

### Unit Sector

Operational (OPR)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Provide and apply information to suit workplace and audience requirements	1.1 Identify information requirements for work operations 1.2 Collect and assess required information 1.3 Select and structure information in a logical way to convey meaning to others 1.4 Use appropriate methods to communicate effectively with others
2. Respond to	2.1 Process information requests promptly and courteously

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
information requests	2.2 Apply effective listening and verbal communication skills to obtain information 2.3 Clarify the nature of requests 2.4 Provide appropriate information in response to requests 2.5 Provide information in a form appropriate to the enquirer 2.6 Refer requests to appropriate personnel where they fall outside area of responsibility
3. Use and maintain workplace information	3.1 Access a range of information sources to support work requirements 3.2 Record information in appropriate formats according to workplace reporting requirements 3.3 Interpret information to inform work requirements 3.4 Apply effective listening and verbal communication to exchange information

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"> <li>Interpret basic directions and instructions</li> </ul>
Writing	<ul style="list-style-type: none"> <li>Use paper based and electronic proformas to record and store basic workplace information and data</li> </ul>
Get the work done	<ul style="list-style-type: none"> <li>Recognise simple problems and seek guidance to correct</li> <li>Take responsibility for and reflect on low-impact decisions about work tasks</li> <li>Recognise and support the application of new ideas</li> </ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPOPR2071 Provide and apply workplace information	FDFOP2064A Provide and apply workplace information	Updated to meet Standards for Training Packages  Minor changes to Performance Criteria to clarify intent	Equivalent unit

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# Assessment Requirements for FBPOPR2071 Provide and apply workplace information

## Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

## Performance Evidence

An individual demonstrating competency must satisfy all of the elements and performance criteria in this unit.

There must be evidence that the individual has effectively provided and applied workplace information on at least one occasion, including:

- identifying and accessing information to undertake work responsibilities
- ascertaining or clarifying information requirements by asking questions
- preparing and presenting simple written or verbal presentations that structure and present information in a logical sequence
- working effectively with others to achieve work outcomes
- respecting and, where appropriate, representing the views of others
- recording information in required format.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- communication channels, including consultative arrangements established in the workplace
- common colloquial and technical terms relating to work function
- sources of information and advice relating to work responsibilities
- methods and technologies used to access, record and store workplace information, including print, and screen-based systems as relevant to the workplace
- presentation techniques to convey information on a range of typical workplace subjects appropriate to the audience
- recognition of different personal communication styles and appropriate communication options
- recognition of cultural diversity as appropriate in the workplace
- reporting roles and responsibilities

- interpersonal skills, including active listening, questioning, seeking and responding to feedback
- basic meeting procedures to identify and achieve meeting/discussion outcomes.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - skills must be demonstrated in a workplace setting or an environment that accurately represents a real workplace
- resources, equipment and materials:
  - advice on work roles and responsibilities
  - typical workplace information
  - standard forms and equipment for recording workplace information, as required.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# FBPOPR2072 Work in confined spaces in the food and beverage industries

## Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

## Application

This unit of competency describes the skills and knowledge required to work in confined spaces in the food and beverage industries.

This unit applies to individuals who work under general supervision and exercise limited autonomy in a food or beverage processing environment.

All work must be carried out to comply with workplace procedures, according to state/territory health and safety, and food safety regulations, legislation and standards that apply to the workplace. Confined space entry work permits may be required.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

## Pre-requisite Unit

Nil

## Unit Sector

Operational (OPR)

## Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Plan and prepare for entering and working in confined spaces	1.1 Access, interpret and apply compliance documentation relevant to entering and working in confined spaces 1.2 Obtain, confirm and apply work instructions and safety

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	<p>requirements</p> <p>1.3 Obtain authorisation (entry permit) to enter the confined space</p> <p>1.4 Select, fit and use personal protective equipment according to job requirements</p> <p>1.5 Confirm emergency response procedure with the stand-by person</p> <p>1.6 Identify, obtain and position signage, barriers and rescue equipment according to workplace requirements</p> <p>1.7 Select tools and equipment to carry out tasks, check for serviceability and rectify or report faults</p> <p>1.8 Identify, confirm and apply environmental protection requirements</p>
2. Enter and work in the confined space	<p>2.1 Gain access to the confined space</p> <p>2.2 Test and monitor the atmosphere for harmful elements</p> <p>2.3 Apply tagging and lock-out procedures</p> <p>2.4 Enter confined space</p> <p>2.5 Maintain communication with the stand-by person</p> <p>2.6 Comply with entry permit requirements</p> <p>2.7 Monitor and adhere to allocated entry time</p>
3. Exit confined space	<p>3.1 Exit confined space</p> <p>3.2 Recover tools, equipment and materials</p> <p>3.3 Conduct inspection of the confined space to ensure it is left safe and fit for purpose</p> <p>3.4 Secure access</p> <p>3.5 Remove tagging and lock-out</p> <p>3.6 Complete confined space entry log</p>
4. Clean-up work area	<p>4.1 Clear work area and dispose of or recycle materials</p> <p>4.2 Clean, check, maintain and store tools and equipment</p> <p>4.3 Remove, clean and store barriers and signs</p>

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"><li>Interpret basic directions and instructions</li></ul>
Oral communication	<ul style="list-style-type: none"><li>Ask questions to clarify understanding or seek further information</li></ul>
Numeracy	<ul style="list-style-type: none"><li>Interpret data related to air quality</li></ul>
Navigate the world of work	<ul style="list-style-type: none"><li>Apply workplace procedures to own role and responsibilities</li><li>Understand tasks and responsibilities required for work in confined spaces</li></ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPOPR2072 Work in confined spaces in the food and beverage industries	FDFOP2065A Work in confined spaces in the food and beverage industries	Updated to meet Standards for Training Packages  Minor changes to Performance Criteria to clarify intent  Prerequisite removed	Equivalent unit

## Links

Companion Volume Implementation Guides are found in VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>



# Assessment Requirements for FBPOPR2072 Work in confined spaces in the food and beverage industries

## Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

## Performance Evidence

An individual demonstrating competency must satisfy all of the elements and performance criteria in this unit.

There must be evidence that the individual has safely and effectively prepared for, entered and exited at least two confined spaces in the food and beverage industry. For each of the confined spaces there must be evidence that the individual has:

- applied work instructions, compliance and safety requirements
- obtained required authorisation to enter
- obtained and used signage, barriers, equipment and tools
- obtained and used appropriate personal protective equipment (PPE)
- conducted atmospheric testing and monitoring
- completed working in confined space within specified entry time
- applied tagging and lock-out requirements
- after exiting, ensured that confined space and general work area is left clean and fit for use.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- areas that constitute confined spaces
- site and equipment safety requirements
- entry and exit procedures, risks and regulations
- types of air contaminants and toxic gases
- limitations of breathing apparatus
- equipment types, characteristics, technical capabilities and limitations
- site isolation and site control responsibilities and authorities
- locations of safety data sheets information and application
- confined space and Industry terminology

- risks, hazards and control measures associated with confined spaces.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - skills must be demonstrated in a workplace setting or an environment that accurately represents a real workplace
- resources, equipment and materials:
  - PPE
  - equipment related to work task
- specifications:
  - work procedures, entry permits, including advice on company practices, safe work practices, quality and environmental requirements.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# FBPOPR3001 Control contaminants and allergens in the workplace

## Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 1.0

## Application

This unit of competency describes the skills and knowledge required to control contaminants and allergens in the workplace.

This unit applies to individuals who work under broad direction and take responsibility for their own work in a food or beverage processing environment.

All work must be carried out to comply with workplace procedures, in accordance with State/Territory work health and safety, and food safety regulations, legislation and standards that apply to the workplace.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

## Pre-requisite Unit

FDFFS2001A Implement the food safety program and procedures

## Unit Sector

Operational (OPR)

## Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Assess risk of physical contamination	1.1 Identify types and sources of physical contamination in the workplace

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	<p>1.2 Identify risks of physical contamination to operations, product and consumer</p> <p>1.3 Identify control measures to eliminate or reduce risks of physical contamination</p> <p>1.4 Assess workplace procedures and practices to determine level of risk for physical contaminants and identify opportunities for improvement</p>
2. Assess risk of chemical contamination	<p>2.1 Identify types and sources of chemical contamination in the workplace</p> <p>2.2 Identify risks of chemical contamination to operations, product and consumer</p> <p>2.3 Identify control measures to eliminate or reduce risks of chemical contamination</p> <p>2.4 Assess workplace procedures and practices to determine level of risk for chemical contaminants and identify opportunities for improvement</p>
3. Assess risk of microbiological contamination	<p>3.1 Identify types and sources of microbiological contamination in the workplace</p> <p>3.2 Identify risks of microbiological contamination to operations, product and consumer</p> <p>3.3 Identify control measures to eliminate or reduce risks of microbiological contamination</p> <p>3.4 Assess workplace procedures and practices to determine level of risk for microbiological contaminants and identify opportunities for improvement</p>
4. Assess risk of allergens in the workplace	<p>4.1 Identify types and sources of allergens in the workplace</p> <p>4.2 Identify risks of allergens to operations, product and consumer</p> <p>4.3 Identify control measures to eliminate or reduce risks of allergens</p> <p>4.4 Assess workplace procedures and practices to determine level of risk for allergens and identify opportunities for improvement</p>
5. Implement control measures to manage contaminants and allergens	<p>5.1 Implement control measures to minimise contaminants and allergens as part of work operations</p> <p>5.2 Identify emergency procedures and conditions for implementation</p> <p>5.3 Identify and complete reporting and documentation associated</p>

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	with controls, as required 5.4 Conduct control measures in accordance with workplace environmental guidelines

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"> <li>Interpret workplace and standard operating procedures relevant to job role</li> <li>Read and interpret food safety program requirements</li> <li>Interpret workplace food safety practices, procedures and control measures</li> </ul>
Writing	<ul style="list-style-type: none"> <li>Record results of inspection, sampling and testing</li> <li>Report contamination and allergen risk</li> </ul>
Numeracy	<ul style="list-style-type: none"> <li>Monitor and interpret control indicators and data</li> </ul>
Navigate the world of work	<ul style="list-style-type: none"> <li>Apply workplace procedures to own role and responsibilities</li> <li>Identify skills, knowledge and experience required for performing own role in the workplace</li> <li>Ask questions to clarify understanding or seek further information</li> </ul>
Interact with others	<ul style="list-style-type: none"> <li>Select and use communication strategies appropriate for purpose when interacting with work colleagues and customers</li> <li>Use active listening, observational and questioning techniques to confirm information about food safety program</li> <li>Identify and describe responsibilities, skills, knowledge and experience within context of job role</li> <li>Seek and provide feedback on current work performance</li> </ul>
Get the work done	<ul style="list-style-type: none"> <li>Maintain a clean and hazard-free work area</li> <li>Manage and prioritise tasks and timelines</li> <li>Make decisions and solve problems related to control of contaminants and allergens</li> </ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPOPR3001 Control contaminants and allergens in the workplace	FDFOP3001A Control contaminants and allergens in the workplace	Updated to meet Standards for Training Packages	Equivalent unit

## Links

Companion Volumes, including Implementation Guides, are available at VETNet -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# Assessment Requirements for FBPOPR3001 Control contaminants and allergens in the workplace

## Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 1.0

## Performance Evidence

An individual demonstrating competency in this unit must satisfy all of the elements and performance criteria of this unit.

There must be evidence that the individual has controlled contaminants and allergens in the workplace on at least one occasion, including:

- identifying the types of physical, chemical and microbiological contaminants and allergens that present a risk in the workplace
- identifying sources of risks
- examining control measures
- describing the appropriate monitoring requirements for each risk, including:
  - method or procedure to be followed
  - frequency and timing
  - person responsible
  - information to be recorded (procedures to be followed would be typically specified in the form of a standard operating procedure or work instruction)
- describing corrective action requirements in the event that acceptable limits or requirements of controls are not met
- developing or reviewing documentation relating to the food safety program, including process flow diagrams, hazard analysis charts and tables, support program requirements, data analysis reports, corrective action reports and verification reports
- using oral communication skills/language competence to fulfil the job role as specified by the organisation, including questioning, active listening, asking for clarification and seeking advice from supervisor
- communicating food safety responsibilities within level of responsibility
- implementing control measures as part of work operations
- identifying emergency procedures and conditions for implementation
- following relevant work health and safety procedures.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- the purpose and intent of food safety legislation and control measures for contaminants and allergens
- roles and responsibilities for development and maintenance of the control measures
- food processing methods used in the workplace or work area and the risks of contamination
- sources of technical expertise on contaminants and allergens
- the role of control measures in the food safety program
- documentation and recording requirements to support communication and monitoring of the food safety program, including procedures for maintaining and updating relevant documents, including operating procedures
- main types of food safety contamination likely to occur given the type of product and processing methods used
- acceptable control methods for the hazards identified, and required corrective action when control requirements are not met
- validation and verification processes, techniques, and responsibilities to control contaminants and allergens in the workplace.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - a workplace or an environment that accurately represents workplace conditions
- specifications:
  - work procedures, including advice on safe work practices, food safety, quality and environmental requirements
  - information on monitoring requirements, control methods and corrective action for risks
  - documentation and recording requirements and procedures.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volumes, including Implementation Guides, are available at VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>



## FBPOPR3002 Prepare food products using basic cooking methods

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 1.0

### Application

This unit of competency describes the skills and knowledge required to prepare food products using basic cooking methods.

This unit applies to individuals who work under broad direction and take responsibility for their own work in a food processing environment.

All work must be carried out to comply with workplace procedures, in accordance with State/Territory work health and safety, and food safety regulations, legislation and standards that apply to the workplace.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

### Pre-requisite Unit

FDFFS2001A Implement the food safety program and procedures

### Unit Sector

Operational (OPR)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Select and handle cooking tools and equipment	1.1 Prepare work area for operations and confirm hygiene standards 1.2 Wear appropriate personal protective clothing and ensure correct fit

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	<p>1.3 Identify, handle and store cooking utensils required for work according to workplace procedures</p> <p>1.4 Identify and prepare equipment and machinery required for cooking operation according to workplace procedures</p> <p>1.5 Identify and implement maintenance requirements for knives and other utensils</p> <p>1.6 Implement food safety requirements at all times when handling and using cooking utensils and equipment</p>
2. Prepare ingredients	<p>2.1 Examine recipe and identify required ingredients</p> <p>2.2 Determine sequence for preparation</p> <p>2.3 Select ingredients and confirm quantity and quality using measuring or weighing devices or sensory analysis techniques</p> <p>2.4 Prepare and assemble ingredients according to recipe requirements</p> <p>2.5 Store ingredients according to workplace procedures</p>
3. Use basic cooking methods	<p>3.1 Identify the range of basic cooking methods and their effect on quality, taste and nutritional value</p> <p>3.2 Identify cooking methods required by recipe and determine sequence</p> <p>3.3 Apply cooking method to achieve quality standards for food item</p> <p>3.4 Identify and address typical problems as they arise</p> <p>3.5 Use cooking utensils and equipment according to manufacturer instructions</p> <p>3.6 Apply waste minimisation and environmental considerations during cooking process</p> <p>3.7 Clean cooking area, utensils and equipment, and store according to workplace standards</p>
4. Finish product	<p>4.1 Transfer cooked ingredients for further processing</p> <p>4.2 Assemble final product and present or pack according to recipe or operating requirements</p>

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Numeracy	<ul style="list-style-type: none"> <li>Estimate and calculate ingredient amounts</li> <li>Determine preparation and cooking times from packaging and recipes</li> <li>Measure quantities of ingredients</li> </ul>
Reading	<ul style="list-style-type: none"> <li>Read cooking instructions from recipe books</li> <li>Read and interpret hygiene and food safety requirements from food safety program information</li> </ul>
Navigate the world of work	<ul style="list-style-type: none"> <li>Apply workplace procedures relevant to own responsibilities</li> <li>Understand main tasks, responsibilities and boundaries of own role, including use of personal protective clothing and equipment, housekeeping standards and procedures, quality requirements and operating procedures</li> </ul>
Interact with others	<ul style="list-style-type: none"> <li>Communicate and report operational and safety information to relevant persons</li> <li>Select and use appropriate terminology when communicating with others</li> <li>Cooperate with others to rectify work health and safety hazards and operational maintenance requirements</li> <li>Participate in conversations relevant to role by responding, explaining, negotiating and persuading</li> </ul>
Get the work done	<ul style="list-style-type: none"> <li>Safely use/operate cooking tools and equipment</li> <li>Make routine decisions to correct familiar and routine problems</li> <li>Identify and follow quality and hygiene requirements</li> </ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPOPR3002 Prepare food products using basic cooking methods	FDFOP3005A Prepare food products using basic cooking methods	Updated to meet Standards for Training Packages	Equivalent unit

## Links

Companion Volumes, including Implementation Guides, are available at VETNet -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# Assessment Requirements for FBPOPR3002 Prepare food products using basic cooking methods

## Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 1.0

## Performance Evidence

An individual demonstrating competency in this unit must satisfy all of the elements and performance criteria of this unit.

There must be evidence that the individual has prepared two different food products using basic cooking methods on one or two occasions, including:

- identifying and accessing ingredients
- reading and interpreting recipe requirements
- safely and correctly using work utensils and equipment
- interpreting numerical information on quantities and conducting measurements
- applying safe work and food safety standards
- selecting, fitting and using personal protective clothing and equipment
- planning operations
- applying cooking method to achieve quality standards for food item
- identifying cooking problems and taking corrective action, including reporting abnormalities or problems, repeating processes and/or making required adjustments
- maintaining work area to meet housekeeping standards
- following relevant work health and safety procedures.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- uses and characteristics of basic food ingredients
- major food groups and classifications
- range of ingredients typically used in the workplace and their characteristics and effect on food quality and taste
- principles of basic cookery
- food safety standards in the workplace
- common terminology used in cooking

- maintenance requirements for knives and other utensils
- basic cooking methods and their effect on quality, taste and nutritional value
- waste minimisation and environmental considerations related to preparing food products using basic cooking methods.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - a workplace or an environment that accurately represents workplace conditions
- resources, equipment and materials:
  - personal protective clothing and equipment
  - ingredients, utensils and equipment to be used for preparation of food products
  - recipes
  - cleaning procedures, materials and equipment
- specifications:
  - work procedures, including advice on safe work practices, food safety, quality and environmental requirements.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volumes, including Implementation Guides, are available at VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# FBPOPR3003 Identify cultural, religious and dietary considerations for food production

## Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 1.0

## Application

This unit of competency describes the skills and knowledge required to identify cultural, religious and dietary considerations for food production.

This unit applies to individuals who work under broad direction and take responsibility for their own work in a food or beverage processing environment.

All work must be carried out to comply with workplace procedures, in accordance with State/Territory work health and safety, and food safety regulations, legislation and standards that apply to the workplace.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

## Pre-requisite Unit

Nil

## Unit Sector

Operational (OPR)

## Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Identify requirements of customers with cultural and religious	1.1 Identify cultural and religious practices and events that influence food production requirements 1.2 Identify food production methods and food products that cater for

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
backgrounds	cultural and religious practices and events 1.3 Assess the suitability of current food production methods and current food products against cultural and religious requirements 1.4 Identify alternative processes and products for customers with cultural and religious requirements related to food production
2. Identify dietary requirements of customers	2.1 Identify a range of specific dietary requirements and their impact on food production 2.2 Identify food products that cater for specific dietary requirements 2.3 Assess the suitability of current food production methods and current food products against dietary requirements 2.4 Identify alternative processes and products for customers with dietary requirements related to food production
3. Identify requirements of customers with food-related allergies	3.1 Identify common food-related allergies 3.2 Conduct risk assessment of current products and processes against common food-related allergies 3.3 Identify food production procedures to avoid contamination with allergens

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"> <li>Interpret workplace and standard operating procedures relevant to job role</li> </ul>
Writing	<ul style="list-style-type: none"> <li>Record routine information on paper-based and electronic media</li> </ul>
Numeracy	<ul style="list-style-type: none"> <li>Calculate and estimate food quantities and pricing</li> </ul>
Navigate the world of work	<ul style="list-style-type: none"> <li>Apply workplace procedures to own role and responsibilities</li> <li>Identify skills, knowledge and experience required for performing own role in the workplace</li> <li>Ask questions to clarify understanding or seek further information</li> </ul>



Skill	Description
	<ul style="list-style-type: none"> <li>Participate in development of knowledge of cultural and religious practices and events that influence food production requirements</li> </ul>
Interact with others	<ul style="list-style-type: none"> <li>Communicate and report operational and safety information to relevant personnel</li> <li>Ask questions and listen carefully to gather, interpret or evaluate information, to clarify understanding or to seek further information</li> <li>Use modes of communication suitable to purpose to confirm understanding when conducting operational start-up and shutdown procedures</li> </ul>
Get the work done	<ul style="list-style-type: none"> <li>Make decisions relating to appropriate communication and relationship-building strategies</li> <li>Solve familiar and generally predictable cross-cultural problems and conflicts within workplace guidelines and using experience of past solutions</li> </ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPOPR3003 Identify cultural, religious and dietary considerations for food production	FDFOP3006A Identify cultural, religious and dietary considerations for food production	Updated to meet Standards for Training Packages	Equivalent unit

## Links

Companion Volumes, including Implementation Guides, are available at VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# Assessment Requirements for FBPOPR3003 Identify cultural, religious and dietary considerations for food production

## Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 1.0

## Performance Evidence

An individual demonstrating competency in this unit must satisfy all of the elements and performance criteria of this unit.

There must be evidence that the individual has identified cultural, religious and dietary considerations for food production on at least two separate occasions, including:

- using communication skills to interpret customer requests, and suggesting appropriate products that meet customer requirements
- accessing information on cultural, religious and dietary needs
- applying product knowledge to determine appropriate food products and processes to comply with cultural, religious or dietary considerations
- identifying common food-related allergens
- identifying procedures to avoid food contamination.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- ingredients of available food products which can impact on specific cultural, religious and dietary requirements of customers
- food production processes of products which can impact on specific cultural, religious and dietary requirements of customer including:
  - food safety principles and regulations
  - food safety hazards and risks
  - food safety program requirements
  - client conditions and associated needs and requirements
- specific dietary requirements, including:
  - coeliac
  - diabetes
  - food allergies

- food intolerances
- swallowing problems requiring food texture modification
- malnutrition
- different cultural requirements that impact on food production processes, including:
  - halal
  - Hindu
  - kosher
  - vegetarian
  - vegan
- additional dietary guidelines for specific populations, including older people and unwell people
- key health and legal consequences of failing to address special food requirements including:
  - drug–food interactions
  - allergic reactions
  - anaphylaxis
  - food sensitivity or intolerance reactions
  - choking.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - a workplace or an environment that accurately represents workplace conditions
- resources, equipment and materials:
  - production equipment appropriate to product type
  - materials/ingredients to meet recipe requirements
  - ingredient pricing information
  - personal protective clothing, equipment and material safety data sheets (MSDS)
  - cleaning procedures, materials and equipment
- specifications:
  - work procedures, including advice on relevant product requirements, safe work practices, food safety, quality and environmental requirements
  - recipes and customer specifications.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volumes, including Implementation Guides, are available at VETNet -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## FBPOPR3004 Set up a production or packaging line for operation

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

### Application

This unit of competency describes the skills and knowledge required to set up a production or packaging line for operation.

This unit applies to individuals who work under broad direction and take responsibility for their own work.

All work must be carried out to comply with workplace procedures according to state/territory health and safety regulations, legislation and standards that apply to the workplace.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

### Pre-requisite Unit

Nil

### Unit Sector

Operational (OPR)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare for line setup	1.1 Confirm materials are available to meet production requirements 1.2 Confirm availability of tools, equipment and related accessories according to job requirements 1.3 Select and fit personal protective equipment according to job requirements

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	1.4 Identify processing parameters and settings for production or packaging according to workplace procedures
2. Set-up the line for operation	2.1 Identify and confirm cleaning and maintenance requirements 2.2 Inspect equipment according to workplace procedures 2.3 Enter processing or packaging parameters and select or adjust machine settings according to workplace procedures 2.4 Check and adjust equipment performance 2.5 Conduct pre-start checks, adjust equipment performance and confirm equipment is ready and safe to operate, notifying relevant personnel of completion 2.6 Complete line setup to match production or packaging schedule and operating requirements 2.7 Complete records according to workplace requirements

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"> <li>Interpret workplace and standard operating procedures relevant to job role</li> <li>Interpret production requirements</li> </ul>
Numeracy	<ul style="list-style-type: none"> <li>Interpret production and process control indicators and data</li> </ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPOPR3004 Set up a production	FDFOP3002A Set up a production or	Updated to meet Standards for Training	Equivalent unit

or packaging line for operation	packaging line for operation	Packages Minor changes to Performance Criteria to clarify intent	
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## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## Assessment Requirements for FBPOPR3004 Set up a production or packaging line for operation

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

### Performance Evidence

An individual demonstrating competency must satisfy all of the elements and performance criteria in this unit.

There must be evidence that the individual has safely and effectively set up a production or packaging line on at least one occasion, in line with production schedule, including:

- conducting pre-start checks on machinery used for production to determine cleaning, maintenance and operation readiness
- determining production parameters and requirements
- setting up line according to production requirements
- taking corrective action in response to typical faults and inconsistencies
- completing workplace records and communicate line status with other personnel as required
- applying safe work practices and identifying hazards and controls.

### Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- operating principles of equipment and related accessories, including equipment adjustment points, range and location/alignment requirements of sensors and related feedback instruments, and status and purpose of guards
- operating capacities of equipment used in the work area, including different types of equipment and/or components by processing operations
- nature of set-up/changeover requirements, including product compatibility and related cleaning requirements, impact of variation in materials or product on set-up requirements, and equipment and/or attachment changeovers related to given products
- typical equipment faults and related causes, including signs and symptoms of faulty equipment and early warning signs of potential problems
- pre-start checks required by set-up/changeover



- related processes and personnel dependent on line set-up, and communication responsibilities
- isolation, lock-out and tag out procedures and responsibilities
- health and safety hazards and controls in the workplace
- procedures and responsibility for reporting equipment performance information
- operating principles of process control, including the relationship between control panels and systems and the physical equipment.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - skills must be demonstrated in a workplace setting or an environment that accurately represents a real workplace
- resources, equipment and materials:
  - personal protective equipment
  - production/packaging schedule and related advice on setup/changeover requirements
  - process/packaging equipment and related accessories and services
  - materials/consumables required of the process
  - hand tools
- specifications:
  - information on equipment capacity and operating parameters.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# FBPOPR3005 Operate interrelated processes in a production system

## Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

## Application

This unit of competency describes the skills and knowledge required to set up, operate, adjust and monitor interrelated processes in a production system.

This unit of competency describes the skills and knowledge required to set up, operate, adjust and monitor interrelated processes in a production system. A production system typically involves a series of interrelated processes that must be coordinated and concurrently operated to produce the required outcome.

This unit applies to individuals who have skills and knowledge the operational requirements of the production system for the industry in which it is applied. Individuals apply higher level planning and problem-solving skills, work under broad direction and take responsibility for their own work.

All work must be carried out to comply with workplace procedures according to state/territory health and safety regulations, legislation and standards that apply to the workplace.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

## Pre-requisite Unit

Nil

## Unit Sector

Operational (OPR)

## Elements and Performance Criteria

Elements	Performance Criteria
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<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare the production system for operation	<p>1.1 Confirm availability of equipment, materials and services according to workplace procedures</p> <p>1.2 Identify and confirm cleaning requirements and equipment status</p> <p>1.3 Select and fit personal protective equipment according to job requirements</p> <p>1.4 Enter processing/operating parameters and select or adjust machine settings according to workplace procedures</p> <p>1.5 Load or position materials, ingredients and/or product according to workplace procedures</p> <p>1.6 Conduct pre-start checks, adjust equipment performance and confirm equipment is ready and safe to operate</p>
2. Operate and monitor the production system	<p>2.1 Start up and operate and monitor the system and equipment for variation in operating conditions</p> <p>2.2 Identify, rectify and report out-of-specification product and process outcomes to maintain the process within specification</p> <p>2.3 Maintain the work area and report maintenance requirements according to workplace procedures</p> <p>2.4 Conduct work according to workplace and environmental procedures</p>
3. Hand over production system operation	<p>3.1 Maintain records according to workplace procedures</p> <p>3.2 Conduct handover according to workplace procedures</p> <p>3.3 Confirm process operators are properly informed of system and related equipment status at completion of handover</p>
4. Shut down the production system	<p>4.1 Identify the appropriate shutdown procedure</p> <p>4.2 Shut down the system according to workplace procedures</p> <p>4.3 Identify and report maintenance requirements</p>
5. Contribute to continuous improvement of the production system	<p>5.1 Review system performance against output plan/targets according to workplace procedures</p> <p>5.2 Identify and investigate opportunities for system improvement</p> <p>5.3 Develop and implement proposals for improvement within workplace planning arrangements, authority levels and according to workplace procedures</p>

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"><li>Interpret workplace and standard operating procedures relevant to job role</li><li>Interpret production requirements</li></ul>
Writing	<ul style="list-style-type: none"><li>Record operating, routine maintenance and shutdown information on paper-based and electronic media</li></ul>
Numeracy	<ul style="list-style-type: none"><li>Monitor and interpret production and process control indicators and data</li><li>Monitor supply and flow of materials to and from the process</li></ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPOPR3005 Operate interrelated processes in a production system	FDFOP3003A Operate interrelated processes in a production system	Updated to meet Standards for Training Packages  Minor changes to Performance Criteria to clarify intent	Equivalent unit

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# Assessment Requirements for FBPOPR3005 Operate interrelated processes in a production system

## Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

## Performance Evidence

An individual demonstrating competency must satisfy all of the elements and performance criteria in this unit.

There must be evidence that the individual has safely and effectively operated interrelated processes in a production system, on at least one occasion, including:

- conducting pre-start checks on production system components
- confirming machine set-up is ready to achieve production requirements
- applying safe work practices and identify hazards and controls
- selecting and fitting personal protective equipment (PPE)
- starting, operating, monitoring and adjusting process equipment throughout the system to achieve required quality outcomes
- identifying system problems and taking corrective action
- conducting operational handovers
- shutting down system
- identifying and investigating opportunities for operational improvements within areas of responsibility
- completing workplace records
- shutting down equipment according to workplace procedures.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- purpose and basic principles of the production system, including the system process flow, the interrelationships of each process to identify the impact of variation on related processes, and optimisation options
- basic operating principles of equipment and related accessories used by the system, including equipment adjustment points, status and purpose of guards, and range and location/alignment requirements of sensors and related feedback instruments

- operating capacities of equipment used in the system, including different types of equipment and/or components by processing/packaging operations
- related systems and responsibilities for interaction, including related production systems, services supply, packaging/warehousing, maintenance, laboratory/quality assurance and planning and scheduling
- product characteristics and common types of variation in materials and/or ingredients used, including the effect of variation on each stage of the system and scope to adjust or correct
- typical production related problems, including equipment faults, common causes and warning signs, incorrect or poor supply of materials, incorrect settings and poor operator control
- relevant procedures, specifications and operating parameters for the system and the individual processes
- isolation, lock-out and tag out procedures and responsibilities
- hazards, risks, controls and methods for monitoring processes within the system, including health and safety in the workplace, food safety, quality and environmental hazards and risks
- workplace system and approach to equipment maintenance
- process improvement procedures and related consultative arrangements
- troubleshooting procedures and problem-solving techniques
- communication responsibilities to inform related work areas/support functions and other shifts of operational status and production issues
- procedures and responsibility for reporting production and performance information.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - skills must be demonstrated in a workplace setting or an environment that accurately represents a real workplace
- resources, equipment and materials:
  - PPE
  - production system equipment and related accessories and services
  - materials/consumables required by the process
  - communication and recording systems and procedures
- specifications:
  - production schedule and related advice on system requirements
  - information on equipment capacity and operating parameters.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# FBPOPR3006 Operate interrelated processes in a packaging system

## Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

## Application

This unit of competency describes the skills and knowledge required to set up, operate, adjust and monitor interrelated processes in a packaging system.

This unit applies to individuals who work under broad direction and take responsibility for their own work.

All work must be carried out to comply with workplace procedures according to state/territory health and safety regulations, legislation and standards that apply to the workplace.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

## Pre-requisite Unit

Nil

## Unit Sector

Operational (OPR)

## Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare the packaging system for operation	1.1 Confirm equipment, materials and services are available to meet packaging requirements 1.2 Identify and confirm cleaning requirements and equipment status 1.3 Select and fit personal protective equipment according to job



Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	<p>requirements</p> <p>1.4 Enter processing/operating parameters and select or adjust machine settings according to workplace procedures</p> <p>1.5 Load or position product and/or packaging components and consumables according to workplace procedures</p> <p>1.6 Conduct pre-start checks, adjust equipment performance and confirm equipment is ready and safe to operate</p>
2. Operate and monitor the packaging system	<p>2.1 Start up and operate and monitor the system and equipment for variation in operating conditions</p> <p>2.2 Identify and report non-conformances according to workplace procedures</p> <p>2.3 Maintain the work area and report maintenance requirements</p> <p>2.4 Conduct work according to workplace environmental standards</p>
3. Hand over packaging system operation	<p>3.1 Maintain workplace records according to workplace procedures</p> <p>3.2 Conduct handover procedures</p> <p>3.3 Confirm process operators are properly informed of system and related equipment status at completion of handover</p>
4. Shut down the packaging system	<p>4.1 Identify the appropriate shutdown procedure</p> <p>4.2 Shut down the system</p> <p>4.3 Identify and report maintenance requirements according to workplace procedures</p>
5. Contribute to continuous improvement of the system	<p>5.1 Review system performance against output plan/targets</p> <p>5.2 Identify and investigate opportunities for system improvement</p> <p>5.3 Develop and implement proposals for improvement within workplace planning arrangements, authority levels and according to workplace procedures</p>

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"><li>Interpret workplace and standard operating procedures relevant to job role</li><li>Interpret production requirements</li></ul>
Writing	<ul style="list-style-type: none"><li>Record operating, routine maintenance and shutdown information on paper-based and electronic media</li></ul>
Numeracy	<ul style="list-style-type: none"><li>Monitor and interpret production and process control indicators and data</li><li>Monitor supply and flow of materials to and from the process</li></ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPOPR3006 Operate interrelated processes in a packaging system	FDFOP3004A Operate interrelated processes in a packaging system	Updated to meet Standards for Training Packages  Minor changes to Performance Criteria to clarify intent	Equivalent unit

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# Assessment Requirements for FBPOPR3006 Operate interrelated processes in a packaging system

## Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

## Performance Evidence

An individual demonstrating competency must satisfy all of the elements and performance criteria in this unit.

There must be evidence that the individual has safely and effectively operated interrelated processes in a packaging system on at least two separate occasions, including:

- setting and/or adjusting equipment to meet packaging requirements
- inspecting equipment condition to identify any signs of wear
- confirming selection of appropriate settings and/or related parameters
- ensuring that isolation or lock outs are cancelled
- confirming that equipment is clean and correctly configured for packaging requirements, positioning sensors and controls correctly
- ensuring any scheduled maintenance has been carried out
- confirming that all safety guards are in place and operational loading and/or positioning product, packaging components and consumables.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- purpose and basic principles of the packaging system, including:
  - the process flow and the interrelationships of each previous processes that can affect packaging outcomes, packaging technology, and packaging equipment components
- basic operating principles of equipment and related accessories used by the system, including:
  - equipment adjustment points, status and purpose of guards, and range and location/alignment requirements of sensors and related feedback instruments
- operating capacities of equipment used in the system, including different types of equipment and/or components by processing/packaging operations

- related systems and responsibilities for interaction, including related production and further packaging/storage stages, services supply, maintenance, laboratory/quality assurance and planning and scheduling
- technical knowledge of product/packaging characteristics and the main factors that impact on shelf-life
- typical packaging related problems, including equipment faults, common causes and warning signs, incorrect or poor supply of materials and finished product, incorrect settings and poor operator control
- relevant procedures, specifications and operating parameters for the system and the individual processes
- isolation, lock out and tag out procedures and responsibilities
- hazards, risks, controls and methods for monitoring processes within the system, including health and safety, food safety, quality and environmental hazards and risks in the workplace
- workplace system and approach to equipment maintenance
- process improvement procedures and related consultative arrangements
- troubleshooting procedures and problem-solving techniques
- communication responsibilities to inform related work areas/support functions and other shifts of operational status and production issues
- procedures and responsibility for reporting production and performance information.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - skills must be demonstrated in a workplace setting or an environment that accurately represents a real workplace
- resources, equipment and materials:
  - personal protective equipment
  - production schedule and related advice on system requirements
  - packaging system equipment and related accessories and services
  - product, packaging components and consumables by the process
  - communication and recording systems and procedures
- specifications:
  - information on equipment capacity and operating parameters.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## FBPOPR4001 Apply principles of statistical process control

### Modification History

Release	Comments
Release 1	This version released with the FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

### Application

This unit of competency describes the skills and knowledge required to collect statistical information and interpret data in order to inform work processes.

This unit applies to individuals who are required to collect, interpret and record data to inform work. This typically includes plotting data on run charts and statistical process control (SPC) charts; and identifying trends and variations according to given limits.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

### Pre-requisite Unit

Nil

### Unit Sector

Operational (OPR)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Collect statistical information	1.1 Identify data collection requirements and confirm with supervisor 1.2 Gather data using available collection equipment 1.3 Accurately record data to meet data collection requirements
2. Interpret data	2.1 Analyse data to identify variations and trends 2.2 Carry out calculations to determine unknown values

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	2.3 Determine corrective action requirements based on data 2.4 Document and store data according to workplace requirements

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Numeracy	<ul style="list-style-type: none"> <li>Use statistical analysis techniques to calculate, compare and manipulate data</li> </ul>
Writing	<ul style="list-style-type: none"> <li>Record data and present information in required format</li> </ul>
Get the work done	<ul style="list-style-type: none"> <li>Make decisions based on analysis of available data</li> <li>Use manual and computer-based methods to interpret data and identify trends</li> </ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPOPR4001 Apply principles of statistical process control	FDFOP2015A Apply principles of statistical process control	<p>Updated to meet Standards for Training Packages</p> <p>Unit code updated to reflect AQF level</p> <p>Minor changes to Performance Criteria to clarify intent.</p>	Equivalent unit

Code and title current version	Code and title previous version	Comments	Equivalence status
		Prerequisite removed.	

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# Assessment Requirements for FBPOPR4001 Apply principles of statistical process control

## Modification History

Release	Comments
Release 1	This version released with the FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

## Performance Evidence

An individual demonstrating competency in this unit must satisfy all of the elements and performance criteria of this unit.

There must be evidence that the individual has applied the principles of statistical process control to at least two different sets of data, including:

- identifying data needed for collection
- gathering and accurately recording required data
- applying statistical analysis techniques and identifying variations, trends and any necessary corrective actions
- presenting a range of statistical data in appropriate workplace format.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- data sampling methods, including the nature of the sample on which data is based, and the reasons for different sampling requirements that may apply in a given situation
- concept of variation, including the difference between common and special causes of variation, and consequent options for reducing variation and remaining within a given range
- the purpose and process of establishing targets and limits
- the concept of standard distribution/standard deviation
- methods used to interpret statistical data, including methods to determine the average, median and mean, and what these measures indicate
- a variety of calculations to determine unknown values
- using binomial theorem
- using variability and probability to estimate and interpret outcomes in both numerical and qualitative terms



- situations in which corrective action is required.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - skills must be demonstrated in a workplace setting or an environment that accurately represents a real workplace
- resources, equipment and materials:
  - statistical process control data
  - related data collection and analysis systems
  - calculator.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## FBPPBK2001 Operate a cooling and slicing process

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 1.0.

### Application

This unit of competency describes the skills and knowledge required to set up, operate, adjust and shut down a process to cool and slice cake baked on a band or belt. It does not apply to manual cutting of cake baked in a tin or pan.

The unit applies to individuals who work in a cake production environment under general supervision with some accountability for their own work. This includes identifying and providing solutions to a limited range of predictable problems relating to the operation and monitoring of a cooling and slicing process and associated equipment.

All work must be carried out to comply with workplace procedures, in accordance with State/Territory work health and safety, and food safety regulations, legislation and standards that apply to the workplace.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

### Pre-requisite Unit

Nil

### Unit Sector

Production baking (PBK)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare the cooling and cutting equipment	1.1 Read or listen to work instructions from supervisor and clarify where needed

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
and process for operation	1.2 Identify work health and safety hazards and report to supervisor 1.3 Wear appropriate personal protective equipment and ensure correct fit 1.4 Confirm availability of baked cake to meet production requirements 1.5 Identify and confirm cleaning and maintenance requirements have been met 1.6 Fit machine components and related attachments and adjust to meet operating and safety requirements 1.7 Select processing and operating parameters to meet safety and production requirements 1.8 Check and adjust equipment according to manufacturer instructions to ensure optimum performance 1.9 Carry out pre-start checks according to operator instructions
2. Operate and monitor the cooling and cutting process	2.1 Start and operate the cooling and cutting process according to workplace procedures 2.2 Monitor equipment to identify variation in operating conditions and report variations in equipment operation 2.3 Monitor the process to confirm that cake temperature and cut pieces meet specifications 2.4 Identify, report and rectify out-of-specification product and process outcomes 2.5 Conduct work and maintain a clean and tidy workplace according to workplace environmental and food safety procedures
3. Shut down the process	3.1 Complete the process safely according to workplace procedures 3.2 Identify and report maintenance requirements according to workplace procedures 3.3 Maintain workplace records accurately according to workplace procedures

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"> <li>Interpret text in work instructions and recognise workplace signage</li> </ul>
Numeracy	<ul style="list-style-type: none"> <li>Interpret symbols and numbers on temperature gauges and to calibrate equipment</li> <li>Use basic arithmetic to calculate quantities</li> <li>Measure size and weight of cake pieces against specifications</li> </ul>
Oral communication	<ul style="list-style-type: none"> <li>Participate in verbal exchanges to ask questions and convey workplace information</li> </ul>
Navigate the world of work	<ul style="list-style-type: none"> <li>Recognise and follow workplace requirements, including safety, quality, food safety and environmental requirements, associated with own role and area of responsibility</li> </ul>
Interact with others	<ul style="list-style-type: none"> <li>Follow accepted practices and protocols for reporting issues to supervisors</li> </ul>
Get the work done	<ul style="list-style-type: none"> <li>Follow clearly defined instructions to plan and assemble resources and sequence tasks required to operate cooling and slicing process</li> <li>Monitor processes and control points, identify routine problems related to own work or role and initiate standard procedures to resolve</li> <li>Use key functions and follow routine procedures for using digital technology and automated equipment</li> </ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPPBK2001 Operate a cooling and slicing process	FDFBK2001A Operate a cooling and slicing process	<p>Updated to meet Standards for Training Packages</p> <p>Minor changes to Performance Criteria for clarity</p>	Equivalent unit

## Links

Companion Volumes, including Implementation Guides, are available at VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## Assessment Requirements for FBPPBK2001 Operate a cooling and slicing process

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 1.0.

### Performance Evidence

An individual demonstrating competency must satisfy all of the elements and performance criteria in this unit.

There must be evidence that the individual has set up, operated, adjusted and shut down a cooling and slicing process for cake products on at least three separate occasions, including:

- accessing workplace information to identify cooling and cutting requirements
- selecting, fitting and using personal protective clothing and equipment
- confirming supply of cake and necessary materials and services
- conducting pre-start checks on machinery used for cooling and slicing cake including:
  - inspecting knife condition to identify any signs of wear
  - selecting appropriate settings to meet cake dimension requirements
  - cancelling isolation or lock outs
  - confirming equipment is clean and correctly configured for processing requirements
  - positioning sensors and controls correctly
  - ensuring any scheduled maintenance has been completed
  - confirming all safety guards are in place and operational
- confirming cooling and cutting equipment settings, including:
  - conveyor speed
  - cooling tunnel settings
  - guides
  - knife position
- starting, operating, monitoring and adjusting process equipment to achieve cake production specifications including:
  - cake temperature - temperature gauges
  - throughput
  - cut cake appearance, dimensions and weight
  - knife position and condition

- monitoring process control points and supply and flow of materials to and from the process
- taking corrective action in response to typical faults and inconsistencies in line with own role and responsibilities
- following work health and safety procedures, including:
  - responding to and reporting equipment failure
  - locating emergency stop functions on equipment
  - following isolation and lock out and tag out procedures to take process and related equipment off-line in preparation for cleaning and maintenance
- shutting down equipment safely according to workplace procedures
- completing workplace records
- applying environmental and food safety policies and procedures to work practices including:
  - maintaining work area to meet housekeeping standards
  - cleaning and sanitising equipment according to workplace procedures.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- purpose and basic principles of cake cooling and slicing process
- basic operating principles of cooling and slicing equipment and main components including:
  - status and purpose of guards
  - operating capacities and applications of equipment used in performance evidence
  - purpose and location of sensors and related feedback instrumentation
  - procedures to replace rotary knives
- types and safe operating procedures for cooling and slicing equipment, including:
  - conveyors
  - cooling tunnels
  - guides
  - rotary knives
  - guillotine knives
- typical equipment faults and related causes, including:
  - signs and symptoms of faulty equipment
  - early warning signs of potential problems
- basic operating principles of process control and relationship between control panels and systems, and cooling and slicing equipment
- key features of flow of cooling and slicing process and effect of outputs on downstream processes
- outcomes to be achieved by cooling and slicing process, including:
  - required temperature range for cake types

- scope to adjust product length to achieve a given weight
- operating requirements and parameters, and corrective action required where operation is outside specified operating parameters, including:
  - effect of ambient temperature on the cooling process
  - possible cause of condensation formation on product from the cooling tunnel
- methods used to monitor the cooling and slicing process, including:
  - inspecting, measuring and testing
  - inspection or test points (control points)
  - related procedures and recording requirements
- common causes of variation and corrective action required
- work health and safety hazards and controls, including:
  - risks associated with working with refrigerant and action required in the event of a leak
  - isolation, lock out and tag out procedures and responsibilities
- procedures for confirming services, including:
  - air
  - water
  - steam
- environmental and food safety issues and controls relevant to cooling and slicing process, including:
  - contamination and food safety risks
  - waste and rework collection and handling procedures
  - cleaning and sanitation procedures
- equipment shutdown requirements relevant to performance evidence, including:
  - emergency and routine shutdowns
  - procedures to follow in the event of a power outage
- procedures and responsibility for reporting production and performance information.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - a commercial bakery or an environment that accurately represents workplace conditions
- resources, equipment and material:
  - personal protective clothing and equipment
  - cooling and slicing equipment, including conveyors, cooling tunnels, rotary knives, guillotine knives and guides
  - cake for cooling and slicing
  - documentation or technology for recording information
  - cleaning procedures, materials and equipment



- specifications:
  - work instructions including control points and cooling and slicing processing parameters
  - production schedule for cooling and slicing process
  - information on equipment capacity and operating parameters
  - workplace procedures for cooling and slicing process
- relationships (internal and/or external):
  - workplace supervisor
- timeframes:
  - according to work requirements.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volumes, including Implementation Guides, are available at VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## FBPPBK2002 Operate a pastry forming and filling process

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 1.0.

### Application

This unit of competency describes the skills and knowledge required to set up, operate, adjust and shut down a process to deposit fillings into a pastry shell or onto a pastry sheet which is then topped or formed to product specifications.

This unit applies to individuals who work in a production baking environment under general supervision with some accountability for their own work. This includes identifying and providing solutions to a limited range of predictable problems relating to the operation and monitoring of a pastry forming and filling process and associated equipment.

All work must be carried out to comply with workplace procedures, in accordance with State/Territory work health and safety, and food safety regulations, legislation and standards that apply to the workplace.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

### Pre-requisite Unit

Nil

### Unit Sector

Production baking (PBK)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare the pastry forming and filling	1.1 Read or listen to work instructions from supervisor and clarify where needed

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
equipment and process for operation	1.2 Identify work health and safety hazards and report to supervisor 1.3 Wear appropriate personal protective equipment and ensure correct fit 1.4 Confirm availability of materials able to meet production requirements 1.5 Identify and confirm cleaning and maintenance requirements have been met 1.6 Fit machine components and related attachments and adjust to meet operating and safety requirements 1.7 Select processing and operating parameters to meet safety and production requirements 1.8 Check and adjust equipment according to manufacturer instructions to ensure optimum performance 1.9 Carry out pre-start checks according to operator instructions
2. Operate and monitor the pastry forming and filling process	2.1 Start the pastry forming and filling process according to workplace procedures 2.2 Monitor equipment to identify variation in operating conditions and report variations in equipment operation 2.3 Monitor the process to confirm that product meets specifications 2.4 Identify, report and rectify out-of-specification product and process outcomes 2.5 Conduct work and maintain a clean and tidy workplace according to workplace environmental and food safety procedures
3. Shut down the process	3.1 Complete the process safely according to workplace procedures 3.2 Identify and report maintenance requirements according to workplace procedures 3.3 Maintain workplace records accurately according to workplace procedures

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"> <li>Interpret text in work instructions and recognise workplace signage</li> </ul>
Numeracy	<ul style="list-style-type: none"> <li>Interpret symbols and numbers to calibrate equipment and set process parameters</li> <li>Use basic arithmetic to calculate quantities</li> <li>Measure size and weight of pastry and fillings against specifications</li> </ul>
Oral communication	<ul style="list-style-type: none"> <li>Participate in verbal exchanges to ask questions and convey workplace information</li> </ul>
Navigate the world of work	<ul style="list-style-type: none"> <li>Recognise and follow workplace requirements, including safety, quality, food safety and environmental requirements, associated with own role and area of responsibility</li> </ul>
Interact with others	<ul style="list-style-type: none"> <li>Follow accepted practices and protocols for reporting issues to supervisors</li> </ul>
Get the work done	<ul style="list-style-type: none"> <li>Follow clearly defined instructions to plan and assemble resources and sequence tasks to operate a pastry forming and filling process</li> <li>Monitor processes and control points, identify routine problems related to own work or role and initiate standard procedures to resolve</li> <li>Use key functions and follow routine procedures for using digital technology and automated equipment</li> </ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPPBK2002 Operate a pastry forming and filling process	FDFBK2002A Operate a pastry forming and filling process	<p>Updated to meet Standards for Training Packages</p> <p>Minor changes to performance criteria for clarity</p>	Equivalent unit

## Links

Companion Volumes, including Implementation Guides, are available at VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## Assessment Requirements for FBPPBK2002 Operate a pastry forming and filling process

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 1.0.

### Performance Evidence

An individual demonstrating competency must satisfy all of the elements and performance criteria in this unit.

There must be evidence that the individual has set up, operated, adjusted and shut down a pastry forming and filling process on at least three occasions, including:

- accessing workplace information to identify pastry forming and filling processing requirements
- selecting, fitting and using personal protective clothing and equipment
- confirming supply and condition of necessary materials and services including:
  - transfer of fillings and pastry to the production line to meet production requirements
  - pastry types and fillings match product specifications
  - availability of tin spray, water and egg yolk spray
  - suitability of rework pastry
- conducting pre-start checks on machinery used for pastry forming and filling including:
  - inspecting equipment condition to identify any signs of wear
  - selecting appropriate settings and/or related parameters
  - cancelling isolation or lock outs
  - confirming equipment is clean and correctly configured for pastry forming and filling processing
  - positioning sensors and controls correctly
  - confirming scheduled maintenance has been carried out
  - ensuring all safety guards are in place and operational
  - checking trays are available and positioned
- starting, operating, monitoring and adjusting pastry forming and filling process equipment to achieve production specifications including:
  - pastry thickness
  - alignment of deposited filling in relation to pastry sheet or shell
  - amount and/or rate of filling deposited

- product weight
- enclosure of pastry product by forming, rolling or covering with a pastry top
- application of toppings and finishes according to production schedule
- appearance (size and shape)
- monitoring supply and flow of materials to and from the pastry forming and filling process and equipment operation to confirm process remains within specification
- taking corrective action in response to typical faults and out-of-specification results in line with own role and responsibilities
- following work health and safety procedures including:
  - responding to and reporting equipment failure
  - locating emergency stop functions on equipment
  - following isolation and lock out and tag out procedures to take pastry forming and filling process and related equipment off-line in preparation for cleaning and maintenance
- shutting down equipment safely according to workplace procedures
- completing workplace records
- applying environmental and food safety policies and procedures to work practices including:
  - maintaining work area to meet housekeeping standards
  - cleaning and sanitising equipment according to workplace procedures.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- purpose and basic principles of the pastry forming and filling process
- types of equipment, including:
  - filling equipment
  - depositing equipment forming equipment
  - weighing equipment
  - trays and tin
  - rework bins
  - hoppers
  - spike rollers and cutter
  - shakers and topping equipment
- types of fillings:
  - sweet
  - savoury
  - hot
  - cold

- procedures for monitoring supply and flow of materials to and from the pastry forming and filling process and equipment operation to confirm process remains within specification
- basic operating principles of pastry forming and filling equipment, including:
  - main equipment components and attachments
  - status and purpose of guards
  - operating capacities and applications of equipment used in performance evidence
  - purpose and location of sensors and related feedback instrumentation
  - procedures for selecting and fitting appropriate filler heads and/or finishing attachments
- typical equipment faults and related causes, including:
  - recognition of signs and symptoms of faulty equipment
  - early warning signs of potential problems
- basic operating principles of process control, including the relationship between control panels and systems and pastry forming and filling equipment
- key features of flow of the pastry forming and filling process and the effect of outputs on customer satisfaction and downstream processes, including freezing or baking
- pastry forming and filling process specifications, procedures and operating parameters, including:
  - procedures for preparing fillings, operating the depositing process, and operating closing (lidding) and finishing
  - quality requirements of materials and ingredients and effect of variation on pastry forming and filling process performance
  - quality standards required of the filled product
- operating requirements and parameters and corrective action required where operation is outside specified operating parameters
- methods used to monitor the pastry forming and filling production process, including:
  - inspecting, measuring and testing as required by the process
  - inspection or test points (control points) in the process
  - related procedures and recording requirements
- common causes of variation and corrective action required
- work health and safety hazards and controls, including:
  - awareness of the limitations of personal protective equipment relevant to the pastry forming and filling process
  - isolation, lock out and tag out procedures and responsibilities
- equipment and process shut down requirements, including:
  - emergency and routine shutdowns
  - procedures to follow in the event of a power outage
- procedures and responsibility, including:
  - pastry forming and filling process changeover
  - reporting production and performance information



- environmental and food safety issues and controls relevant to pastry forming and filling process, including:
  - contamination risks and corrective action required
  - waste and rework collection and handling procedures
  - cleaning and sanitation procedures.

## Assessment Conditions

Assessment of this unit of competency must take place under the following conditions:

- physical conditions:
  - a workplace or an environment that accurately represents workplace conditions
- resources, equipment and material:
  - personal protective clothing and equipment
  - pastry forming and filling equipment
  - filling ingredients and pastry to be filled and formed
  - documentation or technology for recording information
  - cleaning procedures, materials and equipment
- specifications:
  - work instructions, including control points and pastry forming and filling production processing parameters
  - production schedule and recipe and batch specifications for pastry products
  - information on equipment capacity and operating parameters
  - workplace procedures for pastry forming and filling production process
- relationships (internal and/or external):
  - workplace supervisor
- timeframes:
  - according to work requirements.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volumes, including Implementation Guides, are available at VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## FBPPBK2003 Manufacture rye crisp breads

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 1.0.

### Application

This unit of competency describes the skills and knowledge required to set up, operate, adjust and shut down a rye crisp breads manufacturing process.

This unit applies to individuals who work in a baking production environment under general supervision with some accountability for their own work. This includes identifying and providing solutions to a limited range of predictable problems relating to the operation and monitoring of machines and equipment used in a crisp bread manufacturing process.

All work must be carried out to comply with workplace procedures, in accordance with State/Territory work health and safety, and food safety regulations, legislation and standards that apply to the workplace.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

### Pre-requisite Unit

Nil

### Unit Sector

Production baking (PBK)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare the rye crisp bread manufacturing equipment and process	1.1 Read or listen to work instructions from supervisor and clarify where needed

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
for operation	1.2 Identify work health and safety hazards and report to supervisor 1.3 Wear appropriate personal protective equipment and ensure correct fit 1.4 Confirm availability of materials to meet production requirements 1.5 Identify and confirm cleaning and maintenance requirements have been met 1.6 Fit machine components and related attachments and adjust to meet operating and safety requirements 1.7 Select processing and operating parameters to meet safety and production requirements 1.8 Check and adjust equipment according to manufacturer instructions to ensure optimum performance 1.9 Carry out pre-start checks according to operator instructions
2. Operate and monitor rye crisp bread manufacturing process	2.1 Start the rye crisp bread manufacturing process according to workplace procedures 2.2 Monitor equipment to identify variation in operating conditions and report variations in equipment operation 2.3 Monitor the process to confirm that product meets specifications 2.4 Identify, report and rectify out-of-specification product and process outcomes 2.5 Conduct work and maintain a clean and tidy workplace according to workplace environmental and food safety procedures
3. Shut down the process	3.1 Complete the process safely according to workplace procedures 3.2 Identify and report maintenance requirements according to workplace procedures 3.3 Maintain workplace records accurately according to workplace procedures

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"> <li>Interpret text in work instructions and recognise workplace signage</li> </ul>
Numeracy	<ul style="list-style-type: none"> <li>Interpret symbols and numbers to calibrate equipment</li> <li>Use basic arithmetic to calculate quantities of dough and slurry</li> <li>Measure size and weight of rye crisp breads against specifications</li> </ul>
Oral communication	<ul style="list-style-type: none"> <li>Participate in verbal exchanges to ask questions and convey workplace information</li> </ul>
Navigate the world of work	<ul style="list-style-type: none"> <li>Recognise and follow workplace requirements, including safety, quality, food safety and environmental requirements, associated with own role and area of responsibility</li> </ul>
Interact with others	<ul style="list-style-type: none"> <li>Follow accepted practices and protocols for reporting issues to supervisors</li> </ul>
Get the work done	<ul style="list-style-type: none"> <li>Follow clearly defined instructions to plan and assemble resources, and sequence tasks to manufacture rye crisp breads</li> <li>Monitor processes and control points, identify routine problems related to own work or role and initiate standard procedures to resolve</li> <li>Use key functions and follow routine procedures for using digital technology and automated equipment</li> </ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPPBK2003 Manufacture rye crisp breads	FDFBK2003A Manufacture rye crisp breads	<p>Updated to meet Standards for Training Packages</p> <p>Minor changes to performance criteria for clarity</p>	Equivalent unit

## Links

Companion Volumes, including Implementation Guides, are available at VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# Assessment Requirements for FBPPBK2003 Manufacture rye crisp breads

## Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 1.0.

## Performance Evidence

An individual demonstrating competency must satisfy all of the elements and performance criteria in this unit.

There must be evidence that the individual has set up, operated, adjusted and shut down a rye crisp breads manufacturing process on at least three separate occasions, including:

- accessing workplace information to identify rye crisp breads manufacturing requirements
- selecting, fitting and using personal protective equipment
- confirming supply of necessary materials and services, including confirming slurry quality, quantity, temperature and degree of aeration
- conducting pre-start checks, including:
  - inspecting equipment condition to identify any signs of wear
  - selecting appropriate settings and/or related parameters
  - cancelling isolation or lock outs
  - confirming that equipment is clean and correctly configured for processing requirements
  - positioning sensors and controls correctly
  - ensuring scheduled maintenance has been carried out
  - confirming that all safety guards are in place and operational
- confirming settings, including:
  - ovens and cutter settings for product type
  - web speed settings
  - depositing rate settings
  - flour (dusting) process settings
  - docking roller adjusted for product type
- starting, operating, monitoring and adjusting rye crisp breads manufacturing equipment to achieve production specification, including:
  - slurry volume, weight and density
  - biscuit size (width, length and thickness)

- biscuit texture, colour and weight
- biscuit moisture level
- clean, even break or cut
- using process control systems, monitoring control points and conducting inspections as required to confirm process remains within specification and ensuring that system has reached specified temperature
- monitoring supply and flow of materials to and from the rye crisp breads manufacturing process
- taking corrective action in response to out-of-specification results in line with own role and responsibilities
- following work health and safety procedures, including:
  - responding to and/or reporting equipment failure
  - locating emergency stop functions on equipment
  - following isolation and lock out and tag out procedures
- shutting down or taking equipment off line safely according to workplace procedures
- completing workplace records
- applying environmental and food safety policies and procedures to work practices including:
  - maintaining work area to meet housekeeping standards
  - cleaning and sanitising equipment according to workplace procedures.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- purpose and basic principles of each stage of the rye crisp breads manufacturing process
- basic operating principles of equipment, including:
  - main equipment components
  - status and purpose of guards
  - equipment operating capacities and applications
  - purpose and location of sensors and related feedback instrumentation
- typical equipment faults and related causes, including signs and symptoms of faulty equipment, loss of power, and early warning signs of potential problems
- the flow of the rye crisp breads manufacturing process and the effect of outputs on downstream processes
- basic operating principles of process control, where relevant, including the relationship between control panels and systems and the rye crisp bread manufacturing equipment
- specifications and quality characteristics to be achieved by the rye crisp breads manufacturing process, including:
  - quality requirements of materials and effect of variation on process performance
  - effect of slurry temperature on its ability to hold air
  - effect of docking roller on baking process

- changes which occur in product during processing
- operating requirements and parameters and corrective action required where operation is outside specified operating parameters
- methods used to monitor the rye crisp breads manufacturing process, including:
  - inspecting, measuring and testing as required by the crisp bread manufacturing process
  - inspection or test points (control points) in the process
  - related procedures and recording requirements
- common causes of variation and corrective action required
- work health and safety hazards and controls, including:
  - work isolation, lock out and tag out procedures and responsibilities
  - requirements of different shut downs
  - emergency and routine shutdowns
  - procedures to follow in the event of a power outage
- procedures and responsibility for reporting production and performance information
- environmental and food safety issues and controls relevant to the rye crisp breads manufacturing process, including:
  - waste and rework collection and handling procedures
  - contamination and food safety risks
  - cleaning and sanitation procedures.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - commercial bakery or an environment that accurately represents workplace conditions
- resources, equipment and material:
  - cleaning procedures, materials and equipment
  - personal protective clothing and equipment
  - depositing, baking, cutting, stacking and related equipment for rye crisp bread manufacturing
  - documentation or technology for recording information
- specifications:
  - work instructions including control points and rye crisp breads processing parameters
  - production schedule and recipe and batch specifications for rye crisp breads
  - dough, mix and slurry to meet production requirements
  - information on equipment capacity and operating parameters
  - workplace procedures for operating rye crisp bread manufacturing process
  - relationships (internal and/or external):
    - workplace supervisor
- timeframes:
  - according to work requirements.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education

## **Links**

Companion Volumes, including Implementation Guides, are available at VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>



## FBPPBK2004 Manufacture wafer products

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 1.0.

### Application

This unit of competency describes the skills and knowledge required to set up, operate, adjust and shut down a wafer products manufacturing process.

This unit applies to individuals who work in a baking production environment under general supervision with some accountability for their own work. This includes identifying and providing solutions to a limited range of predictable problems relating to the operation and monitoring of machines and equipment used in the wafer manufacturing process.

All work must be carried out to comply with workplace procedures, in accordance with State/Territory work health and safety, and food safety regulations, legislation and standards that apply to the workplace.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

### Pre-requisite Unit

Nil

### Unit Sector

Production baking (PBK)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare the wafer process for operation	1.1 Read or listen to work instructions from supervisor and clarify where needed

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	1.2 Identify work health and safety hazards and report to supervisor 1.3 Wear appropriate personal protective equipment and ensure correct fit 1.4 Confirm availability of materials to meet production requirements 1.5 Identify and confirm cleaning and maintenance requirements have been met 1.6 Fit machine components and related attachments and adjust to meet operating requirements 1.7 Select processing and operating parameters to meet safety and production requirements 1.8 Check equipment and adjust according to manufacturer instructions to ensure optimum performance 1.9 Carry out pre-start checks according to operator instructions
2. Operate and monitor the wafer process	2.1 Start the wafer products manufacturing process according to workplace procedures 2.2 Monitor equipment to identify variation in operating conditions and report variations in equipment operation 2.3 Monitor the process to confirm that product meets specifications 2.4 Identify, rectify and report out-of-specification product and process outcomes 2.5 Conduct work and maintain a clean and tidy workplace according to workplace environmental guidelines
3. Shut down the process	3.1 Identify the appropriate shutdown procedure and implement 3.2 Identify and report maintenance requirements 3.3 Maintain workplace records accurately according to workplace procedures

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"> <li>Interpret text in work instructions and production schedule and recognise workplace signage</li> </ul>
Numeracy	<ul style="list-style-type: none"> <li>Interpret symbols and numbers to calibrate equipment and set oven temperatures and processing parameters</li> <li>Use basic arithmetic to calculate quantities of wafer batter</li> <li>Measure wafer width, length and thickness against specifications</li> </ul>
Oral communication	<ul style="list-style-type: none"> <li>Participate in verbal exchanges to ask questions and convey workplace information</li> </ul>
Navigate the world of work	<ul style="list-style-type: none"> <li>Recognise and follow workplace requirements, including safety, quality, food safety and environmental requirements, associated with own role and area of responsibility</li> </ul>
Interact with others	<ul style="list-style-type: none"> <li>Follow accepted practices and protocols for reporting issues to supervisors</li> </ul>
Get the work done	<ul style="list-style-type: none"> <li>Follow clearly defined instructions to plan and assemble resources and sequence tasks to manufacture wafer products</li> <li>Monitor processes and control points, identify routine problems related to own work or role, and initiate standard procedures to resolve</li> <li>Use key functions and follow routine procedures for using digital technology and automated equipment</li> </ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPPBK2004 Manufacture wafer products	FDFBK2004A Manufacture wafer products	<p>Updated to meet Standards for Training Packages</p> <p>Minor changes to performance criteria for clarity</p>	Equivalent unit

## Links

Companion Volumes, including Implementation Guides, are available at VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# Assessment Requirements for FBPPBK2004 Manufacture wafer products

## Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 1.0.

## Performance Evidence

An individual demonstrating competency must satisfy all of the elements and performance criteria in this unit.

There must be evidence that the individual has set up, operated, adjusted and shut down a wafer manufacturing process on at least three separate occasions, including:

- accessing workplace information to identify wafer production requirements
- selecting, fitting and using personal protective equipment
- confirming supply of necessary materials and services, including confirming quality, quantity and temperature of batter
- conducting pre-start checks, including:
  - inspecting equipment condition to identify any signs of wear
  - selecting appropriate settings and/or related parameters
  - cancelling isolation or lock outs
  - confirming that related equipment is clean and correctly configured for processing requirements
  - positioning sensors and controls correctly
  - ensuring scheduled maintenance has been carried out
  - confirming that all safety guards are in place and operational
- ensuring correct batter is supplied and confirm settings, including:
  - wafer plates are selected for product type
  - oven settings for product type
  - web/chain speed settings
  - depositing rate settings
- starting, operating, monitoring and adjusting process equipment to achieve required outcomes, including monitoring control points and conducting inspections as required to confirm process remains within specification, including:
  - wafer size (width, length and thickness)
  - wafer texture, colour and weight

- wafer moisture level
- using process control systems according to workplace procedures
- monitoring supply and flow of materials to and from the process
- taking corrective action in response to out-of-specification results in line with own role and responsibilities
- following work health and safety procedures, including:
  - responding to and/or reporting equipment failure
  - locating emergency stop functions on equipment
  - shutting down equipment in response to an emergency situation
  - following isolation and lock out/tag out procedures to take process and related equipment off-line in preparation for cleaning and/or maintenance within level of responsibility
- completing workplace records as required
- applying environmental and food safety policies and procedures to work practices, including:
  - maintaining work area to meet housekeeping standards
  - cleaning and sanitising equipment according to workplace procedures.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- purpose and basic principles of each stage of the wafer manufacturing process
- basic operating principles of equipment, including:
- main equipment components
  - status and purpose of guards
  - equipment operating capacities and applications
  - purpose and location of sensors and related feedback instrumentation
- typical equipment faults and related causes, including signs and symptoms of faulty equipment, loss of power, and early warning signs of potential problems
- the flow of the wafer manufacturing process and the effect of outputs on downstream processes
- basic operating principles of process control, including the relationship between control panels and systems and wafer products manufacturing equipment
- specifications and quality characteristics to be achieved by the wafer manufacturing process, including:
  - quality requirements of materials
  - effect of variation on wafer manufacturing process performance
  - changes which occur in product during processing
- operating requirements and parameters and corrective action required where operation is outside specified operating parameters
- methods used to monitor the wafer manufacturing process, including:

- inspecting, measuring and testing as required by the wafer products manufacturing process
- inspection or test points (control points) in the process
- related procedures and recording requirements
- common causes of variation and corrective action required
- work health and safety hazards and controls, including:
  - routine shut down for wafer manufacturing process
  - emergency shut downs
  - procedures to follow in the event of a power outage
  - isolation, lock out and tag out procedures and responsibilities
- procedures and responsibility for reporting production and performance information
- environmental and food safety issues and controls relevant to the wafer manufacturing process, including:
  - waste and rework collection and handling procedures
  - contamination and food safety risks
  - cleaning and sanitation procedures.

## Assessment Conditions

Assessment of this unit of competency must take place under the following conditions:

- physical conditions:
  - a commercial bakery or an environment that accurately represents workplace conditions
- resources, equipment and material:
  - cleaning procedures, materials and equipment
  - personal protective clothing and equipment
  - depositing, baking, and related equipment used in wafer production
  - wafer plates
  - batter to meet production requirements
  - documentation or technology for recording information
- specifications:
  - work instructions including control points and wafer manufacturing processing parameters
  - production schedule and recipe and batch specifications for wafer products
  - workplace procedures for operating wafer products manufacturing process
  - information on equipment capacity and operating parameters
- relationships (internal and/or external):
  - workplace supervisor
- timeframes:
  - according to work requirements.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volumes, including Implementation Guides, are available at VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## FBPPBK2005 Operate a doughnut making process

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 1.0.

### Application

This unit of competency describes the skills and knowledge required to set up, operate, adjust and shut down the doughnut manufacturing process.

This unit applies to individuals who work in a baking production environment under general supervision with some accountability for their own work. This includes identifying and providing solutions to a limited range of predictable problems relating to the operation and monitoring of doughnut production.

All work must be carried out to comply with workplace procedures, in accordance with State/Territory work health and safety, and food safety regulations, legislation and standards that apply to the workplace.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

### Pre-requisite Unit

Nil

### Unit Sector

Production baking (PBK)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare the manufacturing equipment and process	1.1 Read or listen to work instructions from supervisor and clarify where needed



Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
for operation	1.2 Identify work health and safety hazards and report to supervisor 1.3 Wear appropriate personal protective equipment and ensure correct fit 1.4 Confirm availability of materials to meet production requirements 1.5 Identify and confirm cleaning and maintenance requirements have been met 1.6 Fit machine components and related attachments and adjust to meet operating requirements 1.7 Select processing and operating parameters to meet safety and production requirements 1.8 Check and adjust equipment according to manufacturer instructions to ensure optimum performance 1.9 Carry out pre-start checks according to operator instructions
2. Operate and monitor the doughnut manufacturing process	2.1 Start the doughnut-making process according to workplace procedures 2.2 Monitor equipment to identify variation in operating conditions and report variations in equipment operation 2.3 Monitor the process to confirm that product meets specifications 2.4 Identify, rectify and report out-of-specification product and process outcomes 2.5 Use equipment to apply topping and fillings according to production specifications and operator instructions 2.6 Conduct work and maintain a clean and tidy workplace according to workplace environmental guidelines
3. Shut down the process	3.1 Complete the process safely according to workplace procedures 3.2 Identify and report maintenance requirements 3.3 Maintain workplace records accurately according to workplace procedures

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"> <li>Interpret text in work instructions and production schedule and recognise workplace signage</li> </ul>
Numeracy	<ul style="list-style-type: none"> <li>Interpret symbols and numbers to calibrate equipment and check frying temperatures</li> <li>Use basic arithmetic to calculate quantities of doughnut mix, oil, glazing and other products needed for production</li> </ul>
Oral communication	<ul style="list-style-type: none"> <li>Participate in verbal exchanges to ask questions and convey workplace information</li> </ul>
Navigate the world of work	<ul style="list-style-type: none"> <li>Recognise and follow workplace requirements, including safety, quality, food safety and environmental requirements, associated with own role and area of responsibility</li> </ul>
Interact with others	<ul style="list-style-type: none"> <li>Follow accepted practices and protocols for reporting issues to supervisors</li> </ul>
Get the work done	<ul style="list-style-type: none"> <li>Follow clearly defined instructions to plan and assemble resources and sequence tasks required to produce doughnuts</li> <li>Monitor processes and control points, identify routine problems related to own work or role, and initiate standard procedures to resolve</li> <li>Use key functions and follow routine procedures for using digital technology and automated equipment</li> </ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPPBK2005 Operate a doughnut making process	FDFBK2005A Operate a doughnut making process	<p>Updated to meet Standards for Training Packages</p> <p>Minor changes to performance criteria for clarity</p>	Equivalent unit

## Links

Companion Volumes, including Implementation Guides, are available at VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# Assessment Requirements for FBPPBK2005 Operate a doughnut making process

## Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 1.0.

## Performance Evidence

An individual demonstrating competency must satisfy all of the elements and performance criteria in this unit.

There must be evidence that the individual has set up, operated, adjusted and shut down a doughnut-making process on at least three occasions, including:

- accessing workplace information to identify doughnut manufacturing requirements
- selecting, fitting and using personal protective equipment
- confirming supply of necessary materials and services
- confirming condition of materials, including confirming flour and water temperature, flour type and oil type
- conducting pre-start checks, including:
  - inspecting equipment condition to identify any signs of wear
  - selecting appropriate settings and/or related parameters
  - cancelling isolation or lock outs
  - confirming that equipment is clean and correctly configured for processing requirements
  - positioning sensors and controls correctly
  - ensuring any scheduled maintenance has been carried out
  - confirming that all safety guards are in place and operational
- conducting pre-start checks for equipment, including:
  - doughnut mixing and forming equipment
  - deep frying equipment
  - cooling tunnels/spirals
- starting, operating, monitoring and adjusting process equipment to achieve required outcomes, including monitoring:
  - materials transfer prior to commencing mixing
  - mixing parameters for water and flour temperature
  - sequence of ingredient addition and mixing times

- forming parameters, including air pressure to maintain weight of doughnut
- proving parameters - humidity and temperature within prover and time
- frying parameters - oil temperature, appearance of cooked doughnuts and time
- operating finishing/filling equipment according to workplace procedures, including:
  - preparing decorating ingredients
  - mixing and heating, crushing, cutting or sieving toppings
- monitoring temperature of toppings, spread/application of toppings and glazes, jam/filling placement and quantity and appearance of finished product
- using process control systems according to workplace procedures
- taking corrective action in response to out-of-specification results in line with own role and responsibilities
- following work health and safety procedures including:
  - responding to and/or reporting equipment failure
  - locating emergency stop functions on equipment
  - following isolation and lock out or tag out procedures to take process and related equipment off-line in preparation for cleaning and/or maintenance
- completing workplace records
- applying environmental and food safety policies and procedures to work practices, including:
  - maintaining work area to meet housekeeping standards
  - cleaning and sanitising equipment according to workplace procedures.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- purpose and basic principles of the doughnut manufacturing process
- stages and requirements of each processing stage in doughnut manufacture, including:
  - mixing
  - proving
  - frying
  - filling
  - finishing
- role of main ingredients, including:
  - flour
  - yeast
  - water
  - ice
  - oil
  - glazes
  - topping

- pre-mixes
- types of equipment, including:
  - doughnut mixing and forming equipment
  - filling equipment
  - finishing equipment
  - deep frying equipment, gas and electric
  - cooling tunnels and spirals
  - weigh scales
  - hoppers
  - forming equipment
  - cutters
  - injectors
  - provers
  - enrobers
- basic operating principles of equipment, including:
  - main equipment components
  - status and purpose of guards
  - equipment operating capacities and applications
  - purpose and location of sensors and related feedback instrumentation
- starting, operating, monitoring and adjusting process equipment to achieve required outcomes
- typical equipment faults and related causes, including signs and symptoms of faulty equipment, loss of power, and early warning signs of potential problems
- basic operating principles of process control, including the relationship between control panels and systems and the doughnut production equipment
- key features of the flow of the doughnut manufacturing process and the effect of outputs on customer satisfaction and downstream processes, including packaging
- quality requirements of materials and effect of variation on doughnut manufacturing process performance
- quality characteristics to be achieved by the finished doughnut
- process specifications, procedures and operating parameters, including procedures for adjusting water temperature to compensate for atmospheric conditions
- operating requirements and parameters and corrective action required where results are out-of-specification operating parameters
- methods used to monitor the doughnut manufacturing process, including:
  - inspecting, measuring and testing
  - inspection or test points (control points) in the process
  - related procedures and recording requirements
  - temperature of toppings
  - spread and application of toppings and glazes
  - placement of jams and fillings

- quantity and appearance of finished product
- common causes of variation and corrective action required
- doughnut-finishing requirements, including:
  - preparation methods
  - monitoring of parameters
  - application of finishings
  - quality requirements
- work health and safety hazards and controls, including:
  - limitations of personal protective equipment
  - routine shut down requirements
  - emergency shut down procedures
  - procedures to follow in the event of a power outage
  - isolation, lock out and tag out procedures and responsibilities
- procedures and responsibility for reporting production and performance information
- environmental and food safety issues and controls relevant to the doughnut manufacturing process, including:
  - waste and rework collection and handling
  - contamination and food safety risks
- cleaning and sanitation procedures.

## Assessment Conditions

Assessment of this unit of competency must take place under the following conditions:

- physical conditions:
  - a workplace or an environment that accurately represents workplace conditions
- resources, equipment and material:
  - personal protective clothing and equipment
  - doughnut mixing, forming, proving, injecting and frying equipment, and glazing and topping application equipment
  - doughnut ingredients, frying oil and glazing, or toppings and fillings to meet production requirement
  - documentation or technology for recording information
  - cleaning procedures, materials and equipment
- specifications:
  - work instructions including control points and doughnut production processing parameters
  - production schedule and recipe and batch specifications for doughnut products
  - information on equipment capacity and operating parameters
  - workplace procedures for doughnut production process
- relationships (internal and/or external):
  - workplace supervisor

- timeframes:
  - according to work requirements.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## **Links**

Companion Volumes, including Implementation Guides, are available at VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>



# FBPPBK2006 Operate a griddle production process

## Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 1.0.

## Application

This unit of competency describes the skills and knowledge required to set up, operate, adjust and shut down a griddle production process.

This unit applies to individuals who work in a production baking environment under general supervision with some accountability for their own work. This includes identifying and providing solutions to a limited range of predictable problems relating to the operation and monitoring of a griddle production process.

All work must be carried out to comply with workplace procedures, in accordance with State/Territory work health and safety, and food safety regulations, legislation and standards that apply to the workplace.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

## Pre-requisite Unit

Nil

## Unit Sector

Production baking (PBK)

## Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare the griddle product manufacturing equipment and process	1.1 Read or listen to work instructions from supervisor and clarify where needed

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
for operation	1.2 Identify work health and safety hazards and report to supervisor 1.3 Wear appropriate personal protective equipment and ensure correct fit 1.4 Confirm availability of materials to meet production requirements 1.5 Identify and confirm cleaning and maintenance requirements have been met 1.6 Fit machine components and related attachments and adjust to meet operating requirements 1.7 Select processing and operating parameters to meet safety and production requirements 1.8 Check and adjust equipment according to manufacturer instructions to ensure optimum performance 1.9 Carry out pre-start checks according to operator instructions
2. Operate and monitor the griddle product manufacturing process	2.1 Start the griddle product manufacturing process according to workplace procedures 2.2 Monitor equipment to identify variation in operating conditions and report variations in equipment operation 2.3 Monitor the process to confirm that product meets specifications 2.4 Identify, rectify and report out-of-specification product and process outcomes 2.5 Conduct work and maintain a clean and tidy work area according to workplace environmental guidelines
3. Shut down the process	3.1 Complete the process safely according to workplace procedures 3.2 Identify and report maintenance requirements 3.3 Maintain workplace records accurately according to workplace procedures

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"> <li>Interpret text in work instructions and production schedule and recognise workplace signage</li> </ul>
Numeracy	<ul style="list-style-type: none"> <li>Interpret symbols and numbers to calibrate equipment and set process temperatures</li> <li>Use basic arithmetic to calculate quantities and weigh ingredients needed for production</li> </ul>
Oral communication	<ul style="list-style-type: none"> <li>Participate in verbal exchanges to ask questions and convey workplace information</li> </ul>
Navigate the world of work	<ul style="list-style-type: none"> <li>Recognise and follow workplace requirements, including safety, quality, food safety and environmental requirements, associated with own role and area of responsibility</li> </ul>
Interact with others	<ul style="list-style-type: none"> <li>Follow accepted practices and protocols for reporting issues to supervisors</li> </ul>
Get the work done	<ul style="list-style-type: none"> <li>Follow clearly defined instructions to plan and assemble resources and sequence tasks required to operate a griddle production process</li> <li>Monitor processes and control points, identify routine problems related to own work or role and initiate standard procedures to resolve</li> <li>Use key functions and follow routine procedures for using digital technology and automated equipment</li> </ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPPBK2006 Operate a griddle production process	FDFBK2006A Operate a griddle production process	<p>Updated to meet Standards for Training Packages</p> <p>Minor changes to performance criteria for clarity</p>	Equivalent unit

## Links

Companion Volumes, including Implementation Guides, are available at VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>



# Assessment Requirements for FBPPBK2006 Operate a griddle production process

## Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 1.0.

## Performance Evidence

An individual demonstrating competency must satisfy all of the elements and performance criteria in this unit.

There must be evidence that the individual has set up, operated, adjusted and shut down a griddle production process for different products on at least three occasions, including:

- confirming processing requirements and availability, condition and quantities of materials, services and ingredients
- safely conducting pre-start checks according to workplace requirements
- safely starting, operating, monitoring and adjusting process equipment to achieve required outcomes
- using process control systems according to workplace procedures
- taking corrective action in response to out-of-specification results in line with own role and responsibilities
- completing workplace records
- applying environmental and food safety policies and procedures to work practices.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- purpose and basic principles of griddle product manufacturing
- type and purpose of griddle equipment, including:
  - weighing equipment
  - mixing equipment
  - depositing equipment
  - cooking equipment
  - cooling fans and tunnels
  - extraction fans
  - conveyors

- basic operating principles of equipment, including:
  - main equipment components
  - status and purpose of guards
  - equipment operating capacities and applications
  - purpose and location of sensors and related feedback instrumentation
- procedures, including:
  - inspecting equipment condition to identify any signs of wear
  - selecting appropriate settings and/or related parameters
  - cancelling isolation and lock outs
  - confirming equipment is clean and correctly configured for processing requirements
  - positioning sensors and controls correctly
  - ensuring any scheduled maintenance has been carried out
  - confirming all safety guards are in place and operational
- typical equipment faults and related causes, including signs and symptoms of faulty equipment, loss of power, and early warning signs of potential problems
- procedures for monitoring production, including:
  - materials transfer prior to commencing mixing
  - mixing parameters including water temperature, sequence of ingredient addition, mixing times and mix consistency
  - depositing parameters to achieve product size and weight
  - monitoring mixture levels in hopper and alignment of deposited mixture
  - griddle line equipment, including temperature of cooking surface, the size, shape and colour of product, and moisture content of product
  - cooling equipment and time
- typical griddle ingredients, including:
  - flour
  - water
  - eggs
  - sugar
  - yeast
  - flavourings
  - colourings
  - spices
- basic operating principles of process control, including the relationship between control panels and systems and griddle production equipment
- key features of the flow of the griddle production process and the effect of outputs on customer satisfaction and downstream processes
- quality requirements of materials and effect of variation on process performance
- quality characteristics to be achieved by griddle products
- griddle product manufacturing process specifications, procedures and operating parameters

- operating requirements and parameters and corrective action required where operation is outside specified operating parameters
- methods used to monitor the production process, including:
  - inspecting, measuring and testing processes
  - inspection and test points (control points) in the process
  - related procedures and recording requirements
- common causes of variation and corrective action required
- work health and safety hazards and controls relevant to the griddle product manufacturing process, including:
  - limitations of personal protective equipment
  - routine shut down procedures
  - emergency shut down procedures
  - procedures to follow in the event of a power outage
  - isolation, lock out and tag out procedures and responsibilities
- procedures and responsibility for reporting production and performance information
- environmental and food safety issues and controls relevant to the process, including:
  - waste and rework collection and handling procedures
  - contamination and food safety risks
  - cleaning and sanitation procedures.

## Assessment Conditions

Assessment of this unit of competency must take place under the following conditions:

- physical conditions:
  - a workplace or an environment that accurately represents workplace conditions
- resources, equipment and material:
  - personal protective clothing and equipment
  - griddle line and related equipment
  - ingredients to produce griddle products
  - documentation or technology for recording information
  - cleaning materials and equipment
- specifications:
  - work instructions, including control points and griddle production processing parameters
  - production schedule and recipe and batch specifications for griddle products
  - information on equipment capacity and operating parameters
  - workplace procedures for griddle production process
- timeframes:
  - according to work requirements.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volumes, including Implementation Guides, are available at VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>



## FBPPBK2007 Operate a pastry production process

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 1.0.

### Application

This unit of competency describes the skills and knowledge required to set up, operate, adjust and shut down a pastry production process, including mixing and sheeting or layering processes.

This unit applies to individuals who work in a production baking environment under general supervision with some accountability for their own work. This includes identifying and providing solutions to a limited range of predictable problems relating to the operation and monitoring of the pastry production process and associated equipment.

All work must be carried out to comply with workplace procedures, in accordance with State/Territory work health and safety, and food safety regulations, legislation and standards that apply to the workplace.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

### Pre-requisite Unit

Nil

### Unit Sector

Production baking (PBK)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare the pastry production equipment	1.1 Read or listen to work instructions from supervisor and clarify where needed

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
and process for operation	1.2 Identify work health and safety hazards and report to supervisor 1.3 Wear appropriate personal protective equipment and ensure correct fit 1.4 Confirm availability of materials to meet production requirements 1.5 Identify and confirm cleaning and maintenance requirements have been met 1.6 Fit machine components and related attachments and adjust to meet operating requirements 1.7 Select processing and operating parameters to meet safety and production requirements 1.8 Check and adjust equipment according to manufacturer instructions to ensure optimum performance 1.9 Carry out pre-start checks according to operator instructions
2. Operate and monitor the pastry production process	2.1 Start the pastry production process according to workplace procedures 2.2 Monitor equipment to identify variation in operating conditions and report variations in equipment operation 2.3 Monitor the process to confirm that product meets specifications 2.4 Identify, rectify and report out-of-specification product and process outcomes 2.5 Conduct work and maintain a clean and tidy workplace according to workplace environmental guidelines
3. Shut down the process	3.1 Complete the pastry production process safely, according to workplace procedures 3.2 Identify and report maintenance requirements 3.3 Maintain workplace records accurately according to workplace procedures

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"> <li>Interpret text in work instructions and production schedule, and recognise workplace signage</li> </ul>
Numeracy	<ul style="list-style-type: none"> <li>Interpret symbols and numbers to calibrate equipment and check cooking temperatures and humidity</li> <li>Use basic arithmetic to calculate quantities and weigh ingredients needed for pastry production</li> </ul>
Oral communication	<ul style="list-style-type: none"> <li>Participate in verbal exchanges to ask questions and convey workplace information</li> </ul>
Navigate the world of work	<ul style="list-style-type: none"> <li>Recognise and follow workplace requirements, including safety, quality, food safety and environmental requirements, associated with own role and area of responsibility</li> </ul>
Interact with others	<ul style="list-style-type: none"> <li>Follow accepted practices and protocols for reporting issues to supervisors</li> </ul>
Get the work done	<ul style="list-style-type: none"> <li>Follow clearly defined instructions to plan and assemble resources and sequence tasks required to produce pastry</li> <li>Monitor processes and control points, identify routine problems related to own work or role and initiate standard procedures to resolve</li> <li>Use key functions and follow routine procedures for using digital technology and automated equipment</li> </ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPPBK2007 Operate a pastry production process	FDFBK2007A Operate a pastry production process	<p>Updated to meet Standards for Training Packages</p> <p>Minor changes to performance criteria for clarity</p>	Equivalent unit

## Links

Companion Volumes, including Implementation Guides, are available at VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# Assessment Requirements for FBPPBK2007 Operate a pastry production process

## Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 1.0.

## Performance Evidence

An individual demonstrating competency must satisfy all of the elements and performance criteria in this unit.

There must be evidence that the individual has set up, operated, adjusted and shut down a pastry production process on at least three occasions, including:

- accessing workplace information to identify pastry production processing requirements
- selecting, fitting and using personal protective equipment
- selecting ingredients and materials for pastry production:
  - according to recipe and production specifications
  - confirming supply, condition and quality of ingredients
- conducting pre-start checks, including:
  - inspecting equipment condition to identify any signs of wear
  - selecting appropriate settings and/or related parameters
  - cancelling isolation or lock outs
  - confirming equipment is clean and correctly configured for pastry production
  - positioning sensors and controls correctly
  - ensuring scheduled maintenance has been carried out
  - confirming all safety guards are in place and operational
  - positioning rework bins
- starting, operating, monitoring and adjusting pastry production process equipment to achieve production outcomes, including setting up and starting up mixers, rollers and laminating processes
- monitoring control points and conducting inspections to confirm process remains within specification
- monitoring supply and flow of materials to and from the dough preparation process and equipment operation to confirm process remains within specification, including:
  - flour temperature and type
  - water temperature

- fat type, distribution and percentage required for specific pastry types
- rework pastry addition
- dough characteristics
- mixing time
- rolling and laminating dough to specification, including:
  - ensuring in-line hoppers are filled with flour to prevent pastry sticking to rollers
  - roller settings are within specification
  - checking pastry thickness, fat percentage and number of pastry layers
- monitoring supply and flow of materials to and from the laminating process and equipment operation to confirm process remains within specification
- cutting and stacking or rolling pastry according to production requirements
- using process control systems according to workplace procedures
- taking corrective action in response to out-of-specification results in line with own role and responsibilities
- following work health and safety procedures, including:
  - responding to and/or reporting equipment failure
  - locating emergency stop functions on equipment
  - following isolation and lock out or tag out procedures to take pastry production process and related equipment off-line in preparation for cleaning and/or maintenance
- completing workplace records
- applying environmental and food safety policies and procedures to work practices, including:
  - maintaining work area to meet housekeeping standards
  - cleaning and sanitising equipment according to workplace procedures.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- purpose and basic principles of the pastry production process
- procedures for selecting ingredients and materials for pastry production, including:
  - recipe and production specifications
  - supply, condition and quality of ingredients
- types of pastry ingredients, including:
  - flour
  - water
  - ice
  - animal fat
  - vegetable fat
  - salt
  - pre-mixes

- baking powder
- melinta
- metrex
- sodium propate
- rework pastry
- sugar
- yeast
- types of equipment, including:
  - weighing equipment
  - mixing equipment
  - laminating and rolling equipment
  - cutting and stacking equipment
  - testing equipment
  - spike rollers and cutters
  - conveyors
  - rework bins
- procedures for starting, operating, monitoring and adjusting pastry production process equipment to achieve production outcomes, including setting up and starting up mixers, rollers and laminating processes
- procedures for monitoring control points and conducting inspections to confirm process remains within specification
- procedures for rolling and laminating dough to specification, including:
  - ensuring in-line hoppers are filled with flour to prevent pastry sticking to rollers
  - roller settings are within specification
  - checking pastry thickness, fat percentage and number of pastry layers
- procedures for monitoring supply and flow of materials to and from the laminating process and equipment operation to confirm process remains within specification
- procedures for cutting and stacking or rolling pastry according to production requirements
- basic operating principles of pastry production equipment, including:
  - main equipment components
  - status and purpose of guards
  - equipment operating capacities and applications
  - purpose and location of sensors and related feedback instrumentation
- typical equipment faults and related causes, including signs and symptoms of faulty equipment, loss of power, and early warning signs of potential problems
- basic operating principles of process control, including the relationship between control panels and systems and pastry production equipment
- key features of the flow of the pastry production process and the effect of outputs on customer satisfaction and downstream processes, including filling, forming and baking
- quality requirements, including:

- materials and ingredients and effect of variation on pastry production process performance
- finished pastry
- pastry production process specifications, procedures and operating parameters, including:
  - preparing dough
  - laminating
  - rolling
  - cutting and stacking pastry
- operating requirements and parameters and corrective action required where operation is outside specified operating parameters
- methods used to monitor the pastry production process, including:
  - inspecting, measuring and testing processes
  - inspection or test points (control points) in the process
  - related procedures and recording requirements
- common causes of variation and corrective action required, including the relationships between time and temperature and humidity in the pastry production process
- following work health and safety procedures, including:
  - limitations of personal protective equipment
  - routine shut down requirements
  - emergency shut down procedures
  - procedures to follow in the event of a power outage
  - isolation, lock out and tag out procedures and responsibilities
- procedures and responsibility for reporting production and performance information
- environmental and food safety issues and controls relevant to pastry production process, including:
  - waste/rework collection and handling procedures
  - contamination and food safety risks
  - cleaning and sanitation procedures.

## Assessment Conditions

Assessment of this unit of competency must take place under the following conditions:

- physical conditions:
  - a workplace or an environment that accurately represents workplace conditions
- resources, equipment and material:
  - personal protective clothing and equipment
  - pastry production equipment
  - ingredients to produce pastry products
  - documentation or technology for recording information
  - cleaning procedures, materials and equipment
- specifications:

- work instructions including control points and pastry production parameters
- production schedule, and recipe and batch specifications for pastry products
- information on equipment capacity and operating parameters
- workplace procedures for pastry production process
- relationships (internal and/or external):
  - workplace supervisor
- timeframes:
  - according to work requirements.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volumes, including Implementation Guides, are available at VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>



## FBPPBK3001 Operate a dough mixing process

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package version 1.0.

### Application

This unit of competency describes the skills and knowledge required to set up, operate, adjust and shut down a dough mixing process.

This unit applies to individuals who apply basic operating principles to the operation and monitoring of a dough mixing process in a production baking environment.

All work must be carried out to comply with workplace procedures, in accordance with State/Territory work health and safety, and food safety regulations, legislation and standards that apply to the workplace.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication

### Pre-requisite Unit

Nil

### Unit Sector

Production baking (PBK)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare dough making equipment and process for operation	1.1 Identify and fit personal protective equipment required for operation 1.2 Identify and confirm cleaning and maintenance status 1.3 Weigh or measure ingredients to meet recipe requirements

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	1.4 Fit and adjust mixing equipment in accordance with operating requirements 1.5 Enter processing and operating parameters to meet safety and production requirements 1.6 Check and adjust equipment performance as required 1.7 Carry out pre-start checks as required by workplace procedures
2. Operate and monitor dough mixing process	2.1 Start up the dough mixing process according to workplace procedures 2.2 Introduce ingredients to mixing process in correct sequence and quantity 2.3 Monitor equipment and identify and report variations in operating conditions 2.4 Monitor process to confirm dough meets specifications 2.5 Identify and rectify or report outcomes that fail to meet product specifications 2.6 Transfer finished dough according to workplace procedures 2.7 Maintain work area and conduct activities according to workplace procedures, food safety and environmental guidelines 2.8 Maintain workplace records in required format
3. Shut down the process	3.1 Identify appropriate shutdown procedure 3.2 Shut down process safely and clean equipment according to workplace procedures 3.3 Identify and report maintenance issues according to workplace procedures

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"> <li>Interpret standard operating procedures and directions for the safe</li> </ul>

Skill	Description
	operation of equipment when operating the dough mixing process
Writing	<ul style="list-style-type: none"> <li>Record maintenance requirements</li> <li>Record equipment failure</li> </ul>
Numeracy	<ul style="list-style-type: none"> <li>Confirm settings including mixing rate, mixing time, water and flour temperature</li> <li>Monitor supply and flow of materials to and from the dough making process</li> </ul>
Navigate the world of work	<ul style="list-style-type: none"> <li>Apply workplace procedures to own role and responsibilities and seek clarification or other assistance when required</li> <li>Maintain hygiene standards and hazard free work area</li> </ul>
Interact with others	<ul style="list-style-type: none"> <li>Report dough making process performance to relevant personnel using required communication method</li> </ul>
Get the work done	<ul style="list-style-type: none"> <li>Identify routine problems and implement standard solutions according to workplace guidelines</li> </ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPPBK3001 Operate a dough mixing process	FDFPB3001A Operate a dough mixing process	Updated to meet Standards for Training Packages	Equivalent unit

## Links

Companion Volumes, including Implementation Guides, are available at VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# Assessment Requirements for FBPPBK3001 Operate a dough mixing process

## Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package version 1.0.

## Performance Evidence

An individual demonstrating competency must satisfy all of the elements and performance criteria in this unit.

There must be evidence that the individual has demonstrated all steps of the dough mixing process at least once, including:

- identifying and acquiring ingredients and personal protective equipment required for the process
- safely conducting pre-start checks on process equipment
- loading ingredients in correct quantities and sequences for the recipe and the process
- starting, operating, monitoring and adjusting process equipment to ensure that product meets specifications
- taking corrective action in response to results that fail to meet specifications
- completing required workplace documentation
- safely shutting down process and cleaning equipment according to workplace requirements.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- purpose and basic principles of dough-making process, including components of wheat, flour types and grades relevant to products produced, yeast activity and dough development
- effects of variation in ingredient quality on the dough produced
- basic operating principles of equipment including equipment components, status and purpose of guards, equipment operating capacities and applications, and the purpose and location of sensors and related feedback instrumentation
- settings relevant to dough making equipment being used, including:
  - mixing rate
  - mixing time and work input

- ice and water requirements
- water temperature
- speed
- flour temperature
- cooling
- vacuum delay and level
- slurry addition
- flow of the dough-making process, including the stages and changes which occur during baking, and the effect of outputs on downstream processes
- significance of factors, such as dough temperature, development, time, water addition and temperature, yeast activity
- required characteristics of dough and effect of dough characteristics and variation on the final product
- operating requirements and parameters and corrective action required where operation is outside specified parameters
- typical equipment faults and related causes, including signs and symptoms of faulty equipment and early warning signs of potential problems, and procedures and responsibilities for addressing issues
- methods used to monitor the dough making process, including as inspecting, measuring and testing
- health and food safety risks associated with the dough making process and related control measures
- requirements of different shutdowns as appropriate to the dough making process and workplace production requirements, including emergency and routine shutdowns and procedures to follow in the event of a power outage
- procedures and responsibility for reporting production and performance information
- workplace cleaning procedures for the dough making process
- environmental issues and controls relevant to the dough making process, including waste collection and handling procedures.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - a workplace setting or an environment that accurately represents workplace conditions
- resources, equipment and materials:
  - personal protective equipment
  - dough mixing process and related equipment and services
  - ingredients to be processed
  - cleaning materials and equipment
  - workplace record keeping system
- specifications:

- work procedures, including advice on safe work practices, cleaning, food safety, quality, cleaning and environmental requirements
- manuals related to operation of dough making equipment
- dough recipe(s).

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## **Links**

Companion Volumes, including Implementation Guides, are available at VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## FBPPBK3002 Operate a final prove and baking process

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package version 1.0.

### Application

This unit of competency describes the skills and knowledge required to set up, operate, adjust and shut down the process used to carry out the final proving and baking of dough.

This unit applies to individuals who apply basic operating principles to the operation and monitoring of a final prove and baking process in a baking production environment.

All work must be carried out to comply with workplace procedures, in accordance with State/Territory work health and safety, and food safety regulations, legislation and standards that apply to the workplace.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication

### Pre-requisite Unit

Nil

### Unit Sector

Production baking (PBK)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare final proving and baking equipment process for operation	1.1 Supply dough to final prover to meet production and batch requirements 1.2 Confirm cleaning and maintenance requirements and status 1.3 Use appropriate personal protective equipment

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	1.4 Fit and adjust machine components and related attachments to meet operating requirements 1.5 Enter operating parameters to meet safety and production requirements 1.6 Check and adjust equipment performance as required 1.7 Perform pre-start checks according to workplace procedures
2. Operate and monitor final proving and baking process	2.1 Start up and operate final proving and baking process according to workplace procedures 2.2 Monitor equipment to identify variations in operating conditions 2.3 Monitor process to confirm products meet relevant specifications 2.4 Identify, rectify or report products that fail to meet specifications 2.5 Maintain work area and conduct activities according to housekeeping standards, food safety and workplace environmental guidelines 2.6 Maintain workplace records in required format
3. Shut down the final proving and baking process	3.1 Identify appropriate shutdown procedure 3.2 Shut down and clean process according to workplace procedures 3.3 Identify and report maintenance issues according to workplace requirements

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"> <li>Interpret standard operating procedures and directions for the safe operation of equipment during the final prove and baking process</li> </ul>
Writing	<ul style="list-style-type: none"> <li>Record maintenance requirements</li> <li>Record equipment failure</li> </ul>
Numeracy	<ul style="list-style-type: none"> <li>Interpret settings for final prover time, temperature and humidity</li> <li>Interpret settings for oven time and temperature</li> </ul>



Skill	Description
Navigate the world of work	<ul style="list-style-type: none"><li>• Apply workplace procedures to own role and responsibilities and seek clarification or other assistance when required</li><li>• Maintain hygiene standards and hazard free work area</li></ul>
Interact with others	<ul style="list-style-type: none"><li>• Report final prove and baking process performance to relevant personnel using required communication method</li></ul>
Get the work done	<ul style="list-style-type: none"><li>• Identify routine problems and implement standard solutions according to workplace guidelines</li></ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPPBK3002 Operate a final prove and baking process	FDFPB3002A Operate a final prove and baking process	Updated to meet Standards for Training Packages	Equivalent unit

## Links

Companion Volumes, including Implementation Guides, are available at VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# Assessment Requirements for FBPPBK3002 Operate a final prove and baking process

## Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package version 1.0.

## Performance Evidence

An individual demonstrating competency must satisfy all of the elements and performance criteria in this unit.

There must be evidence that the individual has demonstrated the entire proving and baking process at least once, including:

- confirming final prove and baking processing requirements
- safely conducting pre-start checks of final prove and baking process
- safely starting, operating, monitoring and adjusting final proving and baking process equipment and conducting inspections to confirm process conforms to specifications
- taking corrective action in response to results that fail to meet specifications
- completing required workplace documentation
- complying with food safety requirements
- safely shutting down process and cleaning equipment according to workplace requirements.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- the purpose and basic principles of each stage of the final proving and baking process
- basic operating principles of equipment, such as main equipment components, status and purpose of guards, equipment operating capacities and applications, and the purpose and location of sensors and related feedback instrumentation
- flow of the final proving and baking process and the effect of outputs on downstream processes
- changes that occur in dough during baking, including starch gelatinisation, gluten coagulation and enzyme activity, and their effect on the final product
- the effect of process variables, such as time, temperature and humidity on process stages
- the effect of yeast activity on the end product

- quality characteristics to be achieved by final proving and baking process, including factors influencing crust formation and colour
- quality requirements of materials and effects of variation on final prove and baking process performance
- operating requirements, parameters and corrective actions required if operations fall outside specified parameters
- typical equipment faults and related causes, including signs and symptoms of faulty equipment
- methods used to monitor the final proving and baking process, such as inspecting, measuring and testing as required by the process
- inspection or test points (control points) in final prove and baking process and the related procedures and recording requirements
- contamination and food safety risks associated with the final prove and baking process and related control measures
- possible work health and safety hazards and controls relevant to the work process, including the limitations of personal protective equipment
- requirements of different shutdowns as appropriate to the final prove and baking process and workplace production requirements, including emergency and routine shutdowns and procedures to follow in the event of a power outage
- isolation, lock out and tag out procedures and responsibilities
- procedures and responsibility for reporting production and performance information
- workplace cleaning and sanitation procedures
- environmental issues and controls relevant to the final prove and baking process, including waste collection and handling procedures related to the process.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - a workplace setting or an environment that accurately represents workplace conditions
- resources, equipment and materials:
  - personal protective equipment
  - final proving, baking and depanning process and related equipment and services
  - panned dough
  - dough transfer equipment
  - cleaning materials and equipment
  - workplace record keeping system
- specifications:
  - work procedures, including advice on safe work practices, food safety, quality, cleaning and environmental requirements
  - information on equipment capacity and operating parameters
  - production schedule and batch instructions
  - documentation and recording procedures.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volumes, including Implementation Guides, are available at VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## FBPPBK3003 Operate a dough make up process

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package version 1.0.

### Application

This unit of competency describes the skills and knowledge required to set up, operate, adjust and shut down a dough make up process.

This unit applies to individuals who apply basic operating principles to the operation and monitoring of a dough make up process in a baking production environment

All work must be carried out to comply with workplace procedures, in accordance with State/Territory work health and safety, and food safety regulations, legislation and standards that apply to the workplace.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

### Pre-requisite Unit

Nil

### Unit Sector

Production baking (PBK)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare divider, rounder, moulder, panning equipment and process for operation	1.1 Confirm availability of dough to meet operating requirements 1.2 Identify and confirm cleaning and maintenance requirements 1.3 Use appropriate personal protective equipment

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	1.4 Fit and adjust machine components and related attachments 1.5 Enter processing and operating parameters to meet safety and production requirements 1.6 Check and adjust equipment performance as required 1.7 Carry out pre-start checks according to workplace requirements
2. Operate and monitor the dough make up process	2.1 Start and operate the dough make up process according to workplace procedures 2.2 Monitor equipment operation and identify variations in operating conditions 2.4 Monitor process to confirm dough pieces meet required specifications 2.5 Identify, rectify or report products that fail to meet specifications 2.6 Maintain work area and conduct activities according to housekeeping standards, food safety and workplace environmental guidelines 2.7 Maintain workplace records in required format
3. Shut down the dough make up process	3.1 Identify appropriate shutdown procedures 3.2 Shut down and clean process according to workplace procedures 3.3 Identify and report maintenance requirements and report according to workplace procedures

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"> <li>Interpret standard operating procedures and directions for the safe operation of equipment for the dough make up process</li> </ul>
Writing	<ul style="list-style-type: none"> <li>Record maintenance requirements</li> <li>Record equipment failure</li> </ul>
Numeracy	<ul style="list-style-type: none"> <li>Confirm pre-start check including divider speed, weight setting</li> </ul>

Skill	Description
	<ul style="list-style-type: none"><li>and oil supply</li><li>• Confirm dough weight, size and shape remain within specifications</li></ul>
Navigate the world of work	<ul style="list-style-type: none"><li>• Apply workplace procedures to own role and responsibilities and seek clarification or other assistance when required</li><li>• Maintain hygiene standards and hazard free work area</li></ul>
Interact with others	<ul style="list-style-type: none"><li>• Report dough make up process performance to relevant personnel using required communication method</li></ul>
Get the work done	<ul style="list-style-type: none"><li>• Identify routine problems and implement standard solutions according to workplace guidelines</li></ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPPBK3003 Operate a dough make up process	FDFPB3003A Operate a dough make up process	Updated to meet Standards for Training Packages	Equivalent unit

## Links

Companion Volumes, including Implementation Guides, are available at VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# Assessment Requirements for FBPPBK3003 Operate a dough make up process

## Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package version 1.0.

## Performance Evidence

An individual demonstrating competency must satisfy all of the elements and performance criteria in this unit.

There must be evidence that the individual has, on at least occasion, demonstrated all steps of the dough make up process, including:

- confirming dough make up processing requirements
- safely conducting pre-start checks of the dough make up process
- confirming supply of oiling pans, setting pan stops and guides for panning unit
- safely starting, operating, monitoring and adjusting process equipment and conducted inspections to confirm process conforms to specifications including:
  - dough height in hopper
  - dough weight
  - oil flow to divider
  - size and shape of dough piece
  - skin formation during intermediate proof
  - presence of 'doubles'
  - process variables such as time, temperature and humidity
- taking corrective action in response to results that fail to meet specifications
- completing required workplace documentation
- complying with food safety requirements
- safely shutting down process and cleaning equipment according to workplace requirements.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- the purpose and basic principles of each stage of the dough make up process



- basic operating principles of equipment including main equipment components, status and purpose of guards, equipment operating capacities and applications, and the purpose and location of sensors and related feedback instrumentation
- flow of the dough make up process and the effect of outputs on downstream processes
- effect of process variables including time, temperature and humidity on process stages
- procedures for carrying out pre-start checks, including:
  - divider speed, weight setting and oil supply
  - air flow from fans in rounder
  - intermediate proving process airflow
  - moulding process settings, including sheeting, sealing board height and width, four piecing and roller adjustments
  - panning process settings, including side guides, sealing board, knives, folders and side belts
- effect of process stages including moulding on dough structure
- quality characteristics to be achieved by the dough make up process
- quality requirements of materials and effects of variation on the dough make up process
- operating requirements and parameters and corrective action required if operation falls outside specified operating parameters
- typical equipment faults and related causes, including signs and symptoms of faulty equipment and early warning signs of potential problems
- methods of monitoring dough make up process, such as inspecting, measuring and testing as required
- inspection or test points (control points) in dough make up process and the related procedures and requirements
- contamination and food safety risks associated with the dough make up process and related control measures
- possible work health and safety hazards and controls relevant to the work process, including the limitations of personal protective equipment
- requirements of different shutdowns and workplace production requirements, including emergency and routine shutdowns and procedures to follow in the event of a power outage
- cleaning methods and procedures
- isolation, lock out or tag out procedures and responsibilities
- cleaning and sanitation procedures
- procedures and responsibility for reporting production and performance information
- environmental issues and controls relevant to the dough make up process, including waste collection and handling procedures related to the process.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - a workplace setting or an environment that accurately represents workplace conditions
- resources, equipment and materials:

- personal protective equipment
- dough make up and transfer equipment and services
- dough to be processed
- workplace record keeping system
- specifications:
  - work procedures, including advice on safe work practices, food safety, quality, cleaning and environmental requirements
  - information on equipment capacity and operating parameters
  - production schedule and batch instructions
  - sampling schedules and test procedures and equipment as required

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volumes, including Implementation Guides, are available at VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# FBPPHM2001 Follow work procedures to maintain Good Manufacturing Practice requirements

## Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

## Application

This unit of competency describes the skills and knowledge required to comply with relevant Good Manufacturing Practice (GMP) requirements and workplace quality standards in a pharmaceutical manufacturing facility.

The unit applies to individuals who follow GMP requirements to undertake routine pharmaceutical manufacture work, under supervision.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

## Pre-requisite Unit

Nil

## Unit Sector

Pharmaceutical (PHM)

## Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Identify requirements of GMP related to own work	1.1 Locate sources of information on GMP requirements in the workplace 1.2 Identify GMP requirements for pharmaceutical manufacture tasks 1.3 Confirm specific GMP requirements for own work

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
2. Prepare for work	2.1 Ensure personal hygiene meets GMP requirements 2.2 Prepare, use, store and dispose of personal protective equipment and contamination prevention clothing according to GMP requirements and workplace procedures 2.3 Comply with area entry and exit procedures when moving around the workplace
3. Follow GMP requirements when carrying out work activities	3.1 Routinely monitor work area, materials and equipment to ensure compliance with GMP requirements 3.2 Handle raw materials, product and packaging components according to GMP requirements and workplace procedures 3.3 Identify contamination and follow appropriate control measures relating to work responsibilities and GMP requirements 3.4 Identify processes, practices or conditions which are inconsistent with GMP requirements and report according to workplace procedures 3.5 Maintain workplace cleanliness and tidiness to meet GMP requirements 3.6 Conduct work according to workplace environmental procedures 3.7 Complete documentation according to workplace procedures

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"> <li>Identify and comprehend information about GMP requirements</li> </ul>
Writing	<ul style="list-style-type: none"> <li>Record workplace information using appropriate language and in required format</li> </ul>
Navigate the world of work	<ul style="list-style-type: none"> <li>Apply workplace procedures to own role and responsibilities</li> <li>Understand main tasks, responsibilities and boundaries of own role</li> </ul>
Interact with others	<ul style="list-style-type: none"> <li>Report operational and safety information to relevant personnel using required communication method</li> </ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPPHM2001 Follow work procedures to maintain Good Manufacturing Practice requirements	FDFPH1001A Follow work procedures to maintain Good Manufacturing Practice	Updated to meet Standards for Training Packages  Changes to elements and performance criteria for clarity  Code changed to reflect AQF alignment	Equivalent unit

## Links

Companion Volume Implementation Guides are found in VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# Assessment Requirements for FBPPHM2001 Follow work procedures to maintain Good Manufacturing Practice requirements

## Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

## Performance Evidence

An individual demonstrating competency must satisfy all of the elements and performance criteria in this unit.

There must be evidence that the individual has followed work procedures to maintain Good Manufacturing Practice (GMP) and demonstrated each of the following points at least once:

- located and followed workplace information relating to GMP responsibilities
- maintained good personal hygiene consistent with GMP requirements, including:
  - making team leader or supervisor aware of reportable illness
  - removal of jewellery
  - removal of makeup
- used personal protective equipment and contamination prevention clothing according to workplace procedures
- used and stored personal clothing and footwear consistent with GMP requirements and workplace procedures
- followed workplace procedures when moving around the workplace to maintain GMP
- followed GMP requirements when carrying out work functions
- identified and responded to performance that fails to meet GMP requirements, including:
  - making adjustments
  - reporting to relevant personnel
- handled and disposed of materials that are contaminated or non-conforming
- identified and reported a situation that could compromise GMP requirements
- maintained work area in a clean and tidy state
- followed workplace procedures for documentation and recording.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- sources of advice on GMP requirements in relation to own work
- the role of GMP in preventing contamination and potential implications of non-compliance
- the relationship between GMP and the quality system, including:
  - personnel responsible for designing and managing GMP
  - personal role to maintain GMP
  - the role of internal and external auditors
- personal protective equipment and contamination prevention clothing requirements
- personal clothing and footwear use, storage and disposal requirements
- storage and handling requirements for raw materials, product and packaging components relevant to work role
- common types and sources of contamination in the work area including pest infestation
- control methods and procedures used in the work area to maintain GMP, including:
  - the purpose of control
  - the consequences of lack of control
  - control monitoring
- performance that is unacceptable or fails to meet specifications
- actions required in response to non-conformance
- workplace environmental procedures
- workplace procedures for reporting and recording information.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - a pharmaceutical manufacturing workplace or an environment that accurately represents workplace conditions
- resources, equipment and materials:
  - personal protective equipment and contamination prevention clothing
  - commercial pharmaceutical production and packaging equipment
- specifications:
  - GMP information relating to the workplace
  - reporting and monitoring systems
  - workplace instructions and procedures
- relationships:
  - supervisor.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volume Implementation Guides are found in VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>



# FBPPHM3001 Apply Good Manufacturing Practice requirements

## Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

## Application

This unit of competency describes the skills and knowledge required to comply with relevant Good Manufacturing Practice (GMP) requirements and workplace quality standards in a pharmaceutical manufacturing facility.

The unit applies to individuals who apply GMP requirements to undertake pharmaceutical manufacture work. Individuals work under broad direction and take responsibility for their own work.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

## Pre-requisite Unit

Nil

## Unit Sector

Pharmaceutical (PHM)

## Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Identify GMP as a regulatory concept	1.1 Locate sources of information relevant to work role from current Australian and other applicable regulatory frameworks for manufacturing pharmaceuticals  1.2 Locate sources of information relevant to work role relating to current global harmonisation of GMP compliance and product registrations

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
2. Identify requirements of GMP related to own work	2.1 Locate sources of information on GMP requirements in the workplace 2.2 Identify GMP requirements for pharmaceutical manufacture tasks 2.3 Confirm specific GMP requirements for own work 2.4 Identify GMP non-compliant situations and risks to product quality 2.5 Alert relevant personnel and take appropriate action according to GMP requirements and workplace procedures
3. Complete workplace documentation to support GMP	3.1 Use workplace procedures to identify GMP requirements for documentation 3.2 Record information, including calculations and test results according to workplace reporting procedures and GMP requirements 3.3 Certify records, including electronic records, according to GMP requirements
4. Identify and follow biosecurity requirements	4.1 Identify information appropriate to work role relating to biosecurity requirements 4.2 Follow workplace biosecurity requirements and responsibilities related to work role
5. Apply GMP requirements when carrying out work activities	5.1 Identify common forms of contamination 5.2 Conduct work according to workplace environmental procedures 5.3 Maintain workplace cleanliness and tidiness to meet GMP requirements 5.4 Identify and report signs of unacceptable plant or equipment condition, including calibration status 5.5 Identify GMP requirements for routinely monitoring work area, materials, equipment and product 5.6 Complete documentation according to workplace procedures
6. Ensure personal hygiene and conduct meet GMP requirements	6.1 Maintain personal hygiene to meet GMP requirements 6.2 Carry out hand washing according to best practice hygiene standards 6.3 Prepare, use, store and dispose of personal protective equipment and contamination prevention clothing according to GMP requirements and workplace procedures 6.4 Comply with area entry and exit procedures when moving around

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	the workplace
7. Participate in improving GMP	<p>7.1 Identify processes, practices or conditions which are inconsistent with GMP requirements and report according to workplace procedures</p> <p>7.2 Identify elements of GMP that help improve products and processes</p> <p>7.3 Implement corrective action within level of responsibility</p>

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"> <li>Interpret information about GMP compliance requirements in workplace documentation</li> </ul>
Writing	<ul style="list-style-type: none"> <li>Record workplace information using appropriate language and in required format</li> </ul>
Navigate the world of work	<ul style="list-style-type: none"> <li>Apply workplace procedures to own role and responsibilities</li> <li>Understand main tasks, responsibilities and boundaries of own role</li> </ul>
Interact with others	<ul style="list-style-type: none"> <li>Report operational and safety information to relevant personnel using required communication method</li> </ul>
Get the work done	<ul style="list-style-type: none"> <li>Use problem-solving techniques to address routine issues within level of responsibility</li> </ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPPHM3001 Apply Good Manufacturing Practice	FDFPH2001A Apply Good Manufacturing Practice procedures	Updated to meet Standards for Training Packages Additional elements	No equivalent unit

requirements		and performance criteria  Code changed to reflect AQF alignment	
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## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# Assessment Requirements for FBPPHM3001 Apply Good Manufacturing Practice requirements

## Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

## Performance Evidence

An individual demonstrating competency must satisfy all of the elements and performance criteria in this unit.

There must be evidence that the individual has applied Good Manufacturing Practice (GMP) requirements, and demonstrated each of the following points at least once:

- read and interpreted relevant instructions and labels applicable to GMP operations, including pictorial and written signs and instructions
- followed workplace information relating to GMP responsibilities
- completed forms and reports according to GMP requirements and workplace procedures
- recorded calculations and test results
- identified and responded to:
  - out-of-calibration equipment
  - out-of-specification or unacceptable raw materials, packaging components, final or part processed product
- maintained workplace cleanliness and tidiness to meet GMP requirements
- maintained personal hygiene consistent with GMP requirements, including:
  - making team leader or supervisor aware of reportable illness
  - removal of jewellery
  - removal of makeup
- cleaned and sanitised hands using recognised procedures for:
  - washing with soap and water
  - rubbing with an alcohol-based formulation
- used personal protective clothing and equipment and contamination prevention clothing according to GMP requirements
- provided accurate verbal and written descriptions of incidents or situations that did or could have:
  - compromised GMP compliance or product quality

- provided the potential for product contamination.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- GMP as a regulatory concept, including regulatory obligations of employees, and the potential implications of non-compliance
- sections of Australian and other applicable regulatory frameworks relevant to pharmaceutical manufacturing:
  - National Medicines Policy
  - Therapeutic Goods Act (TGA)
  - Therapeutic Goods Regulations
  - Manufacturing Principles
  - Therapeutic Goods Orders
  - GMP code of practice
  - other TGA guidelines relevant to product and market
  - state or territory regulations or legislation relating to environmental manufacturing and health and safety in the workplace
  - United States Food, Drug and Cosmetic Act and associated Codes of Federal Regulations and guidance
  - European directives and legislation of European Union member states applicable to pharmaceutical manufacturing.
- drivers of global harmonisation initiatives, including risks in the supply chain when operating in a global environment, including the following:
  - Pharmaceutical Inspection Co-operation Scheme (PIC/S) background and guidance
  - The International Conference on Harmonisation of Technical Requirements for Registration of Pharmaceuticals for Human Use (ICH) background and guidance
  - World Health Organization (WHO) background and guidance
- the relationship between GMP and the quality system, including:
  - personnel responsible for designing and managing GMP
  - personal role to maintain GMP
  - the role of internal and external auditors
  - quality procedures
  - quality assurance
  - quality control
  - risk management procedures
- personal clothing use, storage and disposal requirements and hygiene requirements, including:
  - informing team leader or supervisor of reportable illness
  - removal of jewellery
  - removal of makeup

- personal clothing and footwear requirements for working in and moving between work areas
- workplace cleaning standards and responsibilities relating to own work, including:
  - waste collection
  - recycling, safe handling and disposal for different types of waste
  - safe handling and disposal of hazardous waste
- sections of the following Acts and Regulations related to biosecurity requirements of pharmaceutical manufacturing:
  - the Gene Technology Act 2000
  - Biosecurity Act 2015
  - Export Control Act 1982
  - Imported Food Control Act 1992
  - regulatory requirements which apply to the supply of materials which are genetically modified organisms
  - regulatory requirements relating to quarantining and use of materials and products
- awareness of common contaminants relevant to the work process, including:
  - microbiological, from materials, equipment, environment and personnel
  - physical, from equipment, environment and personnel
  - chemical, from other products or materials, including cleaning agents
- quality control methods and procedures, including the purpose of control and the consequence if not controlled
- properties, handling and storage requirements of raw materials, packaging components and final product
- GMP requirements for maintaining plant and process equipment
- GMP requirements for transferring of equipment and material between areas
- GMP requirements for equipment status labelling
- documentation systems and procedures, including:
  - recordkeeping to meet both workplace and legal requirements
  - responsibilities for reporting and recording information
  - batch documentation
  - cleaning records
  - training records
  - product and materials traceability procedures
  - controls and methods for ensuring electronic data integrity and paper data integrity
  - significance of certifying and verifying GMP records
- procedures for responding to out-of-specification or unacceptable process performance or outcomes
- awareness of controls to protect personnel and the environment from contamination by products and materials.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - a pharmaceutical manufacturing workplace or an environment that accurately represents workplace conditions
- resources, equipment and materials:
  - personal protective equipment and contamination prevention clothing
  - alcohol based hand cleanser
  - soap and water
  - commercial pharmaceutical production and packaging equipment
- specifications:
  - GMP requirements
  - workplace reporting procedures
  - workplace procedures related to GMP
  - workplace biosecurity requirements
  - workplace environmental procedures.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>



## FBPPHM3002 Operate a pharmaceutical production process

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

### Application

This unit of competency describes the skills and knowledge required to setup, operate monitor, adjust and shut down a production process in a pharmaceutical manufacturing facility.

The unit applies to individuals who apply operating principles to the production process. Individuals work under broad direction and take responsibility for their own work.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

### Pre-requisite Unit

Nil

### Unit Sector

Pharmaceutical (PHM)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Receipt materials and components	1.1 Confirm incoming goods correspond to workplace documentation 1.2 Clean and label containers with prescribed data, according to workplace procedures 1.3 Quarantine incoming goods including release and reject status according to Good Manufacturing Practice (GMP) requirements and

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	workplace procedures 1.4 Identify and report deviations, unusual events and non-conformances according to GMP and workplace procedures
2. Set up the production process for operation	2.1 Confirm equipment and materials meet production requirements 2.2 Confirm cleaning requirements and equipment status 2.3 Select and fit personal protective equipment and contamination prevention clothing according to workplace procedures 2.4 Enter processing and operating parameters according to safety and production requirements 2.5 Check and adjust equipment performance 2.6 Conduct pre-start checks according to workplace procedures
3. Dispense materials	3.1 Deliver materials in required quantities and sequence according to batch and production requirements 3.2 Record dispensed material, including weight or volume according to batch and production requirements 3.3 Label dispensed materials for each batch and stage according to production requirements
4. Operate and monitor the production process	4.1 Start up, monitor and control production process to maintain process within required limits 4.2 Identify and report out of limit products or processes according to workplace procedures 4.3 Maintain work area according to workplace cleaning standards 4.4 Conduct production process according to safety and environmental requirements 4.5 Complete documentation according to workplace procedures
5. Hand over the production process	5.1 Perform handover according to workplace procedures 5.2 Inform handover production team of process and related equipment status at completion of handover
6. Shut down the process	6.1 Confirm the workplace procedures for shutting down the process 6.2 Complete end-of-batch procedures according to batch instructions and workplace procedures

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	6.3 Safely shut down the process 6.4 Complete records according to workplace procedures

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"><li>Identify relevant information from workplace documentation and interpret requirements for the pharmaceutical production process</li></ul>
Writing	<ul style="list-style-type: none"><li>Complete workplace documentation using appropriate language and in required format</li></ul>
Numeracy	<ul style="list-style-type: none"><li>Interpret material and product specifications</li></ul>
Navigate the world of work	<ul style="list-style-type: none"><li>Identify workplace procedures relevant to own role</li></ul>
Interact with others	<ul style="list-style-type: none"><li>Report operational and safety information to relevant personnel using required communication method</li></ul>
Get the work done	<ul style="list-style-type: none"><li>Plan, organise and implement tasks required to achieve production outcomes</li><li>Use problem-solving skills to analyse product and process faults and decide on appropriate action</li></ul>

## Range of Conditions

*This section specifies different work environments and conditions that may affect performance. Essential operating conditions that may be present (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) are included.*

Equipment must include:	<ul style="list-style-type: none"><li>at least one from the three items below:<ul style="list-style-type: none"><li>bioreactor</li><li>tablet press</li></ul></li></ul>
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	<ul style="list-style-type: none"> <li>sterilising equipment</li> <li>plus all of the following items: <ul style="list-style-type: none"> <li>filling machine</li> <li>filtration equipment</li> <li>mixing vessel</li> <li>weighing instrument.</li> </ul> </li> </ul>
Cleaning requirements must include:	<ul style="list-style-type: none"> <li>area or line clearance</li> <li>full or partial clean</li> <li>automated or semi-automated or manual cleaning of equipment</li> <li>sanitation or sterilisation.</li> </ul>
Equipment status must include:	<ul style="list-style-type: none"> <li>calibrated</li> <li>clean</li> <li>clean/dirty hold time</li> <li>in use</li> <li>ready to use.</li> </ul>
Pre-start checks must include:	<ul style="list-style-type: none"> <li>carrying out required area or line clearances</li> <li>inspecting equipment condition to identify signs of wear</li> <li>confirming all safety equipment is in place and operational</li> <li>confirming that equipment is clean or sanitised</li> <li>confirming that equipment is correctly configured for processing requirements</li> </ul>
Items to monitor must include:	<ul style="list-style-type: none"> <li>environment</li> <li>product appearance</li> <li>pH</li> <li>volume or weight</li> <li>temperature.</li> </ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPPHM3002 Operate a pharmaceutical production process	Not applicable	New unit	No equivalent unit

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## Assessment Requirements for FBPPHM3002 Operate a pharmaceutical production process

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

### Performance Evidence

An individual demonstrating competency must satisfy all of the elements and performance criteria in this unit.

There must be evidence that the individual has safely operated at least one pharmaceutical production process, including:

- accessed workplace information to confirm production requirements
- confirmed supply of necessary equipment and materials
- handled and stored materials and products in a manner that prevents contamination and mix-ups
- selected, fitted and used personal protective equipment and contamination prevention clothing
- conducted pre-start checks, including:
  - carrying out required area or line clearances
  - inspecting equipment condition to identify signs of wear
  - confirming all safety equipment is in place and operational
  - confirming that equipment is clean or sanitised
  - confirming that equipment is correctly configured for processing requirements
- started, operated, monitored and adjusted equipment to achieve required outcomes, including:
  - adding and loading materials in correct quantities and sequences
  - supply and flow of materials to and from the process
- checked process control points and conducted inspections to confirm process remains within limits, including:
  - product sampling
  - process control testing
  - adjusting process according to workplace procedures
- followed end-of-batch procedures, including three of the following:

- product sampling
- environmental sampling
- line clearances and cleaning (full or partial)
- yield calculation
- materials reconciliation
- change equipment status (sterile/clean to dirty/clean)
- safely shut down the process according to workplace procedures
- cleaned and maintained work area to meet workplace cleaning standards and environmental requirements
- completed records according to workplace procedures.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- stages of the pharmaceutical manufacturing process, including:
  - the purpose, methods and outcomes of each stage
  - control points
  - checking materials are suitable for use including release status
  - flow of materials, people and waste
  - flow of the manufacturing process and the effect of outputs on downstream processes
- basic operating principles of equipment, requirements and parameters of pharmaceutical manufacturing equipment, including:
  - main equipment components, operating capacities and applications
  - typical equipment faults and related causes, including signs and symptoms of faulty equipment and early warning signs of potential problems
  - status and purpose of guards
  - the purpose and location of sensors and related feedback instrumentation
- processing equipment and utility systems and how product quality and Good Manufacturing Practice (GMP) compliance can be impacted by:
  - performance
  - functionality
  - construction
  - instrumentation
- common GMP non-conformances and unusual events found in a pharmaceutical production environment, including:
  - missing, illegible or inaccurate records
  - failure to follow workplace procedures
  - failure of cleaning regime
  - damaged goods, including; starting materials, components, intermediates and finished products

- product diverted from normal course of process
- loss of sterility or pressure
- spills
- out of limit situations including; yields, reconciliations, in process controls and in process checks
- damage or poor maintenance of plant or equipment
- signs of inadequate cleaning or pest infestation
- terminology associated with control of GMP processes, including:
  - process variation
  - critical quality attribute
  - critical process parameter
- functions and limitations of personal protective equipment and contamination prevention clothing relevant to the work process
- pre-start checks requirements, including:
  - carrying out required area or line clearances
  - carrying out differential pressure checks or room status checks
  - inspecting equipment condition to identify any signs of wear
  - confirming that equipment is clean or sanitised
  - confirming appropriate settings and/or related parameters
  - confirming product details and ingredients
- methods used to monitor the production process, including:
  - inspecting
  - measuring
  - testing
- items to monitor during the production process, including:
  - environment
  - product appearance
  - pH
  - volume or weight
  - temperature
- product and process changeover procedures and responsibilities
- end-of-batch procedures, including:
  - product sampling
  - environmental sampling
  - line clearances and cleaning (full or partial)
  - yield calculation
  - materials reconciliation
  - change equipment status (sterile/clean to dirty/clean)
- requirements of different shutdowns, including:
  - emergency and routine shutdowns



- procedures to follow in the event of a power outage
- isolation, lock out and tag out procedures and responsibilities
- operating principles of process control, including the relationship between control panels and systems and the physical equipment
- GMP requirements for production and process controls, including:
  - identification and traceability
  - yields and reconciliation
  - segregation and storage
  - status labels (physical and electronic)
- environmental issues and controls relevant to the production environment, including waste collection and handling procedures
- requirements for completion of workplace documentation.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - a pharmaceutical manufacturing workplace or an environment that accurately represents workplace conditions
- resources, equipment and materials:
  - personal protective equipment and contamination prevention clothing
  - manufacturing process equipment
  - materials required for the manufacturing process
  - cleaning materials and equipment associated with the manufacturing process
  - record keeping system
- specifications:
  - batch instructions including product specifications, control points and processing parameters
  - recording requirements and procedures
  - workplace documentation relating to manufacturing process and procedures that comply with GMP requirements
  - information and documentation relating to handover
  - cleaning procedures associated with manufacturing process.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## FBPPHM3003 Work in a controlled environment

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

### Application

This unit of competency describes the skills and knowledge required to prepare to enter, work and exit a controlled environment in a pharmaceutical manufacturing facility.

The unit applies to individuals who apply Good Manufacturing Practice (GMP) requirements and operating principles to working in a controlled environment. Individuals work under broad direction and take responsibility for their own work.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

### Pre-requisite Unit

Nil

### Unit Sector

Pharmaceutical (PHM)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare to enter a controlled environment	1.1 Obtain workplace information, including workplace procedures related to working in a controlled environment 1.2 Remove jewellery and makeup according to workplace procedures 1.3 Wash hands according to workplace procedures 1.4 Source and fit personal protective equipment (PPE) and contamination prevention clothing prior to entering controlled

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	environment 1.5 Check controlled environment operating conditions prior to entry
2. Work in a controlled environment	2.1 Enter controlled environment according to workplace procedures 2.2 Take commodity items into the controlled environment according to workplace procedures 2.3 Conduct work activities to minimise risk of contamination
3. Maintain a controlled environment	3.1 Identify controlled environment contamination risks 3.2 Control environmental contamination according to GMP requirements and workplace procedures 3.3 Maintain controlled environment work area according to workplace cleaning standards and environmental requirements 3.4 Report practices inconsistent with GMP according to workplace procedures
4. Exit a controlled environment	4.1 Follow workplace procedures to exit a controlled environment 4.2 Remove PPE and contamination prevention clothing according to workplace procedures 4.3 De-gown according to workplace procedures 4.4 Check, store and dispose of PPE according to manufacturer specifications, environmental and work health and safety requirements

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"> <li>Interpret signs, symbols, checklists, production schedules, cleaning schedules and other technical information relevant to working in controlled environments</li> <li>Access and interpret GMP information relevant to working in controlled environments</li> </ul>

Skill	Description
Writing	<ul style="list-style-type: none"> <li>Complete workplace documentation using appropriate language and in required format</li> </ul>
Interact with others	<ul style="list-style-type: none"> <li>Report GMP concerns to relevant personnel using required communication method</li> </ul>
Navigate the world of work	<ul style="list-style-type: none"> <li>Recognise and follow workplace requirements, including safety requirements and GMP, associated with own role and area of responsibility</li> </ul>

## Range of Conditions

*This section specifies different work environments and conditions that may affect performance. Essential operating conditions that may be present (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) are included.*

Controlled environment must include at least one of the following:	<ul style="list-style-type: none"> <li>controlled, non-classified environment</li> <li>cleanrooms that are controlled environments that have been certified as meeting an internationally recognised standard.</li> </ul>
Contamination prevention clothing must include at least one of the following:	<ul style="list-style-type: none"> <li>facility suits for controlled, non-classified environment</li> <li>disposable and reusable garments for controlled, classified cleanroom environments.</li> </ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPPHM3003 Work in a controlled environment	Not applicable	New unit	No equivalent unit

## Links

Companion Volume Implementation Guides are found in VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>



# Assessment Requirements for FBPPHM3003 Work in a controlled environment

## Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

## Performance Evidence

An individual demonstrating competency must satisfy all of the elements and performance criteria in this unit.

There must be evidence that the individual has worked in at least one controlled environment, and demonstrated that they have:

- accessed workplace information to identify controlled environment work requirements
- read and interpreted workplace procedures, including pictorial and written signs/instructions applicable to working in a controlled environment
- checked operating conditions of the controlled environment according to workplace and Good Manufacturing Practice (GMP) requirements
- maintained good personal hygiene and cleanliness appropriate to working in a controlled environment, consistent with GMP requirements, including:
  - making team leader or supervisor aware of reportable illness
  - removal of jewellery
  - removal of makeup
  - following changing procedures
- cleaned and sanitised hands using recognised procedures for:
  - washing with soap and water
  - rubbing with an alcohol-based formulation
- used facility suits and personal protective equipment appropriate for the grade of controlled environment or cleanroom in a manner that does not generate additional contaminants
- entered and exited a controlled environment in a manner to minimise contamination
- identified and reported any condition that may cause shedding of abnormal numbers or types of contaminants
- identified contamination hazards typically encountered in pharmaceutical manufacturing environments and took steps to prevent identified hazards

- cleaned and maintained work area to meet workplace cleaning standards and environmental requirements.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- international nomenclature and classification of controlled environments and cleanrooms
- GMP grades of cleanrooms and their relationship to the International Organization for Standardization (ISO) classification system
- GMP requirements for the qualification of cleanrooms
- key design requirements for controlled environments and cleanroom for product protection:
  - layout and architecture
  - product and process requirements for clean air
  - filtration, including High Efficiency Particulate Air (HEPA) filters and the theory of particle filtration
  - airlocks for materials, equipment and people
  - turbulent and laminar air flows
  - pressure differentials
  - box-within-a-box principle
  - cleanability and maintainability
- how controlled environments operate to control contamination, including:
  - clean rooms, including how they are certified
  - controlled, non-classified environments
  - clean zones
  - monitor and test systems
  - isolator technology
  - at rest and in operation
  - gowning and cleaning
- GMP requirements and workplace procedures for working in controlled environments and cleanrooms, including:
  - requirements for approving and taking commodity items into the cleanroom
  - restrictions on movement of personnel to minimise cross-contamination
  - cleanroom garments, including types, materials, processing and reprocessing
  - personal hygiene requirements
  - clothing and footwear requirements for working in and moving between work areas
  - personal clothing use, storage and disposal requirements
  - workplace cleaning standards and environmental requirements relating to own work
  - responsibilities of general cleaning staff and how to work with a cleaning team

- the role of cleaning and sanitising in preventing contamination of materials and products and protection of personnel, including:
  - how improper cleaning of a controlled environment or cleanroom can lead to product contamination
  - the need for proper selection of equipment and materials for proper cleaning
- controlled environment operating conditions, including:
  - differentials pressures
  - particle counts
  - microbial sampling
  - laminar air flow
  - humidity
  - temperature
  - room status
  - cleanliness status
- hygiene and basic elements of microbiology
- sources of contamination, including:
  - product
  - people
  - tools
  - facilities
  - equipment
- risks associated with controlled environment and cleanroom operators:
  - physical behaviour, including how to walk and stand in a cleanroom
  - personal hygiene
  - psychological
  - workplace attitudes and habits
  - communications between workers
  - electrostatic discharge
- contamination risks associated with controlled environment and clean room operations, including:
  - number of personnel in the controlled environment
  - activities being undertaken
  - leaks
  - malfunctioning equipment
  - low differential pressures
  - high particle counts
  - incorrect air flow and velocity
  - humidity
  - temperature
  - room status inactive or in alarm



- lack of cleanliness
- common practices inconsistent with GMP found in controlled environment and clean room operations, including:
  - damage to plant or equipment
  - failure of cleaning regime
  - signs of pest infestation
  - missing or inaccurate records
  - failure to follow workplace procedures.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - a pharmaceutical manufacturing workplace or an environment that accurately represents workplace conditions
- resources, equipment and materials:
  - personal protective equipment and contamination prevention clothing
  - cleaning materials and equipment associated with working in a controlled environment
- specifications:
  - workplace procedures related to working in a controlled environment including gowning/de-gowning procedures that comply with GMP requirements
  - workplace cleaning standards and environmental requirements related to working in a controlled environment.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## FBPPHM3004 Clean and sanitise facilities and equipment

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

### Application

This unit of competency describes the skills and knowledge required to plan, prepare, clean and sanitise processing facilities and equipment in a pharmaceutical manufacturing facility.

The unit applies to individuals who apply Good Manufacturing Practice (GMP) requirements and operating principles to the cleaning and sanitising of facilities and equipment. Individuals work under broad direction and take responsibility for their own work.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

### Pre-requisite Unit

Nil

### Unit Sector

Pharmaceutical (PHM)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Plan and prepare to clean pharmaceutical processing areas and equipment	1.1 Obtain cleaning task requirements, including job specifications and workplace procedures for sampling and testing cleaning outcomes 1.2 Identify surfaces and soil and dirt types and select appropriate cleaning techniques 1.3 Select and prepare cleaning chemicals required for job 1.4 Select and check cleaning equipment and consumables for

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	<p>serviceability and compliance with cleaning and sanitation requirements of GMP cleaning program</p> <p>1.5 Rectify or report faults before starting work</p> <p>1.6 Confirm services are available and ready for operation</p> <p>1.7 Source and fit personal protective equipment (PPE) according to procedures for health and safety in the workplace</p> <p>1.8 Obtain cleaning consumables to meet anticipated usage patterns</p> <p>1.9 Select and install signs and barricades according workplace procedures</p> <p>1.10 Set the plant for automated cleaning cycle or initiate a manual clean</p>
2. Remove waste	<p>2.1 Collect and dispose of waste according to procedures and legislative requirements for the environment and health and safety in the workplace</p> <p>2.2 Clean and sanitise rubbish bins and insert new replacement bin liners according to workplace procedures</p>
3. Clean and sanitise pharmaceutical processing surfaces	<p>3.1 Change status label of area and equipment and check status prior to cleaning</p> <p>3.2 Remove loose dirt and debris from pharmaceutical processing surfaces prior to applying cleaning treatment</p> <p>3.3 Follow cleaning steps according to workplace procedures</p> <p>3.4 Apply cleaning chemicals to pharmaceutical surfaces according to manufacturers' specifications and workplace procedures</p> <p>3.5 Thoroughly rinse and dry surfaces according to workplace procedures</p> <p>3.6 Apply chemical disinfectants and sanitisers to surfaces according to workplace procedures</p> <p>3.7 Report practices inconsistent with GMP according to workplace procedures</p>
4. Clean and sanitise pharmaceutical processing equipment	<p>4.1 Clean and sanitise processing equipment according to GMP requirements and workplace procedures</p> <p>4.2 Monitor the cleaning process and identify and report deviations from job specifications according to workplace procedures</p> <p>4.3 Inspect and confirm equipment cleanliness status against</p>

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	<p>acceptance criteria and take appropriate action to rectify non-conformances</p> <p>4.4 Confirm relevant sampling or testing methods including sampling or testing points, types of samples and measurements requirements</p> <p>4.5 Take, collect, store and transport samples according to sampling plan, relevant methods and standards</p> <p>4.6 Return equipment to operating order</p> <p>4.7 Record and certify data and information about equipment cleaning and sanitising, including cleaning status, sampling and testing according to workplace procedures and GMP requirements</p>
5. Return plant to operating condition	<p>5.1 Remove signs and barricades according to workplace procedures and work health and safety</p> <p>5.2 Clean, check and store cleaning equipment and PPE according to manufacturers' specifications, environmental and workplace health and safety requirements</p> <p>5.3 Store and dispose of unused chemicals according to manufacturers' specifications, and workplace health and safety requirements</p> <p>5.4 Order and replenish cleaning consumables</p> <p>5.5 Document tasks completed according to workplace procedures</p>

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"> <li>Identify and follow signs, symbols, checklists, production schedules, cleaning schedules and other technical information relevant to cleaning and sanitising facilities and equipment</li> <li>Identify and follow workplace information, specifications and safety data sheets (SDS)</li> <li>Identify and interpret GMP information relevant to cleaning and sanitising facilities and equipment</li> </ul>
Writing	<ul style="list-style-type: none"> <li>Complete checklists, standard forms and reports relating to</li> </ul>

Skill	Description
	practices inconsistent with GMP
Oral communication	<ul style="list-style-type: none"> <li>Use clear language to report contamination risks and practices inconsistent with GMP</li> <li>Participate in verbal exchanges to respond to questions and clarify information</li> </ul>
Numeracy	<ul style="list-style-type: none"> <li>Interpret measurements and numerical symbols in SDSs</li> <li>Record data and information using mathematical symbols and conventions</li> </ul>
Navigate the world of work	<ul style="list-style-type: none"> <li>Recognise and follow workplace requirements, including safety requirements and GMP, associated with own role and area of responsibility</li> </ul>

## Range of Conditions

*This section specifies different work environments and conditions that may affect performance. Essential operating conditions that may be present (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) are included.*

PPE must include:	<ul style="list-style-type: none"> <li>one of the following: <ul style="list-style-type: none"> <li>protective gown</li> <li>scrubs</li> <li>smock</li> <li>statcoat</li> <li>cleanroom coverall</li> <li>disposable coverall</li> </ul> </li> <li>plus all of the following: <ul style="list-style-type: none"> <li>disposable overshoes or cleanroom boots</li> <li>hair net</li> <li>goggles or safety glasses.</li> </ul> </li> </ul>
Waste must include:	<ul style="list-style-type: none"> <li>cleaning material or product waste</li> <li>hazardous waste</li> <li>general processing and laboratory waste.</li> </ul>
Monitoring of the cleaning process must include:	<ul style="list-style-type: none"> <li>chemical strength</li> <li>cycle time(s)</li> <li>temperature</li> <li>contact time</li> <li>rinse water quality.</li> </ul>
Sampling or testing	<ul style="list-style-type: none"> <li>visual inspection</li> </ul>

methods must include:	<ul style="list-style-type: none"><li>• pH tests of final rinse water</li><li>• swabbing of equipment surfaces for presence of contamination.</li></ul>
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## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPPHM3004 Clean and sanitise facilities and equipment	Not applicable	New unit	No equivalent unit

## Links

Companion Volume Implementation Guides are found in VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# Assessment Requirements for FBPPHM3004 Clean and sanitise facilities and equipment

## Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

## Performance Evidence

An individual demonstrating competency must satisfy all of the elements and performance criteria in this unit.

There must be evidence that, the individual has cleaned and sanitised facility surfaces and equipment of at least one manufacturing environment, including:

- accessed cleaning schedules or other workplace information to identify cleaning requirements
- interpreted workplace procedures applicable to cleaning operations, including pictorial and written signs/instructions
- identified soil types present in the following work surfaces, and selected cleaning equipment and agents required to clean the surfaces:
  - floors
  - walls
  - ceilings
  - benches
  - outer surfaces of equipment
  - door handles and door frames
  - light switches
  - vents
  - grills
  - pass-through cabinets
- identified hazards and controlled risks, including contamination hazards encountered in pharmaceutical manufacturing environments
- confirmed supply of necessary cleaning and sanitising equipment and services
- replenished different types of consumables used in cleaning processes<sup>[1]</sup><sub>SEP</sub>
- selected and prepared cleaners and sanitisers according to workplace procedures
- selected, fitted and used personal protective equipment (PPE) required for tasks

- prepared equipment for cleaning according to manufacturers' instructions, including:
  - rendered equipment safe to clean
  - cleared product and waste materials
  - covered motors and instrumentation where steam or water hoses are used
  - dismantled and reassembled equipment parts for cleaning according to operation and maintenance manual
- applied correct cleaning and sanitising procedures to equipment and surfaces
- taken samples and conducted tests according to workplace procedures
- inspected equipment to identify equipment condition and cleanliness
- stored cleaners, sanitisers and related equipment according to workplace procedures.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- responsibilities of cleaning staff and procedures for cleaning teams
- common types of microbiological, physical and chemical contaminants in pharmaceutical processing facilities
- Good Manufacturing Practice (GMP) requirements and role of cleaning and sanitising in preventing contamination of materials and products, and in the protection of personnel and external contractors
- risks associated with cleaning and sanitising operations and cross contamination prevention
- personal hygiene, clothing and footwear requirements,
- clothing storage and disposal for working in and moving between work areas
- terminology relating to chemical cleaning and decontamination, including:
  - cleaners
  - disinfectants
  - sanitisers
  - sterilants
  - fogging
  - fumigation
- services used in a pharmaceutical manufacturing process, including:
  - potable and purified water
  - steam
  - compressed and instrumentation air
- types of cleaning equipment suitable for use in a pharmaceutical processing environment, including their use and storage,
- different cleaning methods:
  - clean-in-place (CIP)
  - clean-out-of place (COP)
  - manual cleaning



- purpose and basic principles of CIP, including the use and functions of caustic and acid solutions, and cleaning sequence and stages
- advantages and disadvantage of automated and semi-automated CIP systems
- types of cleaning equipment include:
  - CIP spray balls
  - bottle brushes
  - disinfecting solutions
  - non-shedding wipes
- hygienic vs unhygienic design features of facilities and equipment, including inserts and dead legs
- the differences between:
  - cleaning
  - disinfecting
  - sanitising
  - sterilising
- properties and functions of different cleaning and sanitising agents for pharmaceutical industry
- different levels of cleaning requirements depending on the reason for cleaning, and whether equipment is dedicated or shared
- the influence of the time between manufacture and cleaning (dirty hold time), and the time between cleaning and use (clean hold time) on a cleaning process
- acceptance criteria used to evaluate cleaning quality, including:
  - how cleaning is measured
  - commonly used sampling and testing
- considerations when choosing and using cleaning chemicals including:
  - the correct selection of chemicals for the surface being cleaned
  - the chemical and physical properties of the soils or residues to be removed
  - the interactions between cleaning chemicals and the surfaces they may adhere to
  - the solubility of the soil/residue in the cleaning solution
  - the need to rotate sanitisers
  - the frequency of cleaning and sanitising
- manual, semi-automated and fully automated cleaning methods
- the variable factors that influence cleaning effectiveness and performance
- critical parameters in a cleaning and sanitising process including:
  - time
  - temperature
  - concentration
  - GMP requirements for the validation of cleaning processes
- waste related to pharmaceutical manufacturing processes, including:
  - cleaning material
  - product waste

- hazardous waste
- general processing and laboratory waste
- waste collection, recycling and handling procedures relevant to own work responsibilities
- procedures for responding to out-of-limits or unacceptable performance or outcomes
- common practices inconsistent with GMP found in cleaning and sanitising operations, including:
  - damage to plant or equipment
  - failure of cleaning regime
  - signs of pest infestation
  - missing or inaccurate records
  - failure to follow workplace procedures
- purpose of keeping records and the recording requirements of GMP, including the legal significance of certifying and verifying GMP records.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - skills must be demonstrated in a commercial pharmaceutical or complementary medicine manufacturing workplace setting or an environment that accurately represents workplace conditions
- resources, equipment and materials:
  - personal protective equipment
  - equipment and surfaces to be cleaned
  - chemicals and/or automated chemical addition system services and their related safety data sheets
  - data collection forms and information recording systems
- specifications:
  - cleaning procedures and related advice on equipment operation that comply with GMP requirements
  - workplace health and safety procedures related to cleaning and sanitising pharmaceutical manufacturing equipment
  - cleaning schedule
  - data collection and information recording requirements and procedures.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## FBPPHM3005 Operate a concentration process

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

### Application

This unit of competency describes the skills and knowledge required to set up, operate, monitor, adjust and shut down a concentration process in a pharmaceutical manufacturing facility.

The unit applies to individuals who apply Good Manufacturing Practice (GMP) and operating principles to the concentration process. Individuals work under broad direction and take responsibility for their own work.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

### Pre-requisite Unit

Nil

### Unit Sector

Pharmaceutical (PHM)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare the concentration equipment and process for operation	1.1 Identify production requirements from workplace documentation 1.2 Confirm materials and services meet production requirements 1.3 Confirm required facilities, storage, equipment and personnel are available

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	1.4 Select and fit personal protective equipment and contamination prevention clothing according to workplace procedures 1.5 Carry out line clearance procedures according to production requirements and equipment operation and maintenance manual 1.6 Follow procedures to eliminate or control the risk of cross-contamination 1.7 Conduct pre-start checks and start up concentration process according to workplace procedures
2. Operate and monitor the concentration process	2.1 Monitor concentration process to confirm that specifications are within required limits 2.2 Identify and report out of limit products or processes according to workplace procedures 2.3 Maintain work area according to workplace cleaning standards 2.4 Conduct process according to safety and environmental requirements 2.5 Complete documentation according to workplace requirements
3. Shut down the concentration process	3.1 Confirm the workplace procedures for shutting down the process 3.2 Safely shut down the process 3.3 Report maintenance requirements according to workplace procedures 3.4 Complete records according to workplace procedures

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"> <li>Identify relevant information from workplace documentation and interpret requirements for a concentration process</li> </ul>
Writing	<ul style="list-style-type: none"> <li>Complete workplace documentation using appropriate language and in required format</li> </ul>

Skill	Description
Numeracy	<ul style="list-style-type: none"> <li>Interpret measurement information to set, monitor and adjust process parameters</li> </ul>
Navigate the world of work	<ul style="list-style-type: none"> <li>Identify workplace procedures relevant to own role</li> </ul>
Interact with others	<ul style="list-style-type: none"> <li>Report operational and safety information to relevant personnel using required communication method</li> </ul>
Get the work done	<ul style="list-style-type: none"> <li>Plan, organise and implement tasks required to achieve production outcomes</li> <li>Use problem-solving skills to analyse product and process faults and decide on appropriate action</li> </ul>

## Range of Conditions

*This section specifies different work environments and conditions that may affect performance. Essential operating conditions that may be present (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) are included.*

Pre-start checks must include:	<ul style="list-style-type: none"> <li>carrying out required area or line clearances</li> <li>inspecting equipment condition to identify signs of wear</li> <li>confirming all safety equipment is in place and operational</li> <li>confirming that equipment is clean or sanitised</li> <li>confirming that equipment is correctly configured for processing requirements.</li> </ul>
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## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPPHM3005 Operate a concentration process	FDFPH2002A Operate a concentration process	<p>Updated to meet Standards for Training Packages</p> <p>Changes to performance criteria for clarity</p> <p>Code changed to reflect AQF alignment</p>	Equivalent unit

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## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## Assessment Requirements for FBPPHM3005 Operate a concentration process

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

### Performance Evidence

An individual demonstrating competency in this unit must satisfy all the elements and performance criteria of this unit.

There must be evidence that the individual has safely operated at least one concentration process, including:

- confirmed production requirements and related facilities, storage and equipment
- selected, fitted and correctly used one of the following:
  - protective gown
  - scrubs
  - smock
  - statcoat
  - disposable coverall
- selected, fitted and correctly used personal protective equipment and contamination prevention clothing, including:
  - disposable overshoes
  - hair net
- performed batch and product changeovers, including line clearance procedures
- conducted pre-start checks required for safe operation of the concentration process, including all of the following:
  - carrying out required area or line clearances
  - inspecting equipment condition to identify signs of wear
  - confirming all safety equipment is in place and operational
  - confirming that equipment is clean or sanitised
  - confirming that equipment is correctly configured for processing requirements
- started, operated, monitored and adjusted a concentration process to achieve required outcomes
- conducted in-process control checks to confirm the process remains within limits

- calculated yields and determined the number of passes required to ensure concentration is within specification
- inspected product for defects
- taken corrective action in response to a non-conformance
- safely shut down the process according to workplace procedures
- cleaned and maintained work area to meet workplace cleaning standards and environmental requirements
- completed records according to workplace procedures.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- types of pharmaceutical concentration processes
- stages of a concentration process, including:
  - the purpose, methods and outcomes of each stage
  - the effect of process parameters on each stage
- basic operating principles, requirements and parameters of concentration process equipment, including:
  - main equipment components, operating capacities and applications
  - typical equipment faults and related causes, including signs and symptoms of faulty equipment and early warning signs of potential problems
  - corrective actions required where operation is outside specified operating parameters
- services used in a concentration process, including:
  - potable and purified water
  - steam
  - compressed and instrumentation air
  - vacuum
- line clearance procedures, including procedures for clearing feed lines
- workplace health and safety hazards, risks and controls relevant to a concentration process, including:
  - use of solvents
  - functions and limitations of personal protective equipment and contamination prevention clothing
- pre-start check requirements including:
  - carrying out required area or line clearances
  - inspecting equipment condition to identify signs of wear
  - confirming all safety equipment is in place and operational
  - confirming that equipment is clean or sanitised
  - confirming that equipment is correctly configured for processing requirements
- methods used to monitor concentration process, including inspecting, measuring and testing



- product and process specifications, procedures and operating parameters for different products and materials
- quality requirements of materials and the effect of variations on the concentration process
- contamination risks associated with the concentration process
- common causes of out-of-specification product or process and corrective actions required
- concentration process shutdown procedures and responsibilities
- Good Manufacturing Practice (GMP) requirements associated with a concentration process and related control measures
- environmental issues and controls relevant to the concentration process, including waste collection and handling procedures
- requirements for completion of workplace documentation.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - a pharmaceutical manufacturing workplace or an environment that accurately represents workplace conditions
- resources, equipment and materials:
  - personal protective equipment and contamination prevention clothing
  - liquid extracts to be concentrated
  - concentration equipment, materials and services
  - cleaning materials and equipment associated with a concentration process
  - record keeping system
- specifications:
  - specifications, control points and processing parameters
  - recording requirements and procedures
  - workplace documentation relating to concentration process and procedures that comply with GMP requirements
  - cleaning procedures associated with a concentration process.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## FBPPHM3006 Operate an extraction process

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

### Application

This unit of competency describes the skills and knowledge required to set up, operate, adjust and shut down an extraction process used to extract phytochemicals from plant materials using solvents in a pharmaceutical manufacturing facility.

The unit applies to individuals who apply Good Manufacturing Practice (GMP) and operating principles to the extraction process. Individuals work under broad direction and take responsibility for their own work.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

### Pre-requisite Unit

Nil

### Unit Sector

Pharmaceutical (PHM)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare the extraction equipment and process for operation	1.1 Confirm, blend and prepare materials to meet production requirements 1.2 Confirm required facilities, storage, equipment and personnel are available 1.3 Select and fit personal protective equipment and contamination

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	prevention clothing according to workplace procedures 1.4 Carry out line clearance procedures according to production requirements and equipment operation and maintenance manual 1.5 Follow procedures to eliminate or control the risk of cross-contamination 1.6 Conduct pre-start checks according to workplace procedures 1.7 Load material into percolator and add solvents according to specifications
2. Operate and monitor the extraction process	2.1 Start up and monitor extraction process to confirm that specifications are within required limits 2.2 Identify and report out of limit products or processes according to workplace procedures 2.3 Maintain work area according to workplace cleaning standards 2.4 Conduct process according to safety and environmental requirements 2.5 Complete documentation according to workplace requirements
3. Shut down the extraction process	3.1 Confirm workplace procedures for shutting down the process 3.2 Safely shut down the process 3.3 Complete records according to workplace procedures

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"> <li>Identify relevant information from workplace documentation and interpret requirements for the extraction process</li> </ul>
Writing	<ul style="list-style-type: none"> <li>Complete workplace documentation using appropriate language and in required format</li> </ul>
Numeracy	<ul style="list-style-type: none"> <li>Interpret specifications for rate and amount of solvent addition</li> </ul>

Skill	Description
Navigate the world of work	<ul style="list-style-type: none"><li>Identify workplace procedures relevant to own role</li></ul>
Interact with others	<ul style="list-style-type: none"><li>Report operational and safety information to relevant personnel using required communication method</li></ul>
Get the work done	<ul style="list-style-type: none"><li>Plan, organise and implement tasks required to achieve production outcomes</li><li>Use problem-solving skills to analyse product and process faults and decide on appropriate action</li></ul>

## Range of Conditions

*This section specifies different work environments and conditions that may affect performance. Essential operating conditions that may be present (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) are included.*

Pre-start checks must include:	<ul style="list-style-type: none"><li>carrying out required area or line clearances</li><li>inspecting equipment condition to identify signs of wear</li><li>confirming all safety equipment is in place and operational</li><li>confirming that equipment is clean or sanitised</li><li>confirming that equipment is correctly configured for processing requirements</li></ul>
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## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPPHM3006 Operate an extraction process	FDFPH2003A Operate an extraction process	Updated to meet Standards for Training Packages  Changes to performance criteria for clarity  Code changed to reflect AQF alignment	Equivalent unit

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# Assessment Requirements for FBPPHM3006 Operate an extraction process

## Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

## Performance Evidence

An individual demonstrating competency in this unit must satisfy all the elements and performance criteria of this unit.

There must be evidence that the individual has safely operated at least one extraction process, including:

- confirmed production requirements and related facilities, storage and equipment
- selected, fitted and correctly used one of the following:
  - protective gown
  - scrubs
  - smock
  - statcoat
  - disposable coverall
- selected, fitted and correctly used personal protective equipment and contamination prevention clothing, including:
  - disposable overshoes
  - hair net
- performed batch and product changeovers, including line clearance procedures
- conducted pre-start checks required for the safe operation of the extraction process, including:
  - carrying out required area or line clearances
  - inspecting equipment condition to identify signs of wear
  - confirming all safety equipment is in place and operational
  - confirming that equipment is clean or sanitised
  - confirming that equipment is correctly configured for processing requirements
- started, operated, monitored and adjusted a process to achieve required outcomes
- conducted in-process control checks to confirm the process remains within limits
- inspected product for defects
- taken corrective action in response to a non-conformance

- safely shut down the process according to workplace procedures
- cleaned and maintained work area to meet workplace cleaning standards and environmental requirements
- completed records according to workplace procedures.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- stages of the extraction process, including:
  - the purpose, methods and outcomes of each stage
  - the effect of herb density on filtration
  - packing processes required for different types of herbs
- basic operating principles, requirements and parameters of extraction process equipment, including:
  - main equipment components, operating capacities and applications
  - typical equipment faults and related causes, including signs and symptoms of faulty equipment and early warning signs of potential problems
  - corrective actions required where operation is outside specified operating parameters
- line clearance procedures, including procedures for clearing feed lines
- workplace health and safety hazards, risks and controls relevant to an extraction process, including:
  - use of solvents
  - functions and limitations of personal protective equipment and contamination prevention clothing
- pre-start check requirements, including:
  - carrying out required area or line clearances
  - inspecting equipment condition to identify signs of wear
  - confirming all safety equipment is in place and operational
  - confirming that equipment is clean or sanitised
  - confirming that equipment is correctly configured for processing requirements
- methods used to monitor extraction process, including:
  - inspecting
  - measuring
  - testing
  - calculating yields
- quality requirements of materials and the effect of variations on the extraction process
- product and process specifications, procedures and operating parameters for different products and materials
- contamination risks associated with the extraction process
- common causes of out-of-specification product or process and corrective actions required
- extraction process shutdown and changeover procedures and responsibilities

- Good Manufacturing Practice (GMP) requirements associated with an extraction process and related control measures
- environmental issues and controls relevant to the extraction process, including waste collection and handling procedures
- requirements for completion of workplace documentation.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - a pharmaceutical manufacturing workplace or an environment that accurately represents workplace conditions
- resources, equipment and materials:
  - personal protective equipment and contamination prevention clothing
  - extraction solvents, material and equipment
  - cleaning materials and equipment associated with an extraction process
  - record keeping system
- specifications:
  - specifications, control points and processing parameters
  - recording requirements and procedures
  - workplace documentation relating to an extraction process and procedures that comply with GMP requirements
  - cleaning procedures associated with an extraction process.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>



## FBPPHM3007 Operate a separation process using chromatography

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

### Application

This unit of competency describes the skills and knowledge required to set up, operate, adjust and shut down a chromatography separation process in a pharmaceutical manufacturing facility.

The unit applies to individuals who use Good Manufacturing Practice (GMP) and operating principles in the chromatography separation process. Individuals work under broad direction and take responsibility for their own work.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

### Pre-requisite Unit

Nil

### Unit Sector

Pharmaceutical (PHM)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare chromatography equipment for operation	1.1 Identify production requirements from workplace documentation 1.2 Confirm materials meet production requirements 1.3 Confirm required facilities, storage, equipment and personnel are available

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	1.4 Select and fit personal protective equipment and contamination prevention clothing according to workplace procedures 1.5 Clean, assemble and adjust equipment according to workplace procedures and operation and maintenance manual 1.6 Set equipment components and related instrumentation to meet production requirements 1.7 Conduct pre-start checks according to workplace procedures 1.8 Complete equipment status reports according to workplace procedures
2. Prepare samples and load products	2.1 Conduct pre-sampling tests and interpret test results to confirm column operation 2.2 Identify and report out of limit test results according to workplace procedures 2.3 Load product into columns according to specifications and production requirements
3. Operate and monitor separation process	3.1 Start up and monitor separation process to confirm process cycles occur in correct sequence according to specifications and production requirements 3.2 Identify and report out of limit products or processes according to workplace procedures 3.3 Confirm separation of solution meets specifications 3.4 Conduct process according to safety and environmental requirements 3.5 Complete documentation according to workplace requirements
4. Shut down separation process	4.1 Confirm the workplace procedures for shutting down the process 4.2 Safely shut down the process 4.3 Complete records according to workplace procedures

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"> <li>Identify relevant information from workplace documentation and interpret requirements for the chromatography separation process</li> </ul>
Writing	<ul style="list-style-type: none"> <li>Complete workplace documentation using appropriate language and in required format</li> </ul>
Numeracy	<ul style="list-style-type: none"> <li>Interpret specifications for number of cycles and flow meters</li> </ul>
Navigate the world of work	<ul style="list-style-type: none"> <li>Identify workplace procedures relevant to own role</li> </ul>
Interact with others	<ul style="list-style-type: none"> <li>Report operational and safety information to relevant personnel using required communication method</li> </ul>
Get the work done	<ul style="list-style-type: none"> <li>Plan, organise and implement tasks required to achieve production outcomes</li> <li>Use problem-solving skills to analyse product and process faults and decide on appropriate action</li> </ul>

## Range of Conditions

*This section specifies different work environments and conditions that may affect performance. Essential operating conditions that may be present (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) are included.*

Pre start checks must include:	<ul style="list-style-type: none"> <li>carrying out required area or line clearances</li> <li>inspecting equipment condition to identify signs of wear</li> <li>confirming all safety equipment is in place and operational</li> <li>confirming that equipment is clean or sanitised</li> <li>confirming that equipment is correctly configured for processing requirements</li> </ul>
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## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPPHM3007 Operate a separation process using chromatography	FDFPH2004A Operate a separation process using chromatography	Updated to meet Standards for Training Packages  Changes to performance criteria	Equivalent unit

		for clarity Code changed to reflect AQF alignment	
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## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## Assessment Requirements for FBPPHM3007 Operate a separation process using chromatography

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

### Performance Evidence

An individual demonstrating competency in this unit must satisfy all the elements and performance criteria of this unit.

There must be evidence that the individual has safely operated at least one separation process using chromatography, including:

- accessed workplace information to confirm requirements for the process
- selected, fitted and used personal protective equipment and contamination prevention clothing
- conducted pre-start checks required for the safe operation of a chromatography separation process, including:
  - carrying out required area or line clearances
  - inspecting equipment condition to identify signs of wear
  - confirming all safety equipment is in place and operational
  - confirming that equipment is clean or sanitised
  - confirming that equipment is correctly configured for processing requirements
- performed procedures for loading and packing product into columns
- started, operated, monitored and adjusted a process to achieve required outcomes
- conducted in-process control checks to confirm the process remains within limits
- maintained security, integrity and traceability of:
  - samples
  - sub-samples
  - documentation
- followed isolation and lock out procedures to take process and related equipment off-line in preparation for cleaning and maintenance according to workplace procedures
- performed product and process changeovers, including demonstrating column storage procedures
- taken corrective action in response to out-of-specification results

- safely shut down the process according to workplace procedures
- cleaned and maintained work area to meet workplace cleaning standards and environmental requirement
- completed records according to workplace procedures.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- stages of the chromatography separation process, including:
  - the purpose, methods and outcomes of each stage
  - quality characteristics achievable by the separation process
  - methods of analysis
- basic operating principles, requirements and parameters of chromatography equipment, including:
  - main equipment components, operating capacities and applications
  - consequences of incorrect equipment preparation, such as incorrectly positioned non-return valve, supply pump failure and air in the column
  - typical equipment faults and related causes, including signs and symptoms of faulty equipment and early warning signs of potential problems
- line clearance cleaning and sanitation procedures
- functions and limitations of personal protective equipment and contamination prevention clothing pre-start checks requirements, including:
  - carrying out required area or line clearances
  - inspecting equipment condition to identify signs of wear
  - confirming all safety equipment is in place and operational
  - confirming that equipment is clean or sanitised
  - confirming that equipment is correctly configured for processing requirements
- sample test methods, including:
  - typical tests such as Height Equivalent to Theoretical Plate (HETP) test
  - analysis and interpretation of results
  - implications and actions taken if results are out-of-specification
- procedures used for:
  - collecting fractions as appropriate to columns and process requirements
  - identifying traces and corrective action where traces are not within specifications
  - ensuring product segregation
- typical profile for a product cycle and events to be monitored during the cycle
- common causes of out-of-specification product or process and corrective actions required
- procedures and requirements of different shutdowns, including:
  - an understanding of the requirements for column storage
  - emergency and routine shutdowns

- procedures to follow in the event of power outage
- isolation, lock out and tag out procedures and responsibilities
- Good Manufacturing Practice (GMP) requirements associated with a separation process and related control measures
- requirements for completion of workplace documentation.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - a pharmaceutical manufacturing workplace or an environment that accurately represents workplace conditions
- resources, equipment and materials:
  - personal protective equipment and contamination prevention clothing
  - chromatography equipment
  - a typical range of samples to be tested
  - cleaning materials and equipment associated with a separation process using chromatography
  - record keeping system
- specifications:
  - product specifications, control points and processing parameters
  - recording requirements and procedures
  - workplace documentation relating to separation process and procedures that comply with GMP requirements
  - cleaning procedures associated with a separation process using chromatography.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# FBPPHM3008 Operate an aseptic fill and seal process

## Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

## Application

This unit of competency describes the skills and knowledge required to set up, operate, monitor, adjust and shut down an aseptic fill and seal process within a graded cleanroom environment in a pharmaceutical manufacturing facility.

The unit applies to individuals who apply Good Manufacturing Practice (GMP) requirements and operation principles to the aseptic fill and seal process. Individuals work under broad direction and take responsibility for their own work.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

## Pre-requisite Unit

Nil

## Unit Sector

Pharmaceutical (PHM)

## Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Set up filling and sealing process	1.1 Identify production requirements from workplace documentation 1.2 Confirm materials, packaging components and consumables are available to meet batch and production requirements 1.3 Confirm required facilities and equipment are available



Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	<p>1.4 Source and fit cleanroom garments and personal protective equipment according to workplace gowning standard operating procedures (SOP)</p> <p>1.5 Maintain sterile quality of the gown according to workplace gowning SOP</p> <p>1.6 Fit and adjust machine components and attachments according to production requirements and equipment operation and maintenance manual</p> <p>1.7 Enter processing and operating parameters according to safety and production requirements</p> <p>1.8 Check and adjust equipment performance according to equipment operating procedures</p> <p>1.9 Conduct pre-start checks according to workplace procedures</p>
2. Operate and monitor a filling and sealing process	<p>2.1 Start up and monitor aseptic fill and seal process to confirm products are within required limits</p> <p>2.2 Monitor packaging quality and seal integrity to confirm that specifications are met</p> <p>2.3 Identify and report out of limit products or processes according to workplace procedures</p> <p>2.4 Maintain work area according to workplace cleaning standards</p> <p>2.5 Maintain consistent aseptic techniques</p> <p>2.6 Conduct process and sampling according to safety requirements and environmental monitoring procedures</p> <p>2.7 Contain, remove and report spillages according to procedures</p> <p>2.8 Complete documentation according to workplace requirements</p>
3. Shut down filling and sealing process	<p>3.1 Confirm the workplace procedures for shutting down the process</p> <p>3.2 Complete end-of-batch procedures according to batch instructions</p> <p>3.3 Safely shut down the process</p> <p>3.4 Clean sealing equipment according to workplace procedures</p> <p>3.5 De-gown according to workplace gowning SOP</p> <p>3.6 Complete records according to workplace procedures</p>

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"> <li>Identify relevant information from workplace documentation, standard operating procedures and batch instructions and interpret requirements for the aseptic fill and seal process</li> </ul>
Writing	<ul style="list-style-type: none"> <li>Complete workplace documentation using appropriate language and in required format</li> </ul>
Numeracy	<ul style="list-style-type: none"> <li>Confirm process specifications for flow rates, temperature, fill levels, weights and volumes</li> </ul>
Navigate the world of work	<ul style="list-style-type: none"> <li>Identify workplace requirements, including safety requirements and GMP requirements, associated with own role</li> </ul>
Interact with others	<ul style="list-style-type: none"> <li>Report operational and safety information to relevant personnel using required communication method</li> </ul>
Get the work done	<ul style="list-style-type: none"> <li>Use problem-solving skills to analyse product and process faults and decide on appropriate action</li> </ul>

## Range of Conditions

*This section specifies different work environments and conditions that may affect performance. Essential operating conditions that may be present (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) are included.*

Cleanroom garments and personal protective equipment must include:	<ul style="list-style-type: none"> <li>coverall</li> <li>disposable and/or reusable: <ul style="list-style-type: none"> <li>surgical or elastic gloves</li> <li>face masks</li> <li>hair nets and hoods</li> <li>beard/moustache covers</li> <li>goggles or glasses</li> <li>overshoes or cleanroom boots and/or shoe covers.</li> </ul> </li> </ul>
Pre-start checks must include:	<ul style="list-style-type: none"> <li>carrying out required area or line clearances</li> <li>inspecting equipment condition to identify signs of</li> </ul>

	<p>wear</p> <ul style="list-style-type: none"><li>• confirming all safety equipment is in place and operational confirming that equipment is clean or sanitised</li><li>• confirming that equipment is correctly configured for processing requirements.</li></ul>
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## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPPHM3008 Operate an aseptic fill and seal process	FDFPH2005A Operate an aseptic fill and seal process	Updated to meet Standards for Training Packages  Changes to performance criteria for clarity  Code changed to reflect AQF alignment	Equivalent unit

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## Assessment Requirements for FBPPHM3008 Operate an aseptic fill and seal process

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

### Performance Evidence

An individual demonstrating competency in this unit must satisfy all the elements and performance criteria of this unit.

There must be evidence that the individual has operated at least one aseptic fill and seal process, including:

- accessed workplace information to confirm production requirements for the aseptic fill and seal process
- confirmed supply of necessary materials, packaging components and consumables for the aseptic fill and seal process
- selected, fitted and used cleanroom garments and personal protective equipment including gowning and de-gowning
- maintained the sterile quality of the gown after performance of gowning procedures and aseptic process by microbiological surface sampling of several locations on gown
- followed required work area entry and exit procedures and moved around the work area in a manner that does not generate additional contaminants
- conducted pre-start checks required for the safe operation of the aseptic fill and seal process, including:
  - carrying out required area or line clearances
  - inspecting equipment condition to identify signs of wear
  - confirming all safety equipment is in place and operational
  - confirming that equipment is clean or sanitised
  - confirming that equipment is correctly configured for processing requirements
- started, operated, monitored and adjusted aseptic fill and seal process equipment to achieve required outcomes, including:
  - supply and flow of materials to and from process
  - flow rates
  - weights and volumes
  - fill levels
  - temperature, including materials and sealing temperatures

- supply of packaging components and consumables
- container closure integrity
- conducted in-process control checks to confirm the process remains within limits
- inspected units for defects
- taken corrective action in response to a non-conformance
- maintained consistent aseptic techniques
- followed end-of-batch procedures, including:
  - line clearance and cleaning
  - yield calculation
  - materials reconciliation
  - product labelling
- safely shut down the process according to workplace procedures
- cleaned and maintained work area to meet workplace cleaning standards and environmental requirements
- completed records according to workplace procedures.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- stages of the aseptic fill and seal process, including:
  - the purpose, methods and outcomes of each stage
  - control points
- how the flow of an aseptic fill and seal process affects outputs on downstream processes
- quality characteristics to be achieved by the aseptic fill and seal process, including:
  - quality requirements of packaging components and consumables
  - sterilisation requirements and procedures
  - fill volume by levels and weights
  - requirements of seal formation and integrity
  - importance of maintaining sterile product
  - integrity testing procedures
- principles of filling and sealing, including properties of packaging materials used
- principles of heat sterilisation
- the effect of heat sterilisation on microbiological characteristics of product, packaging materials, and a filling process
- aseptic container preparation, handling and loading
- functions and limitations of cleanroom garments and personal protective clothing and equipment
- gowning and de-gowning techniques
- cleanroom behaviour and hygiene
- aseptic techniques
- microbiology applicable to aseptic fill and seal process

- basic operating principles, requirements and parameters of aseptic filling and sealing equipment, including:
  - main equipment components, operating capacities and applications
  - typical faults and related causes, including signs and symptoms of faulty equipment and early warning signs of potential problems
  - status and purpose of guards
  - the purpose and location of sensors and related feedback instrumentation
  - corrective actions taken where operation is outside specified operating parameters
- operating principles of process control, including the relationship between control panels, systems and physical equipment
- pre-start checks requirements, including:
  - carrying out required area or line clearances
  - inspecting equipment condition to identify signs of wear
  - confirming all safety equipment is in place and operational
  - confirming that equipment is clean or sanitised
  - confirming that equipment is correctly configured for processing requirements
- methods used to monitor an aseptic fill and seal process, including:
  - inspecting
  - measuring
  - testing
  - product, packaging and process changeover procedures and responsibilities
- common causes of out-of-specification product or process and corrective actions required, including the effect of variations in both product and packaging components or consumables on filling and sealing performance
- end-of-batch procedures, including:
  - calculating yield
  - materials reconciliation
  - product labelling
  - actions required if yield or reconciliation is not within prescribed limits
- requirements of different shutdowns, including:
  - emergency and routine shutdowns
  - procedures to follow in the event of a power outage
- line clearance procedures, including cleaning and sanitation procedures
- isolation, lock out and tag out procedures and responsibilities
- Good Manufacturing Practice (GMP) requirements associated with aseptic fill and seal process and related control measures
- environmental issues and controls relevant to the aseptic fill and seal process, including waste collection and handling procedures
- requirements for completion of workplace documentation.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - a pharmaceutical workplace or an environment that accurately represents workplace conditions
- resources, equipment and materials:
  - cleanroom garments and personal protective equipment
  - aseptic fill and seal process equipment
  - materials, packaging components and consumables for an aseptic fill and seal process
  - microbiological surface sampling tools (touch plates)
  - microbiological growth medium for process simulation (media fill)
  - environmental monitoring equipment
  - cleaning materials and equipment associated with aseptic fill and seal process
  - record keeping system
- specifications:
  - batch instructions including product specifications, control points and processing parameters
  - recording requirements and procedures
  - workplace documentation relating to aseptic fill and seal process and procedures that comply with GMP requirements
  - information on equipment capacity and operating parameters
  - microbiological surface sampling limits for gown locations
  - cleaning and environmental monitoring procedures associated with aseptic fill and seal process.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# FBPPHM3009 Operate an aseptic form, fill and seal process

## Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

## Application

This unit of competency describes the skills and knowledge required to set up, operate, adjust and shut down an aseptic form, fill and seal process within a graded cleanroom environment in a pharmaceutical manufacturing facility.

The unit applies to individuals who use Good Manufacturing Practice (GMP) requirements and operation principles in the aseptic form, fill and seal process. Individuals work under broad direction and take responsibility for their own work.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

## Pre-requisite Unit

Nil

## Unit Sector

Pharmaceutical (PHM)

## Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Set up form, fill and seal process	1.1 Identify production requirements from workplace documentation 1.2 Confirm materials, packaging components and consumables are available to meet batch and production requirements 1.3 Confirm required facilities and equipment are available



Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	<p>1.4 Source and fit cleanroom garments and personal protective equipment according to workplace gowning standard operating procedures (SOP)</p> <p>1.5 Maintain contamination free gloves and gown according to workplace gowning SOP</p> <p>1.6 Fit and adjust machine components and attachments according to production requirements and equipment operation and maintenance manual</p> <p>1.7 Enter processing and operating parameters according to safety and production requirements</p> <p>1.8 Check and adjust equipment performance according to equipment operating procedures</p> <p>1.9 Conduct pre-start checks according to workplace procedures</p>
2. Operate and monitor a form, fill and seal process	<p>2.1 Start up and monitor aseptic form, fill and seal process to confirm products are within required limits</p> <p>2.2 Monitor packaging quality and seal integrity to confirm that specifications are met</p> <p>2.3 Identify and report out of limit products or processes according to workplace procedures</p> <p>2.4 Maintain work area according to workplace cleaning standards</p> <p>2.5 Maintain consistent aseptic techniques</p> <p>2.6 Conduct process and sampling according to safety requirements and environmental monitoring procedures</p> <p>2.7 Contain, remove and report spillages according to SOP</p> <p>2.8 Complete documentation according to workplace requirements</p>
3. Shut down a form, fill and seal process	<p>3.1 Confirm the workplace procedures for shutting down the process</p> <p>3.2 Complete end-of-batch procedures according to batch instructions</p> <p>3.3 Safely shut down the process</p> <p>3.4 Clean sealing equipment according to workplace procedures</p> <p>3.5 De-gown according to workplace gowning SOP</p> <p>3.6 Complete records according to workplace procedures</p>

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"> <li>Identify relevant information from workplace documentation, standard operating procedures and batch instructions and interpret requirements for the aseptic form, fill and seal process</li> </ul>
Writing	<ul style="list-style-type: none"> <li>Complete workplace documentation using appropriate language and in required format</li> </ul>
Numeracy	<ul style="list-style-type: none"> <li>Confirm process specifications for flow rates, temperature, fill levels, weights, volumes, pressure and wall thickness</li> </ul>
Navigate the world of work	<ul style="list-style-type: none"> <li>Identify workplace requirements, including safety requirements and GMP requirements, associated with own role</li> </ul>
Interact with others	<ul style="list-style-type: none"> <li>Report operational and safety information to relevant personnel using required communication method</li> </ul>
Get the work done	<ul style="list-style-type: none"> <li>Use problem-solving skills to analyse product and process faults and decide on appropriate action</li> </ul>

## Range of Conditions

*This section specifies different work environments and conditions that may affect performance. Essential operating conditions that may be present (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) are included.*

Cleanroom garments and personal protective equipment must include:	<ul style="list-style-type: none"> <li>coverall</li> <li>disposable and/or reusable:             <ul style="list-style-type: none"> <li>surgical or elastic gloves</li> <li>face masks</li> <li>hair nets and hoods</li> <li>beard/moustache covers</li> <li>goggles or glasses</li> <li>overshoes or cleanroom boots and/or shoe covers.</li> </ul> </li> </ul>
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Pre-start checks must include:	<ul style="list-style-type: none"><li>• carrying out required area or line clearances</li><li>• inspecting equipment condition to identify signs of wear</li><li>• confirming all safety equipment is in place and operational</li><li>• confirming that equipment is clean or sanitised</li><li>• confirming that equipment is correctly configured for processing requirements</li></ul>
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## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPPHM3009 Operate an aseptic form, fill and seal process	FDFPH2006A Operate an aseptic form, fill and seal process	Updated to meet Standards for Training Packages  Changes to performance criteria for clarity  Code changed to reflect AQF alignment	Equivalent unit

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# Assessment Requirements for FBPPHM3009 Operate an aseptic form, fill and seal process

## Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

## Performance Evidence

An individual demonstrating competency in this unit must satisfy all the elements and performance criteria of this unit.

There must be evidence that the individual has operated at least one aseptic form, fill and seal process, including:

- accessed workplace information to confirm production requirements for the aseptic form, fill and seal process
- confirmed supply of necessary materials, packaging components and consumables for the aseptic form, fill and seal process
- selected, fitted and used cleanroom garments and personal protective equipment including gowning and de-gowning
- maintained the sterile quality of the gown after performance of gowning procedures and aseptic process by microbiological surface sampling of several locations on gown
- followed required work area entry and exit procedures and moved around the work area in a manner that does not generate additional contaminants
- conducted pre-start checks required for the safe operation of the aseptic form, fill and seal process, including:
  - carrying out required area or line clearances
  - inspecting equipment condition to identify signs of wear
  - confirming all safety equipment is in place and operational
  - confirming that equipment is clean or sanitised
  - confirming that equipment is correctly configured for processing requirements
- started, operated, monitored and adjusted aseptic form, fill and seal process equipment to achieve required outcomes, including:
  - container formation and appearance
  - supply and flow of materials to and from process and pressure
  - flow rates
  - weights and volumes
  - fill levels

- temperature, including materials and sealing temperatures
- supply of packaging components and consumables
- container closure integrity
- conducted in-process control checks to confirm the process remains within limits
- inspected units for defects
- taken corrective action in response to a non conformance
- maintained consistent aseptic techniques
- followed end-of-batch procedures, including:
  - line clearance and cleaning
  - loss of sterility
  - filler integrity testing
  - yield calculation
  - materials reconciliation
  - environmental monitoring
  - product labelling
  - actions required if yield or reconciliation is not within prescribed limits
- safely shut down the process according to workplace procedures
- cleaned and maintained work area to meet workplace cleaning standards and environmental requirements
- completed records according to workplace procedures.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- stages of the aseptic form, fill and seal process, including:
  - the purpose, methods and outcomes of each stage
  - control points
  - principles of filling and sealing, including properties of packaging materials used
  - the form process
  - principles of heat sterilisation
  - the effect of heat sterilisation on microbiological characteristics of product and packaging materials, and a filling process
  - flow of an aseptic form, fill and seal process and the effect of outputs on downstream processes
- quality characteristics to be achieved by the aseptic form, fill and seal process, including:
  - quality requirements of packaging components and consumables
  - sterilisation requirements and procedures
  - fill volume by levels and weights
  - internal and external leakers
  - appearance, including; legibility of embossing, burnt polymer and streaking

- requirements of seal formation and integrity
- importance of maintaining sterile product
- integrity testing procedures
- aseptic container preparation and forming, filling and sealing requirements
- basic operating principles, requirements and parameters of aseptic form, filling and sealing equipment, including:
  - main components, operating capacities and applications
  - typical equipment faults and related causes, including signs and symptoms of faulty equipment and early warning signs of potential problems
  - status and purpose of guards
  - the purpose and location of sensors and related feedback instrumentation
  - corrective actions taken where operation is outside specified operating parameters
- common causes of out-of-specification product or process and corrective actions required, including the effect of variations in both product and packaging components or consumables on form, filling and sealing performance
- functions and limitations of cleanroom garments and personal protective clothing and equipment, including:
  - sterile gowns
  - surgical or elastic gloves
  - face masks
  - hair nets or sterile hoods
  - beard/moustache covers
  - protective goggles or glasses
  - sterile disposable overshoes, cleanroom boots and shoe covers
- gowning and de-gowning techniques
- cleanroom behaviour and hygiene
- aseptic technique
- microbiology applicable to aseptic form, fill and seal process
- pre-start checks requirements, including:
  - carrying out required area or line clearances
  - inspecting equipment condition to identify signs of wear
  - confirming all safety equipment are in place and operational
  - confirming that equipment is clean or sanitised
  - confirming that equipment is correctly configured for processing requirements
- methods used to monitor an aseptic form, fill and seal process, including:
  - inspecting
  - measuring
  - testing
- product, packaging and process changeover procedures and responsibilities
- end-of-batch procedures, including:
  - line clearance and cleaning

- loss of sterility
- filler integrity testing
- calculating yield
- materials reconciliation
- environmental monitoring
- product labelling
- actions required if yield or reconciliation is not within prescribed limits
- requirements of different shutdowns, including:
  - emergency and routine shutdowns
  - procedures to follow in the event of a power outage
- line clearance procedures, including cleaning and sanitation procedures
- isolation, lock out and tag out procedures and responsibilities
- operating principles of process control, including the relationship between control panels, systems and physical equipment
- Good Manufacturing Practice (GMP) requirements associated with aseptic form, fill and seal process and related control measures
- environmental issues and controls relevant to the aseptic form, fill and seal process, including:
  - particle count specification
  - waste collection and handling procedures
- requirements for completion of workplace documentation.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - a pharmaceutical workplace or an environment that accurately represents workplace conditions
- resources, equipment and materials:
  - cleanroom garments and personal protective equipment
  - aseptic form, fill and seal process equipment
  - materials, packaging components and consumables for an aseptic form, fill and seal process
  - microbiological surface sampling tools (touch plates)
  - microbiological growth medium for process simulation (media fill)
  - environmental monitoring equipment
  - cleaning materials and equipment associated with aseptic form, fill and seal process
  - record keeping system
- specifications:
  - batch instructions including specifications, control points and processing parameters
  - recording requirements and procedures

- workplace documentation relating to aseptic fill and seal process and procedures that comply with GMP requirements information on equipment capacity and operating parameters
- microbiological surface sampling limits for gown locations
- cleaning and environmental monitoring procedures associated with aseptic form, fill and seal process.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>



## FBPPHM3010 Operate a compressing process

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

### Application

This unit of competency describes the skills and knowledge required to set up, operate, adjust and shut down a tablet compressing process in a pharmaceutical manufacturing facility.

The unit applies to individuals who apply Good Manufacturing Practice (GMP) and operating principles to the compressing process. Individuals work under broad direction and take responsibility for their own work.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

### Pre-requisite Unit

Nil

### Unit Sector

Pharmaceutical (PHM)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare the compressing process for operation	1.1 Confirm materials and equipment are available and meet production requirements 1.2 Select and fit personal protective equipment and contamination prevention clothing according to workplace procedures 1.3 Fit and adjust machine components and attachments according to production requirements and equipment operation

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	<p>and maintenance manual</p> <p>1.4 Enter processing and operating parameters according to safety and production requirements</p> <p>1.5 Conduct pre-start checks according to workplace requirements</p>
2. Operate and monitor the compressing process	<p>2.1 Start up and monitor compressing process to confirm specifications are within required limits</p> <p>2.2 Identify and report out of limit tablet products or processes according to workplace procedures</p> <p>2.3 Maintain work area according to workplace cleaning standards</p> <p>2.4 Conduct process according to safety and environmental requirements</p> <p>2.5 Contain, remove and report spillages according to workplace procedures</p> <p>2.6 Complete documentation according to workplace requirements</p>
3. Shut down the compressing process	<p>3.1 Confirm the workplace procedures for shutting down the process</p> <p>3.2 Complete end-of-batch procedures according to batch instructions and workplace procedures</p> <p>3.3 Safely shut down the process</p> <p>3.4 Complete records according to workplace procedures</p>

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"> <li>Identify relevant information from workplace documentation and interpret requirements for the compressing process</li> </ul>

Skill	Description
Writing	<ul style="list-style-type: none"> <li>Complete workplace documentation using appropriate language and in required format</li> </ul>
Numeracy	<ul style="list-style-type: none"> <li>Interpret production requirements for type and number of tablets to be compressed</li> </ul>
Navigate the world of work	<ul style="list-style-type: none"> <li>Identify workplace procedures relevant to own role</li> </ul>
Interact with others	<ul style="list-style-type: none"> <li>Report operational and safety information to relevant personnel using required communication method</li> </ul>
Get the work done	<ul style="list-style-type: none"> <li>Plan, organise and implement tasks required to achieve production outcomes</li> <li>Use problem-solving skills to analyse product and process faults and decide on appropriate action</li> </ul>

## Range of Conditions

*This section specifies different work environments and conditions that may affect performance. Essential operating conditions that may be present (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) are included.*

Pre-start must include:	<ul style="list-style-type: none"> <li>carrying out required area or line clearances</li> <li>inspecting equipment condition to identify signs of wear</li> <li>confirming all safety equipment is in place and operational</li> <li>confirming that equipment is clean or sanitised</li> <li>confirming that equipment is correctly configured for processing requirements.</li> </ul>
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## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPPHM3010 Operate a compressing process	FDFPH2008A Operate a compressing process	Updated to meet Standards for Training Packages  Changes to performance criteria for clarity  Code changed to reflect	Equivalent unit

		AQF alignment	
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## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## Assessment Requirements for FBPPHM3010 Operate a compressing process

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

### Performance Evidence

An individual demonstrating competency in this unit must satisfy all the elements and performance criteria of this unit.

There must be evidence that the individual has safely operated at least one tablet compressing process, including:

- selected, fitted and used personal protective equipment and contamination prevention clothing
- conducted pre-start checks required for the safe operation of the compressing process, including:
  - carrying out required area or line clearances
  - inspecting equipment condition to identify signs of wear
  - confirming all safety equipment is in place and operational
  - confirming that equipment is clean or sanitised
  - confirming that equipment is correctly configured for processing requirements
- started, operated, monitored and adjusted a tablet compressing process to achieve required outcomes
- conducted in-process control checks to confirm the process remains within limits
- sampled and inspected tablets for defects
- taken corrective action in response to a non-conformance
- followed end-of-batch procedures, including:
  - line clearance and cleaning
  - product labelling
- safely shut down the process according to workplace procedures
- cleaned and maintained work area to meet workplace cleaning standards and environmental requirements
- completed records according to workplace procedures.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- stages of the tablet compressing process, including:
  - the purpose, methods and outcomes of each stage
  - stages and changes that occur during compression of tablets
  - the purpose and characteristics of ingredients and raw materials used in tablet production
  - types of raw materials used in the compressing process, and related handling and segregation requirements, including handling of hazardous goods
- basic operating principles, requirements and parameters of compressing equipment, including:
  - main equipment components, operating capacities and applications
  - typical equipment faults and related causes, including signs and symptoms of faulty equipment and early warning signs of potential problems
  - status and purpose of guards
  - the purpose and location of sensors and related feedback instrumentation
  - flow of the compressing process and the effect of outputs on downstream pharmaceutical processes
  - corrective actions required where operation is outside specified operating parameters
- operating principles of process control, including the relationship between control panels and systems and physical equipment
- functions and limitations of personal protective clothing and equipment, including:
  - protective gowns, scrubs, smocks, statcoats or disposable coveralls
  - surgical masks
  - surgical gloves
  - disposable overshoes
  - hair nets
- pre-start checks requirements, including:
  - carrying out required area or line clearances
  - inspecting equipment condition to identify signs of wear
  - confirming all safety equipment is in place and operational
  - confirming that equipment is clean or sanitised
  - confirming that equipment is correctly configured for processing requirements
- methods used to monitor compressing process, including inspecting measuring and testing
- product and process changeover procedures and responsibilities
- end-of-batch procedures, including:
  - calculating yield
  - materials reconciliation
- product labelling responsibilities and procedures
- requirements of different shutdowns, including:

- emergency and routine shutdowns
- procedures to follow in the event of a power outage
- line clearance procedures, including cleaning and sanitation procedures
- isolation, lock out and tag out procedures and responsibilities
- Good Manufacturing Practice (GMP) requirements associated with the compressing process and related control measures
- environmental issues and controls relevant to the compressing process, including waste collection and handling procedures
- requirements for completion of workplace documentation.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - a pharmaceutical manufacturing workplace or an environment that accurately represents workplace conditions
- resources, equipment and materials:
  - personal protective equipment and contamination prevention clothing compressing process equipment
  - sampling and testing equipment
  - materials required for the compressing process
  - cleaning materials and equipment associated with compressing process
  - record keeping system
- specifications:
  - batch instructions including product specifications, control points and processing parameters
  - recording requirements and procedures
  - workplace documentation relating to a tablet compressing process and procedures that comply with GMP requirements
  - information on equipment capacity and operating parameters
  - sampling schedules and test procedures
  - cleaning procedures associated with compressing process.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# FBPPHM3011 Dispense pharmaceutical raw materials

## Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

## Application

This unit of competency describes the skills and knowledge required to weigh, measure and label non-bulk ingredients to meet batch requirements in a pharmaceutical manufacturing facility.

The unit applies to individuals who apply Good Manufacturing Practice (GMP) and operating principles to the dispensing of raw materials. Individuals work under broad direction and take responsibility for their own work.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

## Pre-requisite Unit

Nil

## Unit Sector

Pharmaceutical (PHM)

## Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare to dispense raw materials	1.1 Confirm material status, type, quality clearance and quantities 1.2 Identify, rectify and report contamination or non-compliance issues according to workplace procedures 1.3 Confirm measuring and weighing equipment are available to meet dispensing requirements



Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	1.4 Select and fit personal protective equipment and contamination prevention clothing according to workplace procedures 1.5 Supply containers, bags and labels according to batch and production requirements 1.6 Conduct pre-start checks according to workplace requirements
2. Measure and weigh raw materials	2.1 Weigh and measure non-bulk ingredients and additives according to batch and production requirements 2.2 Monitor accuracy of measuring and dispensing equipment 2.3 Identify and report out of limit equipment operation according to workplace procedures 2.4 Label dispensed ingredients according to batch and production requirements 2.5 Maintain work area according to workplace cleaning standards 2.6 Conduct process according to workplace safety and environmental requirements
3. Shut down the dispensing process	3.1 Confirm the workplace procedures for shutting down the process 3.2 Safely shut down the process 3.3 Clean dispensing equipment according to workplace procedures 3.4 Report unacceptable equipment and utensil condition 3.5 Reconcile dispensed materials 3.6 Complete records according to workplace procedures

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"><li>Interpret workplace procedures for dispensing pharmaceutical raw materials</li></ul>

Skill	Description
Writing	<ul style="list-style-type: none"> <li>Complete workplace documentation using appropriate language and in required format</li> </ul>
Numeracy	<ul style="list-style-type: none"> <li>Extract and interpret mathematical information embedded in job specifications and stock control data to meet production requirements</li> <li>Use equipment to measure and weigh materials and additives to meet batch requirements</li> <li>Check and interpret raw material labels, codes and quantity</li> </ul>
Navigate the world of work	<ul style="list-style-type: none"> <li>Identify workplace procedures relevant to own role</li> </ul>
Interact with others	<ul style="list-style-type: none"> <li>Report operational and safety information to relevant personnel using required communication method</li> </ul>
Get the work done	<ul style="list-style-type: none"> <li>Plan, organise and implement tasks required to achieve dispensing outcomes</li> <li>Use problem-solving skills to analyse product and process faults and decide on appropriate action</li> </ul>

## Range of Conditions

*This section specifies different work environments and conditions that may affect performance. Essential operating conditions that may be present (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) are included.*

Pre start checks must include:	<ul style="list-style-type: none"> <li>inspecting the condition and cleanliness of equipment and shared or dedicated utensils</li> <li>confirming that equipment is correctly configured for dispensing requirements.</li> </ul>
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## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPPHM3011 Dispense pharmaceutical raw materials	FDFPH2009A Dispense pharmaceutical raw materials	Updated to meet Standards for Training Packages  Changes to performance criteria	Equivalent unit

		for clarity Code changed to reflect AQF alignment	
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## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## Assessment Requirements for FBPPHM3011 Dispense pharmaceutical raw materials

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

### Performance Evidence

An individual demonstrating competency in this unit must satisfy all the elements and performance criteria of this unit.

There must be evidence that the individual has safely dispensed pharmaceutical raw materials at least once, including:

- accessed workplace information to confirm dispensing requirements
- confirmed supply of necessary raw materials, including:
  - checking raw material labels and codes for status and type
  - quantities
  - quality clearances
- selected, fitted and used personal protective equipment and contamination prevention clothing
- conducted pre-start checks on dispensing equipment, including:
  - condition and cleanliness of equipment and shared or dedicated utensils
  - confirming that equipment is correctly configured for dispensing requirements
- measured materials and additives within a specified accuracy range to meet batch requirements
- calculated assay or potency adjustment
- verified accuracy of raw materials dispensed with raw materials records
- taken corrective action in response to a non-conformance
- applied segregation and cross contamination prevention procedures
- paced dispensing to meet production requirements
- packed and labelled dispensed materials, according to batch requirements and labelling procedures
- reconciled and recorded materials dispensed against materials released and returned unused materials to storage
- stacked dispensed materials for transfer to designated location, ensuring required material segregation

- handled containers and maintained integrity of materials according to workplace procedures
- safely cleared the process area according to workplace procedures
- cleaned and maintained dispensing equipment, utensils and work area to meet workplace cleaning standards and environmental requirements
- completed records according to workplace procedures.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- stages of the dispensing process, including:
  - the purpose, methods and outcomes of each stage
  - control points
  - types of raw materials and related handling requirements including handling of hazardous goods
- basic operating principles, requirements and parameters of dispensing equipment, including:
  - measuring, and accuracy capacity of instrumentation and related equipment
  - typical equipment faults and related causes, including signs and symptoms of faulty equipment and early warning signs of potential problems
  - corrective actions required where operation is outside specified operating parameters
- functions and limitations of personal protective equipment and contamination prevention clothing
- pre-start checks requirements, including:
  - condition and cleanliness of equipment and shared or dedicated utensils
  - confirming that equipment is correctly configured for dispensing requirements
- operational considerations that impact on the quality of the dispensing process, including:
  - product accuracy
  - equipment tolerances
  - consequences of errors and variations
- workplace procedures for:
  - calculating assay and adjusting potency
  - reconciliation of raw materials, including Schedule 8 materials
  - requisitioning, receiving and returning ingredients from stores
- Good Manufacturing Practice (GMP) requirements associated with dispensing pharmaceutical raw materials
- environmental issues and controls relevant to the dispensing process, including waste and rework collection, and handling procedures
- workplace systems for recording information about dispensed pharmaceutical materials, including coding and labelling systems
- requirements for completion of workplace documentation.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - a pharmaceutical manufacturing workplace or an environment that accurately represents workplace conditions
- resources, equipment and materials:
  - personal protective equipment and contamination prevention clothing
  - dispensing process equipment and utensils
  - materials required for the dispensing process
  - containers or bags, labelling and storage facilities
  - test equipment
  - cleaning materials and equipment associated with dispensing pharmaceutical raw materials
  - record keeping system
- specifications:
  - batch instructions including product specifications, control points and processing parameters
  - recording requirements and procedures
  - workplace documentation relating to the dispensing process and procedures that comply with GMP requirements
  - sampling schedules and test procedures
  - cleaning procedures associated with dispensing pharmaceutical raw materials.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## FBPPHM3012 Operate an encapsulation process

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

### Application

This unit of competency describes the skills and knowledge required to set up, operate, adjust and shut down an encapsulation process in a pharmaceutical manufacturing facility.

The unit applies to individuals who apply Good Manufacturing Practice (GMP) and operating principles to the encapsulation process. Individuals work under broad direction and take responsibility for their own work.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

### Pre-requisite Unit

Nil

### Unit Sector

Pharmaceutical (PHM)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare encapsulation process for operation	1.1 Confirm materials and equipment are available to meet production requirements 1.2 Confirm cleaning and maintenance requirements and status 1.3 Select and fit personal protective equipment and contamination prevention clothing according to workplace procedures 1.4 Fit and adjust machine components and related attachments

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	<p>according to production requirements and equipment operation and maintenance manual</p> <p>1.5 Enter processing and operating parameters according to safety and production requirements</p> <p>1.6 Check and adjust equipment performance, according to equipment operating procedures</p> <p>1.7 Conduct pre-start checks according to workplace procedures</p>
2. Operate and monitor encapsulation process	<p>2.1 Start up and monitor encapsulation process to confirm specifications are within required limits</p> <p>2.2 Identify and report out of limit capsule products or processes according to workplace procedures</p> <p>2.3 Maintain work area according to workplace cleaning standards</p> <p>2.4 Conduct process according to safety and environmental requirements</p> <p>2.5 Contain, remove and report spillages according to workplace procedures</p> <p>2.6 Complete documentation according to workplace procedures</p>
3. Shut down encapsulation process	<p>3.1 Confirm the workplace procedures for shutting down the process</p> <p>3.2 Complete end-of-batch procedures according to batch instructions and workplace procedures</p> <p>3.3 Safely shut down the process</p> <p>3.4 Complete records according to workplace procedures</p>

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"> <li>Identify relevant information from workplace documentation and interpret requirements for the encapsulation process</li> </ul>



Skill	Description
Writing	<ul style="list-style-type: none"> <li>Complete workplace documentation using appropriate language and in required format</li> </ul>
Numeracy	<ul style="list-style-type: none"> <li>Interpret specifications for flow rates and product quantity</li> </ul>
Navigate the world of work	<ul style="list-style-type: none"> <li>Identify workplace procedures relevant to own role</li> </ul>
Interact with others	<ul style="list-style-type: none"> <li>Report operational and safety information to relevant personnel using required communication method</li> </ul>
Get the work done	<ul style="list-style-type: none"> <li>Plan, organise and implement tasks required to achieve production outcomes</li> <li>Use problem-solving skills to analyse product and process faults and decide on appropriate action</li> </ul>

## Range of Conditions

*This section specifies different work environments and conditions that may affect performance. Essential operating conditions that may be present (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) are included.*

Pre-start checks must include:	<ul style="list-style-type: none"> <li>carrying out required area or line clearances</li> <li>inspecting equipment condition to identify signs of wear</li> <li>confirming all safety equipment are in place and operational</li> <li>confirming that equipment is clean or sanitised</li> <li>confirming that equipment is correctly configured for processing requirements.</li> </ul>
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## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPPHM3012 Operate an encapsulation process	FDFPH2010A Operate an encapsulation process	<p>Updated to meet Standards for Training Packages</p> <p>Changes to performance criteria for clarity</p> <p>Code changed to reflect</p>	Equivalent unit

		AQF alignment	
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## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# Assessment Requirements for FBPPHM3012 Operate an encapsulation process

## Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

## Performance Evidence

An individual demonstrating competency in this unit must satisfy all the elements and performance criteria of this unit.

There must be evidence that the individual has safely operated at least one encapsulation process, including:

- accessed workplace information to confirm production requirements for the encapsulation process
- confirmed supply of necessary materials and services for the encapsulation process, including checking raw materials meet batch requirements
- selected, fitted and used personal protective equipment and contamination prevention clothing
- conducted pre-start checks required for the safe operation of the encapsulation process, including:
  - carrying out required area or line clearances
  - inspecting equipment condition to identify signs of wear
  - confirming all safety equipment are in place and operational
  - confirming that equipment is clean or sanitised
  - confirming that equipment is correctly configured for processing requirements
- started, operated, monitored and adjusted an encapsulation process to achieve required outcomes
- conducted in-process control checks to confirm the process remains within limits
- sampled and inspected capsules for conformance to specifications, including appearance and weight
- taken corrective action in response to a non-conformance
- followed end-of-batch procedures, including:
  - line clearance and cleaning
  - yield calculation
  - materials reconciliation
  - product labelling

- safely shut down the process according to workplace procedures
- cleaned and maintained work area to meet workplace cleaning standards and environmental requirements
- completed records according to workplace procedures.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- stages of the encapsulation process, including:
  - the purpose, methods and outcomes of each stage
  - control points
  - quality characteristics to be met by the encapsulation process
  - stages and changes which occur during encapsulation
  - types of raw materials used in the encapsulation process and related handling and segregation requirements, including handling hazardous goods
- basic operating principles, requirements and parameters of encapsulating equipment, including:
  - main equipment components, operating capacities and applications
  - typical equipment faults and related causes, including signs and symptoms of faulty equipment and early warning signs of potential problems
  - status and purpose of guards
  - the purpose and location of sensors and related feedback instrumentation
  - flow of the encapsulation process and the effect of outputs on downstream pharmaceutical processes
  - corrective actions required where operation is outside specified operating parameters
- functions and limitations of personal protective equipment and contamination prevention clothing
- pre-start checks requirements, including:
  - carrying out required area or line clearances
  - inspecting equipment condition to identify signs of wear
  - confirming all safety equipment are in place and operational
  - confirming that equipment is clean or sanitised
  - confirming that equipment is correctly configured for processing requirements
- methods used to monitor the encapsulation process, including:
  - inspecting
  - measuring
  - testing
- product and process changeover procedures and responsibilities
- end-of-batch procedures, including:
  - calculating yield

- materials reconciliation
- product labelling responsibilities and procedures
- requirements of different shutdowns, including:
  - emergency and routine shutdowns
  - procedures to follow in the event of a power outage
- line clearance procedures, including cleaning and sanitation procedures
- isolation, lock out and tag out procedures and responsibilities
- operating principles of process control, including the relationship between control panels and systems and physical equipment
- Good Manufacturing Practice (GMP) requirements associated with an encapsulation process and related control measures
- environmental issues and controls relevant to the encapsulation process, including waste collection and handling procedures
- requirements for completion of workplace documentation.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - a pharmaceutical manufacturing workplace or an environment that accurately represents workplace conditions
- resources, equipment and materials:
  - personal protective equipment and contamination prevention clothing
  - encapsulation process equipment
  - materials required for the encapsulation process
  - test equipment
  - cleaning materials and equipment associated with encapsulation process
  - record keeping system
- specifications:
  - batch instructions including product specifications, control points and processing parameters
  - recording requirements and procedures
  - workplace documentation relating to encapsulation process and procedures that comply with GMP requirements
  - sampling schedules and test procedures
  - cleaning procedures associated with encapsulation process.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## FBPPHM3013 Operate a granulation process

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

### Application

This unit of competency describes the skills and knowledge required to set up, operate, adjust and shut down a granulation process in a pharmaceutical manufacturing facility.

The unit applies to individuals who apply Good Manufacturing Practice (GMP) and operating principles to the granulation process. Individuals work under broad direction and take responsibility for their own work.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

### Pre-requisite Unit

Nil

### Unit Sector

Pharmaceutical (PHM)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare granulation process for operation	1.1 Confirm materials and equipment are available and meet production requirements 1.2 Select and fit personal protective equipment and contamination prevention clothing according to workplace procedures 1.3 Fit and adjust machine components and attachments according to production requirements and equipment operation and

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	maintenance manual 1.4 Enter processing and operating parameters according to safety and production requirements 1.5 Conduct pre-start checks according to workplace requirements
2. Operate and monitor granulation process	2.1 Start up and monitor granulation process to confirm specifications are within required limits 2.2 Identify and report out of limit granulated products or processes according to workplace procedures 2.3 Maintain work area according to workplace cleaning standards 2.4 Conduct process according to safety and environmental requirements 2.5 Contain, remove and report spillages according to workplace procedures 2.6 Complete documentation according to workplace procedures
3. Shut down the granulation process	3.1 Confirm the workplace procedures for shutting down the process 3.2 Complete end-of-batch procedures according to batch instructions and workplace procedures 3.3 Safely shut down the process 3.4 Complete records according to workplace procedures

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"> <li>Identify relevant information from workplace documentation and interpret requirements for the granulation process</li> </ul>
Writing	<ul style="list-style-type: none"> <li>Complete workplace documentation using appropriate language and in required format</li> </ul>
Numeracy	<ul style="list-style-type: none"> <li>Interpret specifications for flow rates and product quantity</li> </ul>



Skill	Description
Navigate the world of work	<ul style="list-style-type: none"> <li>Identify workplace procedures relevant to own role</li> </ul>
Interact with others	<ul style="list-style-type: none"> <li>Report operational and safety information to relevant personnel using required communication method</li> </ul>
Get the work done	<ul style="list-style-type: none"> <li>Plan, organise and implement tasks required to achieve production outcomes</li> <li>Use problem-solving skills to analyse product and process faults and decide on appropriate action</li> </ul>

## Range of Conditions

*This section specifies different work environments and conditions that may affect performance. Essential operating conditions that may be present (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) are included.*

Pre-start checks must include:	<ul style="list-style-type: none"> <li>carrying out required area or line clearances</li> <li>inspecting equipment condition to identify signs of wear</li> <li>confirming all safety equipment are in place and operational</li> <li>confirming that equipment is clean or sanitised</li> <li>confirming that equipment is correctly configured for processing requirements.</li> </ul>
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## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPPHM3013 Operate a granulation process	FDFPH2011A Operate a granulation process	<p>Updated to meet Standards for Training Packages</p> <p>Changes to performance criteria for clarity</p> <p>Code changed to reflect AQF alignment</p>	Equivalent unit

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# Assessment Requirements for FBPPHM3013 Operate a granulation process

## Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

## Performance Evidence

An individual demonstrating competency in this unit must satisfy all the elements and performance criteria of this unit.

There must be evidence that the individual has safely operated at least one granulation process, including:

- accessed workplace information to confirm production requirements for the granulation process
- confirmed supply of necessary materials and services, including checking raw materials meet batch requirements
- selected, fitted and used personal protective equipment and contamination prevention clothing
- conducted pre-start checks required for the safe operation of the granulation process:
  - carrying out required area or line clearances
  - inspecting equipment condition to identify signs of wear
  - confirming all safety equipment are in place and operational
  - confirming that equipment is clean or sanitised
  - confirming that equipment is correctly configured for processing requirements
- started, operated, monitored and adjusted a granulation process to achieve required outcomes, including:
  - interpreting and implementing batch instructions
  - supply and flow of materials to and from the granulation process
- conducted in-process control checks to confirm the process remains within limits
- sampled and inspected product for conformance to specifications, including granule size
- taken corrective action in response to a non-conformance
- followed end-of-batch procedures, including:
  - line clearance and cleaning

- yield calculation
- materials reconciliation
- product labelling
- safely shut down the process according to workplace procedures
- cleaned and maintained work area to meet workplace cleaning standards and environmental requirements
- completed records according to workplace procedures.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- stages of the granulation process, including:
  - the purpose, methods and outcomes of each stage
  - control points
  - quality characteristics to be met by the granulation process
  - stages and changes which occur during granulation
  - types of raw materials used in the granulation process and related handling and segregation requirements, including handling hazardous goods
  - flow of the granulation process and the effect of outputs on downstream pharmaceutical processes
- basic operating principles of equipment, requirements and parameters of granulation equipment, including:
  - main equipment components, operating capacities and applications
  - typical equipment faults and related causes, including signs and symptoms of faulty equipment and early warning signs of potential problems
  - status and purpose of guards
  - the purpose and location of sensors and related feedback instrumentation
  - corrective actions required where operation is outside specified parameters
- functions and limitations of personal protective clothing and contamination prevention clothing
- pre-start checks requirements, including:
  - carrying out required area or line clearances
  - inspecting equipment condition to identify signs of wear
  - confirming all safety equipment are in place and operational
  - confirming that equipment is clean or sanitised
  - confirming that equipment is correctly configured for processing requirements
- methods used to monitor granulation process, including:
  - inspecting
  - measuring
  - testing

- product and process changeover procedures and responsibilities
- end-of-batch procedures, including:
  - calculating yield
  - materials reconciliation
- product labelling responsibilities and procedures
- requirements of different shutdowns, including:
  - emergency and routine shutdowns
  - procedures to follow in the event of a power outage
- line clearance procedures, including cleaning and sanitation procedures
- isolation, lock out and tag out procedures and responsibilities
- operating principles of process control, including the relationship between control panels and systems and physical equipment
- Good Manufacturing Practice (GMP) requirements associated with a granulation process and related control measures
- environmental issues and controls relevant to the granulation process, including waste collection and handling procedures
- requirements for completion of workplace documentation.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - a pharmaceutical manufacturing workplace or an environment that accurately represents workplace conditions
- resources, equipment and materials:
  - personal protective equipment and contamination prevention clothing
  - granulation process equipment
  - materials required for the granulation process
  - test equipment
  - cleaning materials and equipment associated with granulation process
  - record keeping system
- specifications:
  - batch instructions including product specifications, control points and processing parameters
  - recording requirements and procedures
  - workplace documentation relating to granulation process and procedures that comply with GMP requirements
  - sampling schedules and test procedures
  - cleaning procedures associated with granulation process.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## FBPPHM3014 Operate a liquid manufacturing process

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

### Application

This unit of competency describes the skills and knowledge required to set up, operate, adjust and shut down a liquid manufacturing process in a pharmaceutical manufacturing facility.

The unit applies to individuals who apply Good Manufacturing Practice (GMP) and operating principles to the liquid manufacturing process. Individuals work under broad direction and take responsibility for their own work.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

### Pre-requisite Unit

Nil

### Unit Sector

Pharmaceutical (PHM)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare the liquid manufacturing process for operation	1.1 Confirm materials and equipment are available and meet production requirements 1.2 Select and fit personal protective equipment and contamination prevention clothing according to workplace procedures 1.3 Fit and adjust machine components and attachments according to production requirements and equipment operation

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	<p>and maintenance manual</p> <p>1.4 Enter processing and operating parameters according to safety and production requirements</p> <p>1.5 Check and adjust equipment performance according to equipment operating procedures</p> <p>1.6 Conduct pre-start checks according to workplace requirements</p>
2. Operate and monitor the liquid manufacturing process	<p>2.1 Deliver raw materials in required quantities and sequence according to recipe specifications, batch and production requirements</p> <p>2.2 Start up and monitor liquid manufacturing process to confirm specifications are within required limits</p> <p>2.3 Identify, rectify and report out-of-specification liquid products or process outcomes to maintain process within specifications</p> <p>2.4 Conduct in process testing</p> <p>2.5 Transfer liquid mix according to production requirements</p> <p>2.6 Maintain work area according to workplace cleaning standards</p> <p>2.7 Conduct process according to safety and environmental requirements</p> <p>2.8 Contain, remove and report spillages according to workplace procedures</p> <p>2.9 Complete documentation according to workplace procedures</p>
3. Shut down the liquid manufacturing process	<p>3.1 Confirm the workplace procedures for shutting down the process</p> <p>3.2 Complete end-of-batch procedures according to batch instructions and workplace procedures</p> <p>3.3 Safely shut down the process</p> <p>3.4 Complete records according to workplace procedures</p>



## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"><li>Identify relevant information from workplace documentation and interpret requirements for the liquid manufacturing process</li></ul>
Writing	<ul style="list-style-type: none"><li>Complete workplace documentation using appropriate language and in required format</li></ul>
Numeracy	<ul style="list-style-type: none"><li>Interpret recipe specifications for loading materials in correct quantities and sequence</li><li>Confirm equipment timers, product weights and mixing times</li></ul>
Navigate the world of work	<ul style="list-style-type: none"><li>Identify workplace procedures relevant to own role</li></ul>
Interact with others	<ul style="list-style-type: none"><li>Report operational and safety information to relevant personnel using required communication method</li></ul>
Get the work done	<ul style="list-style-type: none"><li>Plan, organise and implement tasks required to achieve production outcomes</li><li>Use problem-solving skills to analyse product and process faults and decide on appropriate action</li></ul>

## Range of Conditions

*This section specifies different work environments and conditions that may affect performance. Essential operating conditions that may be present (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) are included.*

Pre-start checks must include:	<ul style="list-style-type: none"><li>carrying out required area or line clearances</li><li>inspecting equipment condition to identify signs of wear</li><li>confirming all safety equipment is in place and operational</li><li>confirming that equipment is clean or sanitised</li><li>confirming that equipment is correctly configured for processing requirements</li></ul>
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## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPPHM3014 Operate a liquid manufacturing process	FDFPH2012A Operate a liquid manufacturing process	Updated to meet Standards for Training Packages  Changes to performance criteria for clarity  Code changed to reflect AQF alignment	Equivalent unit

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# Assessment Requirements for FBPPHM3014 Operate a liquid manufacturing process

## Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

## Performance Evidence

An individual demonstrating competency in this unit must satisfy all the elements and performance criteria of this unit.

There must be evidence that the individual has operated at least one liquid manufacturing process, including:

- accessed workplace information to confirm production requirements for the liquid manufacturing process
- confirmed supply of necessary materials and services to the liquid manufacturing process
- selected, fitted and used personal protective equipment and contamination prevention clothing
- conducted pre-start checks required for the safe operation of the liquid manufacturing process, including:
  - carrying out required area or line clearances
  - inspecting equipment condition to identify signs of wear
  - confirming all safety equipment is in place and operational
  - confirming that equipment is clean or sanitised
  - confirming that equipment is correctly configured for processing requirements
- started, operated, monitored and adjusted a liquid manufacturing process to achieve required outcomes, including:
  - adding and loading materials in correct quantities and sequences, including monitoring automatic ingredient addition and manual addition
  - supply and flow of materials to and from the liquid manufacturing process
  - pacing the liquid manufacturing process to meet production requirements
- conducted in-process control checks to confirm the process remains within limits
- sampled and inspected product for conformance to specifications
- taken corrective action in response to a non-conformance
- followed end-of-batch procedures, including:

- line clearance and cleaning
- yield calculation
- materials reconciliation
- product labelling
- change status to dirty/non-sterile
- safely shut down the process according to workplace procedures
- cleaned and maintained work area to meet workplace cleaning standards and environmental requirements
- completed records according to workplace procedures.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- stages of the liquid manufacturing process, including:
  - the purpose, methods and outcomes of each stage
  - control points
  - quality characteristics to be met by the liquid manufacturing process
  - stages and changes which occur during liquid manufacturing
  - types of raw materials used in the liquid manufacturing process
  - specific gravity and bulk density properties of the ingredients used
  - method and sequence of addition required to achieve required mix characteristics
  - required characteristics of manufactured solutions, suspensions and emulsions
  - flow of the liquid manufacturing process and the effect of outputs on downstream pharmaceutical processes
- basic operating principles of equipment, requirements and parameters of liquid manufacturing equipment, including:
  - main equipment components, operating capacities and applications
  - typical equipment faults and related causes, including signs and symptoms of faulty equipment and early warning signs of potential problems
  - status and purpose of guards
  - the purpose and location of sensors and related feedback instrumentation
  - awareness of calibration schedules for scales and related weighing and measuring equipment
  - corrective actions required where operation falls outside specified parameters
- functions and limitations of personal protective equipment and contamination prevention clothing
- pre-start checks requirements, including:
  - carrying out required area or line clearances
  - inspecting equipment condition to identify signs of wear
  - confirming all safety equipment is in place and operational

- confirming that equipment is clean or sanitised
- confirming that equipment is correctly configured for processing requirements
- methods used to monitor a liquid manufacturing process, including:
  - inspecting
  - measuring
  - testing
  - flow rates
  - materials addition sequence
  - times, temperatures and agitator speeds
  - spills and leaks during filling
  - polymer issues, such as parison formation and burning polymer
- product and process changeover procedures and responsibilities
- end-of-batch procedures, including:
  - calculating yield
  - materials reconciliation
  - product labelling
  - change status to dirty/non-sterile
- requirements of different shutdowns, including:
  - emergency and routine shutdowns
  - procedures to follow in the event of a power outage
  - loss of environmental conditions
- filter issue trouble shooting
- line clearance procedures, including cleaning and sanitation procedures
- isolation, lock out and tag out procedures and responsibilities
- operating principles of process control, including the relationship between control panels and systems and physical equipment
- Good Manufacturing Practice (GMP) requirements associated with a liquid manufacturing process and related control measures
- environmental issues and controls relevant to the liquid manufacturing process, including waste collection and handling procedures
- requirements for completion of workplace documentation.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - a pharmaceutical manufacturing workplace or an environment that accurately represents workplace conditions
- resources, equipment and materials:
  - personal protective equipment and contamination prevention clothing liquid manufacturing process equipment

- materials required for the liquid manufacturing process
- test equipment
- cleaning materials and equipment associated with liquid manufacturing process
- record keeping system
- specifications:
  - batch instructions including product specifications, control points and processing parameters
  - recording requirements and procedures
  - workplace documentation relating to liquid manufacturing process and procedures that comply with GMP requirements
  - information on equipment capacity and operating parameters
  - sampling schedules and test procedures
  - cleaning procedures associated with liquid manufacturing process.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## FBPPHM3015 Operate a tablet coating process

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

### Application

This unit of competency describes the skills and knowledge required to set up, operate, adjust and shut down a tablet coating process in a pharmaceutical manufacturing facility.

The unit applies to individuals who apply Good Manufacturing Practice (GMP) and operating principles to the tablet coating process. Individuals work under broad direction and take responsibility for their own work.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

### Pre-requisite Unit

Nil

### Unit Sector

Pharmaceutical (PHM)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare the tablet coating process for operation	1.1 Confirm tablets, coating materials and equipment are available and meet production requirements 1.2 Select and fit personal protective equipment and contamination prevention clothing according to workplace procedures 1.3 Fit and adjust machine components and attachments according to production requirements and equipment operation and

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	maintenance manual 1.4 Enter processing and operating parameters according to safety and production requirements 1.5 Conduct pre-start checks according to workplace requirements
2. Operate and monitor the tablet coating process	2.1 Start up and monitor tablet coating process to confirm specifications are within required limits 2.2 Identify and report out of limit coated tablet products or processes according to workplace procedures 2.3 Maintain work area according to workplace cleaning standards 2.4 Conduct process according to safety and environmental requirements 2.5 Contain, remove and report spillages according to workplace procedures 2.6 Complete documentation according to workplace procedures
3. Shut down the tablet coating process	3.1 Confirm the workplace procedures for shutting down the process 3.2 Complete end-of-batch procedures according to batch instructions and workplace procedures 3.3 Safely shut down the process 3.4 Complete records according to workplace procedures

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"> <li>Identify relevant information from workplace documentation and interpret requirements for the tablet coating process</li> </ul>
Writing	<ul style="list-style-type: none"> <li>Complete workplace documentation using appropriate language and in required format</li> </ul>
Numeracy	<ul style="list-style-type: none"> <li>Confirm type and number of tablets to be coated meet batch</li> </ul>



Skill	Description
	requirements <ul style="list-style-type: none"> <li>Interpret specifications for coating addition rate and drying air temperature and flow</li> </ul>
Navigate the world of work	<ul style="list-style-type: none"> <li>Identify workplace procedures relevant to own role</li> </ul>
Interact with others	<ul style="list-style-type: none"> <li>Report operational and safety information to relevant personnel using required communication method</li> </ul>
Get the work done	<ul style="list-style-type: none"> <li>Plan, organise and implement tasks required to achieve production outcomes</li> <li>Use problem-solving skills to analyse product and process faults and decide on appropriate action</li> </ul>

## Range of Conditions

*This section specifies different work environments and conditions that may affect performance. Essential operating conditions that may be present (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) are included.*

Pre-start checks must include:	<ul style="list-style-type: none"> <li>carrying out required area or line clearances</li> <li>inspecting equipment condition to identify signs of wear</li> <li>confirming all safety equipment is in place and operational</li> <li>confirming that equipment is clean or sanitised</li> <li>confirming that equipment is correctly configured for processing requirements.</li> </ul>
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## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPPHM3015 Operate a tablet coating process	FDFPH2013A Operate a tablet coating process	Updated to meet Standards for Training Packages  Changes to performance criteria for clarity  Code changed to reflect AQF alignment	Equivalent unit

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# Assessment Requirements for FBPPHM3015 Operate a tablet coating process

## Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

## Performance Evidence

An individual demonstrating competency in this unit must satisfy all the elements and performance criteria of this unit.

There must be evidence that the individual has safely operated at least one tablet coating process, including:

- accessed workplace information to confirm production requirements for the tablet coating process
- confirmed supply of necessary tablets, coating materials and services for the tablet coating process
- selected, fitted and correctly used personal protective equipment and contamination prevention clothing
- conducted pre-start checks required for the safe operation of the tablet coating process equipment, including:
  - carrying out required area or line clearances
  - inspecting equipment condition to identify signs of wear
  - confirming all safety equipment is in place and operational
  - confirming that equipment is clean or sanitised
  - confirming that equipment is correctly configured for processing requirements
- started, operated, monitored and adjusted the tablet coating process to achieve required outcomes
- conducted in-process control checks to confirm the process remains within limits
- sampled and inspected tablets for conformance to specifications
- taken corrective action in response to a non-conformance
- followed end-of-batch procedures, including:
  - line clearance and cleaning
  - yield calculation
  - materials reconciliation

- product labelling
- safely shut down the process according to workplace procedures
- cleaned and maintained work area to meet workplace cleaning standards and environmental requirements
- completed records according to workplace procedures.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- stages of the tablet coating process, including:
  - the purpose, methods and outcomes of each stage
  - control points
  - quality characteristics to be met by the tablet coating process
  - stages and changes which occur during tablet coating
  - effects of tablet coating process on the end product
  - types of materials used in preparation of coatings and related handling and segregation requirements
  - flow of the tablet coating process and the effect of outputs on downstream pharmaceutical processes
- basic operating principles of equipment, requirements and parameters of tablet coating equipment, including:
  - main equipment components, operating capacities and applications
  - typical equipment faults and related causes, including signs and symptoms of faulty equipment and early warning signs of potential problems
  - status and purpose of guards
  - the purpose and location of sensors and related feedback instrumentation
  - corrective actions required where operation is outside of specified parameters
- functions and the limitations of personal protective equipment and contamination prevention clothing
- pre-start checks requirements, including:
  - carrying out required area or line clearances
  - inspecting equipment condition to identify signs of wear
  - confirming all safety equipment is in place and operational
  - confirming that equipment is clean or sanitised
  - confirming that equipment is correctly configured for processing requirements
- methods used to monitor the tablet coating process, including:
  - inspecting
  - measuring
  - testing
- product and process changeover procedures and responsibilities

- end-of-batch procedures, including:
  - calculating yield
  - material reconciliation
- product labelling responsibilities and procedures
- requirements of different shutdowns, including:
  - emergency and routine shutdowns
  - procedures to follow in the event of a power outage
- line clearance procedures, including cleaning and sanitation procedures
- isolation, lock out and tag out procedures and responsibilities
- operating principles of process control, including the relationship between control panels and systems and the physical equipment
- Good Manufacturing Practice (GMP) requirements associated with a tablet coating process and related control measures
- environmental issues and controls relevant to the tablet coating process, including waste collection and handling procedures
- requirements for completion of workplace documentation.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - a pharmaceutical manufacturing workplace or an environment that accurately represents workplace conditions
- resources, equipment and materials:
  - personal protective equipment and contamination prevention clothing
  - tablet coating process equipment
  - materials required for the tablet coating process, including tablets, coating materials and labels
  - test equipment
  - cleaning materials and equipment associated with tablet coating process
  - record keeping system
- specifications:
  - batch instructions including product specifications, control points and processing parameters
  - recording requirements and procedures
  - workplace documentation relating to tablet coating process and procedures that comply with GMP requirements
  - sampling schedules and test procedures
  - cleaning procedures associated with tablet coating process.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# FBPPHM3016 Operate a sterilisation process using an autoclave

## Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

## Application

This unit of competency describes the skills and knowledge required to set up, operate, adjust and shut down a sterilisation process using an autoclave in a pharmaceutical manufacturing facility.

The unit applies to individuals who apply Good Manufacturing Practice (GMP) and operating principles to the sterilisation process using an autoclave. Individuals work under broad direction and take responsibility for their own work.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

## Pre-requisite Unit

Nil

## Unit Sector

Pharmaceutical (PHM)

## Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare equipment and process for operation	1.1 Confirm autoclave and wrapping, cleaning and material items are available and meet load pattern requirements 1.2 Prepare autoclave and position load probe according to load pattern requirements and standard operating procedure 1.3 Enter operating parameters according to safety and

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	sterilisation requirements 1.4 Conduct pre-start checks according to workplace requirements 1.5 Load wrapping, cleaning and material items according to load pattern requirements
2. Operate autoclave to terminally sterilise items	2.1 Start up and monitor autoclave to confirm specifications are within required limits 2.2 Identify and report out of limit materials or processes according to workplace procedures 2.3 Maintain work area according to workplace cleaning standards 2.4 Conduct process according to safety and environmental requirements 2.5 Complete documentation according to workplace procedures
3. Remove items and follow shut down procedures	3.1 Confirm the workplace procedures for shutting down the process 3.2 Safely shut down the process 3.3 Remove items from autoclave 3.4 Check chemical indication to confirm items are dry 3.5 Ensure segregation of sterile and non-sterile items 3.6 Complete records according to workplace procedures

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"> <li>Identify relevant information from workplace documentation and interpret requirements for the sterilisation process</li> </ul>
Writing	<ul style="list-style-type: none"> <li>Complete workplace documentation using appropriate language and</li> </ul>



Skill	Description
	in required format
Numeracy	<ul style="list-style-type: none"> <li>Confirm number of items according to loading pattern</li> <li>Interpret time and temperature specifications for cycle parameters</li> <li>Confirm post cycle sampling results meet sterilisation requirements</li> </ul>
Navigate the world of work	<ul style="list-style-type: none"> <li>Identify workplace procedures relevant to own role</li> </ul>
Interact with others	<ul style="list-style-type: none"> <li>Report operational and safety information to relevant personnel using required communication method</li> </ul>
Get the work done	<ul style="list-style-type: none"> <li>Plan, organise and implement tasks required to achieve sterilisation process outcomes</li> <li>Use problem-solving skills to analyse product and process faults and decide on appropriate action</li> </ul>

## Range of Conditions

*This section specifies different work environments and conditions that may affect performance. Essential operating conditions that may be present (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) are included.*

Pre-start checks must include:	<ul style="list-style-type: none"> <li>carrying out required area or line clearances</li> <li>inspecting equipment condition to identify signs of wear</li> <li>confirming all safety equipment is in place and operational</li> <li>confirming that equipment is clean or sanitised</li> <li>confirming that equipment is correctly configured for processing requirements.</li> </ul>
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## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPPHM3016 Operate a sterilisation process using an autoclave	FDFPH2014A Operate a terminal sterilisation process	<p>Updated to meet Standards for Training Packages</p> <p>Changes to performance criteria for clarity</p>	Equivalent unit

Code and title current version	Code and title previous version	Comments	Equivalence status
		Code changed to reflect AQF alignment	

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# Assessment Requirements for FBPPHM3016 Operate a sterilisation process using an autoclave

## Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

## Performance Evidence

An individual demonstrating competency in this unit must satisfy all the elements and performance criteria of this unit.

There must be evidence that the individual has operated at least one sterilisation process using an autoclave, including:

- accessed workplace information to confirm sterilisation requirements
- confirmed supply of necessary wrapping, cleaning and material items for the sterilisation process
- prepared items by wrapping and marking with temperature-sensitive tape or material and ensured clothing is folded correctly
- positioned load probe and loaded items in correct orientation according to workplace procedures and load pattern requirements
- conducted pre-start checks required for safe operation of the autoclave, including:
  - carrying out required area or line clearances
  - inspecting equipment condition to identify signs of wear
  - confirming all safety equipment is in place and operational
  - confirming that equipment is clean or sanitised
- confirming that equipment is correctly configured for processing requirements
- started, operated, monitored and adjusted autoclave to achieve required outcomes, including time and temperature parameters
- conducted in-process control checks to confirm the process remains within limits
- collected samples and conducted tests according to workplace procedures
- taken corrective action in response to a non-conformance
- opened autoclave and removed items from autoclave according to workplace procedures
- used process control systems according to workplace procedures
- safely shut down the process according to workplace procedures
- cleaned and maintained work area to meet workplace cleaning standards and environmental requirements

- completed records according to workplace procedures.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- stages of the sterilisation process, including:
  - principles of heat transfer
  - properties of saturated steam
  - the relationship between time, temperature and pressure as they affect the kill rate
  - variables that impact the effectiveness of sterilisation
- the nature of items to be sterilised using an autoclave and related handling and preparation requirements, including:
  - porous loads
  - non-porous loads
  - position of probes
- the nature of wrapping materials suitable for use, including:
  - methods used to wrap items
  - methods used to monitor whether time and temperature parameters are met (including heat-sensitive tape or markers)
  - the significance of loading patterns in achieving effective sterilisation
- basic operating principles of equipment, requirements and parameters of autoclave, including:
  - main equipment components
  - time and temperature parameters required to achieve sterilisation and corrective actions required where operation falls outside specified parameters
  - typical equipment faults and related causes, including signs and symptoms of faulty equipment and early warning signs of potential problems
  - status and purpose of guards
  - equipment operating capacities and applications
  - purpose and location of sensors and related feedback instrumentation
  - corrective actions required where operation is outside of specified parameters
  - calibration schedule and procedures to confirm that instruments are within calibration
- health and safety hazards related to autoclave operation and associated control measures, including working with superheated steam and hot surfaces, manual handling and steam leaks
- pre-start checks requirements, including:
  - carrying out required area or line clearances
  - inspecting equipment condition to identify signs of wear
  - confirming all safety equipment is in place and operational
  - confirming that equipment is clean or sanitised

- confirming that equipment is correctly configured for processing requirements
- evaluation and in-process monitoring of sterilisation process indicators, including:
  - biological
  - chemical
  - physical
- methods used to monitor the sterilisation process, including:
  - inspecting
  - measuring
  - testing
- requirements of different shutdowns, including:
  - emergency and routine shutdowns
  - procedures to follow in the event of a power outage
- isolation, lock out and tag out procedures and responsibilities
- operating principles of process control
- Good Manufacturing Practice (GMP) requirements associated with a sterilisation process and related control measures
- environmental issues and controls relevant to the sterilisation process including waste collection and handling procedures
- requirements for completion of workplace documentation.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - a pharmaceutical manufacturing workplace or an environment that accurately represents workplace conditions
- resources, equipment and materials:
  - autoclave and handling equipment
  - wrapping materials and tape/heat sensitive markers
  - materials for sterilisation
  - test equipment
  - cleaning materials and equipment associated with sterilisation process
  - record keeping system
- specifications:
  - sterilisation specifications, control points and processing parameters
  - recording requirements and procedures
  - workplace documentation relating to sterilisation process and procedures that comply with GMP requirements
  - load pattern requirements
  - sampling schedules and test procedures
  - cleaning procedures associated with sterilisation process.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volume Implementation Guides are found in VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## FBPPHM3017 Coordinate a label store

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

### Application

This unit of competency describes the skills and knowledge required to receive, issue and reconcile labels for pharmaceutical products in a pharmaceutical manufacturing facility.

The unit applies to individuals who apply Good Manufacturing Practice (GMP) and operating principles to the coordination of a label store. Individuals work under broad direction and take responsibility for their own work.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

### Pre-requisite Unit

Nil

### Unit Sector

Pharmaceutical (PHM)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Receive labels	1.1 Locate label details required for type of pharmaceutical product 1.2 Confirm the quantity of labels received and reconcile against receipt documentation 1.3 Identify and report discrepancies to supervisor
2. Issue and reconcile	2.1 Create labels to meet batch requirements

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
labels	2.2 Issue labels in correct quantities to meet batch requirements 2.3 Receive, reconcile and record labels returned to store according to workplace verification and reconciliation procedures 2.4 Maintain records to meet workplace and legislative requirements 2.5 Coordinate the issue and reconciliation of labels according to workplace requirements

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"> <li>Read and identify label information</li> </ul>
Writing	<ul style="list-style-type: none"> <li>Record workplace information using appropriate language and in required format</li> </ul>
Numeracy	<ul style="list-style-type: none"> <li>Verify that label information meets batch type</li> <li>Use label counting equipment</li> </ul>
Navigate the world of work	<ul style="list-style-type: none"> <li>Apply workplace procedures to own role and responsibilities</li> <li>Understand main tasks, responsibilities and boundaries of own role</li> </ul>
Interact with others	<ul style="list-style-type: none"> <li>Report operational and safety information to relevant personnel using required communication method</li> </ul>
Get the work done	<ul style="list-style-type: none"> <li>Issue labels according to batch requirements</li> <li>Solve routine problems according to workplace guidelines and using experience of past solutions</li> </ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status



FBPPHM3017 Coordinate a label store	FDFPH2007A Coordinate a label store	Updated to meet Standards for Training Packages  Changes to performance criteria for clarity  Code changed to reflect AQF alignment	Equivalent unit
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## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# Assessment Requirements for FBPPHM3017 Coordinate a label store

## Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

## Performance Evidence

An individual demonstrating competency in this unit must satisfy all the elements and performance criteria of this unit.

There must be evidence that the individual has coordinated at least one label store, including:

- followed receipt procedures to receive, count and store labels
- accessed the production schedule to identify label requirements
- tested accuracy of label counting machines and recorded results
- verified that label information meets batch type, including setting up and using label counting equipment
- removed and accounted for damaged labels, or other non-conforming labels
- selected and issued labels to meet batch and documentation requirements
- received labels that have been issued and returned from production
- conducted reconciliations of labels received and issued including back-up verification
- maintained security of label store
- maintained a clean and hazard free work area
- operated label coding and printing equipment according to workplace procedures
- completed records according to workplace requirements.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- system of label control, including purposes and procedures for receiving, issuing and reconciling labels and verifying label management
- Good Manufacturing Practice (GMP) requirements and workplace procedures relating to label management
- purposes and requirements of security procedures and responsibilities
- types of labels received and issued and the significance of codes

- consequences of issuing incorrect labels
- procedures for setting up, testing and operating label store equipment, including label counting equipment
- corrective action required if a discrepancy is identified
- workplace procedures and responsibility for recording and reporting information
- workplace procedures for label coding and printing equipment.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - a pharmaceutical manufacturing workplace or an environment that accurately represents workplace conditions
- resources, equipment and materials:
  - label management system and procedures
  - labels and label counting equipment
  - label printing equipment and consumables
  - record keeping systems
- specifications:
  - batch instructions
  - documentation and workplace procedures about recording requirements
  - workplace procedures relating to coordinating a label store and label management that comply with GMP requirements.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# FBPPHM4001 Monitor and maintain Good Manufacturing Practice requirements

## Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

## Application

This unit of competency describes the skills and knowledge required to provide a leadership role in the day-to-day monitoring and maintenance of Good Manufacturing Practice (GMP) in a pharmaceutical manufacturing facility.

The unit applies to individuals with specialised skills and knowledge of GMP requirements who communicate workplace policies and procedures relevant to pharmaceutical manufacturing operations and have responsibility for the output of others. This includes applying and communicating non-routine technical solutions to predictable and unpredictable problems.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

## Pre-requisite Unit

Nil

## Unit Sector

Pharmaceutical (PHM)

## Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Empower team members to identify GMP requirements	1.1 Ensure personal protective equipment and contamination prevention clothing used by team members is serviceable and fitted correctly according to work health and safety requirements

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	<p>1.2 Ensure GMP requirements and workplace procedures are available</p> <p>1.3 Identify and address training needs according to team member's level of responsibility</p> <p>1.4 Provide training and coaching to support individuals and groups to implement GMP requirements and related workplace procedures</p> <p>1.5 Demonstrate personal hygiene to others to support implementation of GMP requirements and workplace procedures</p> <p>1.6 Monitor and control resource allocation according to workplace procedures and GMP requirements</p> <p>1.7 Ensure GMP control measures used in the work area are identifiable by workers</p>
2. Monitor personal hygiene and conduct of team members	<p>2.1 Ensure personal hygiene of work team meets GMP requirements</p> <p>2.2 Prepare, use, store and dispose of personal protective equipment and contamination prevention clothing according to GMP requirements and workplace procedures</p> <p>2.3 Ensure personal movements within workplace comply with area entry and exit procedures</p>
3. Monitor implementation of GMP requirements	<p>3.1 Clearly define, document and follow GMP requirements in work area</p> <p>3.2 Conduct a root cause analysis (RCA) as part of a cross-functional team and report non-compliance(s) from workplace procedures</p> <p>3.3 Identify and report GMP non-conformance(s) and signs of unacceptable plant or equipment condition</p> <p>3.4 Put in place quality approved corrective action or preventative action (CAPA)</p> <p>3.5 Record information according to workplace reporting procedures and to meet GMP requirements</p> <p>3.6 Ensure team members maintain work area according to workplace cleaning standards</p>
4. Maintain and facilitate continuous improvement	4.1 Identify, report and correct processes or conditions which could result in GMP non-conformance according to individual

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
of GMP	<p>level of responsibility</p> <p>4.2 Promptly resolve matters relating to GMP or refer them to appropriate personnel</p> <p>4.3 Monitor effectiveness of CAPA and control measures according to level of responsibility</p> <p>4.4 Advise others in the work area of GMP matters relevant to their work role</p> <p>4.5 Maintain workplace records and documents according to workplace procedures and GMP requirements</p>

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"> <li>Interpret key information about GMP requirements in workplace procedures</li> </ul>
Writing	<ul style="list-style-type: none"> <li>Prepare GMP training documentation using structure, technical language and format appropriate for purpose and audience</li> </ul>
Numeracy	<ul style="list-style-type: none"> <li>Analyse and interpret numerical performance indicators for workplace reporting related to GMP requirements</li> </ul>
Oral Communication	<ul style="list-style-type: none"> <li>Demonstrate two-way communication including active listening and confirming instructions when explaining GMP requirements to team members</li> </ul>
Interact with others	<ul style="list-style-type: none"> <li>Use appropriate vocabulary, including technical language directly relevant to role</li> <li>Report GMP performance to relevant personnel using required communication method</li> </ul>
Get the work done	<ul style="list-style-type: none"> <li>Access and use electronic document management systems</li> </ul>

## Range of Conditions

*This section specifies different work environments and conditions that may affect performance. Essential operating conditions that may be present (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) are included.*

Personal hygiene must include:	<ul style="list-style-type: none"> <li>informing team leader or supervisor of any reportable illnesses</li> <li>removal of jewellery, including: <ul style="list-style-type: none"> <li>rings</li> <li>watches</li> <li>bracelets</li> </ul> </li> <li>removal of makeup.</li> </ul>
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## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPPHM4001 Monitor and maintain Good Manufacturing Practice requirements	FDFPH3001A Monitor and maintain Good Manufacturing Practice procedures	<p>Updated to meet Standards for Training Packages</p> <p>Changes to elements and performance criteria for clarity</p> <p>Code changed to reflect AQF alignment</p>	Equivalent unit

## Links

Companion Volume Implementation Guides are found in VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# Assessment Requirements for FBPPHM4001 Monitor and maintain Good Manufacturing Practice requirements

## Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

## Performance Evidence

An individual demonstrating competency must satisfy all of the elements and performance criteria in this unit.

There must be evidence that the individual has monitored and maintained Good Manufacturing Practice (GMP) requirements of at least one work team, including:

- communicated information on GMP requirements to others in the work area, including demonstrating:
  - two-way communication
  - active listening
  - constructive responses to feedback
- accessed and used document management systems
- demonstrated personal hygiene according to GMP requirements and workplace procedures
- monitored recorded data to meet GMP recording requirements according to workplace procedures
- documented GMP requirements for a specific work area
- provided training and support to others in the work area to implement responsibilities according to GMP requirements and to workplace procedures
- determined actions required to respond to GMP non-compliance according to workplace procedures
- participated in improvement processes, including investigating actual and potential GMP non-compliance
- participated in, or reviewed, practices and procedures to prevent or minimise the likelihood of unacceptable performance.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:



- the role of GMP in preventing contamination, including:
  - its relationship to legal requirements of pharmaceutical manufacturers
  - potential implications of non-compliance
- GMP requirements, including:
  - relevant GMP codes of practice
  - related workplace procedures
  - organisational structures for implementing these requirements
  - quality assurance
- principles and process of effective communication and consultation
- workplace training and coaching system and responsibilities
- personal clothing use, storage and disposal requirements and hygiene requirements, including:
  - making team leader or supervisor aware of reportable illness
  - removal of jewellery
  - removal of makeup
- personal clothing and footwear requirements for working in and moving between work areas
- current technical and process knowledge required to monitor and maintain GMP and participate in investigating GMP non-compliance including:
  - common microbiological, physical and chemical contaminants
  - conditions under which types of contamination, including cross-contamination are likely to occur
  - purpose of equipment calibration
  - control methods and procedures, including the purpose of control and the consequences if not controlled
- recall and traceability procedures relevant to the work area, including:
  - reconciliation
  - line clearance
  - stored versus dedicated
- procedures followed to investigate contamination events and performance improvement processes, including:
  - root cause analysis (RCA)
  - corrective action or preventive action (CAPA)
- documentation systems and procedures, including:
  - record keeping to meet both company and legal requirements
  - responding to out-of-specification, or unacceptable, performance and outcomes
  - procedures for identifying and isolating, or quarantining, materials or products of unacceptable quality
  - processes for developing or reviewing workplace procedures
  - document control systems used in the workplace
  - responsibilities for reporting and recording information

- workplace cleaning standards and responsibilities relating to own work, including:
  - waste collection
  - recycling, safe handling and disposal for different types of waste
  - safe handling and disposal of hazardous waste.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - a pharmaceutical manufacturing workplace or an environment that accurately represents workplace conditions
- resources, equipment and materials:
  - personal protective equipment and contamination prevention clothing
  - document management system
- specifications:
  - GMP requirements
  - workplace cleaning standards
  - workplace reporting procedures
  - workplace procedures related to GMP
- relationships:
  - team members.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# FBPPHM4002 Prepare and review workplace documentation to support Good Manufacturing Practice requirements

## Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

## Application

This unit of competency describes the skills and knowledge required to develop, review and communicate workplace operations documentation to support Good Manufacturing Practice (GMP) in a pharmaceutical manufacturing facility.

The unit applies to individuals with specialised skills and knowledge of GMP requirements who manage and maintain documentation relevant to pharmaceutical manufacturing operations and have responsibility for the output of others. This includes applying and communicating non-routine technical solutions to predictable and unpredictable problems.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

## Pre-requisite Unit

Nil

## Unit Sector

Pharmaceutical (PHM)

## Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Review and draft workplace documentation to meet GMP requirements	1.1 Identify workplace documentation requiring development or review according to workplace documentation management process and GMP requirements

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	1.2 Initiate documentation changes according to change control process 1.3 Review workplace documentation in consultation with relevant stakeholders to support GMP 1.4 Draft workplace documentation in consultation with relevant stakeholders to support GMP 1.5 Ensure workplace documentation explains complex information in a simple and clear manner
2. Finalise workplace documentation to meet GMP requirements	2.1 Complete final version of documentation according to documentation management process 2.2 Submit final version of documentation for approval according to change control process

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"> <li>Interpret key information in GMP requirements and workplace procedures</li> <li>Review completed workplace documentation to ensure that GMP requirements are met</li> </ul>
Writing	<ul style="list-style-type: none"> <li>Prepare training documentation using structure, technical language and format appropriate for purpose and audience</li> </ul>
Oral Communication	<ul style="list-style-type: none"> <li>Demonstrate two-way communication including active listening and confirming instructions when explaining workplace documentation to team members</li> <li>Use appropriate vocabulary, including technical language directly relevant to role</li> </ul>
Get the work done	<ul style="list-style-type: none"> <li>Access and use electronic document management systems</li> </ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPPHM4002 Prepare and review workplace documentation to support Good Manufacturing Practice requirements	FDFPH4001A Prepare and review workplace documentation to support Good Manufacturing Practice	Updated to meet Standards for Training Packages  Change to unit title  Changes to element 2 and its performance criteria to remove the identification of training requirements	Equivalent unit

## Links

Companion Volume Implementation Guides are found in VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## Assessment Requirements for FBPPHM4002 Prepare and review workplace documentation to support Good Manufacturing Practice requirements

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

### Performance Evidence

An individual demonstrating competency must satisfy all of the elements and performance criteria in this unit.

There must be evidence that the individual has reviewed and developed workplace documentation to support the Good Manufacturing Practice (GMP) requirement of at least one workplace, including:

- identified workplace documentation requiring development or review using workplace documentation management process
- reviewed and developed workplace documentation, suitable for purpose and audience, including:
  - ensuring compliance with workplace procedures and GMP requirements
  - reporting improvements
  - reviewing and updating existing documentation
  - developing new documentation
  - applying documentation control procedures when submitting or amending documents
- accessed and used document management systems
- consulted with relevant stakeholders in the preparation and review process and ensured changes are effectively communicated
- communicated information on documentation requirements to others in the work area, including demonstrating:
  - two-way communication
  - active listening
  - constructive responses to feedback.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- workplace procedures and GMP requirements
- types of documentation requiring development or review, including:
  - procedures
  - instructions
  - records
- situations requiring documentation development or review, including:
  - general review
  - process change
  - inspection findings
  - deviations
- procedures and responsibilities for developing and altering documents, including:
  - version control
  - good documentation design and the use of templates
  - an understanding of system security and access levels
  - controls systems, including individual roles and responsibilities
  - document authorisation requirements and responsibilities of signatories
  - systems for recording and storing data and authorised levels of access to electronic systems
- use of documentation, including documents that can be used as evidence during audit processes
- requirements for completion of workplace documentation.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - a pharmaceutical manufacturing workplace or an environment that accurately represents workplace conditions
- resources, equipment and materials:
  - document management system
- specifications:
  - information about GMP requirements
  - workplace procedures related to GMP.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>



## FBPPHM4003 Facilitate contamination control

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

### Application

This unit of competency describes the skills and knowledge required to identify and implement contamination control measures in a pharmaceutical manufacturing facility.

The unit applies to individuals with specialised skills and knowledge of Good Manufacturing Practice (GMP) requirements who are responsible for overseeing the implementation of cleaning, sanitation, change control and validation programs within pharmaceutical manufacturing operations and have responsibility for the output of others. This includes applying and communicating non-routine technical solutions to predictable and unpredictable problems.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

### Pre-requisite Unit

Nil

### Unit Sector

Pharmaceutical (PHM)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Review contamination risks and related control measures to meet GMP requirements	1.1 Identify hazards that could present contamination risks by type, origin and product association 1.2 Review hazards and risk control measures to confirm they meet GMP requirements

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	1.3 Conduct risk assessment according to GMP requirements and workplace procedures 1.4 Confirm control measures
2. Implement procedures used to control risk of cross contamination	2.1 Identify effective barriers and control systems to minimise risk of cross-contamination according to GMP requirements and workplace procedures 2.2 Conduct in-process and environmental monitoring according to GMP requirements and workplace procedures 2.3 Validate cleaning processes according to workplace procedures 2.4 Confirm line clearance procedures 2.5 Ensure personal hygiene and conduct of personnel in work area meets GMP requirements 2.6 Ensure operators have the skills and knowledge required to apply contamination control measures

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"> <li>Interpret key information from in-process and environmental monitoring test results</li> <li>Interpret key information about GMP requirements in workplace procedures relevant to facilitating contamination control</li> </ul>
Writing	<ul style="list-style-type: none"> <li>Record contamination information in document management systems</li> </ul>
Oral communication	<ul style="list-style-type: none"> <li>Use appropriate language and communication skills to ensure that contamination management procedures are understood and implemented</li> </ul>
Numeracy	<ul style="list-style-type: none"> <li>Monitor data to determine instances of contamination according to GMP requirements</li> </ul>

Skill	Description
Navigate the world of work	<ul style="list-style-type: none"><li>Monitor personnel adherence to GMP requirements and workplace procedures</li></ul>
Interact with others	<ul style="list-style-type: none"><li>Report GMP requirements for contamination management to relevant personnel using required communication method</li></ul>
Get the work done	<ul style="list-style-type: none"><li>Use electronic document management system</li></ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPPHM4003 Facilitate contamination control	FDFPH4003A Facilitate contamination control	Updated to meet Standards for Training Packages  Changes to performance criteria for clarity	Equivalent unit

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# Assessment Requirements for FBPPHM4003 Facilitate contamination control

## Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

## Performance Evidence

An individual demonstrating competency in this unit must satisfy all the elements and performance criteria of this unit.

There must be evidence that the individual has facilitated contamination control in at least one workplace, including:

- identified and investigated occurrences that could present contamination hazards and risks by:
  - type
  - origin
  - product association
- confirmed contamination control measures, including:
  - critical limits
  - monitoring and recording requirements
- interpreted Good Manufacturing Practice (GMP) requirements and workplace procedures related to contamination control
- used document management systems to:
  - access and review documents regarding cross-contamination
  - monitor and record data according to GMP requirements
  - ensure procedures are understood and implemented
- reviewed workplace documents to determine contamination control measures, including:
  - equipment drawings
  - piping and instrumentation diagrams
  - process flow charting
- monitored gowning, cleaning, access and refresher training according to workplace procedures
- provided training and support to others in work area to implement contamination control according to GMP requirements and workplace procedures.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- types of contamination, including:
  - microbiological
  - chemical
  - physical
- microbiological limits, monitoring methods and reporting and recording formats and requirements
- line clearance procedures, roles and responsibilities
- personal hygiene and clothing requirements, including:
  - informing team leader or supervisor of reportable illness
  - removal of jewellery
  - removal of makeup
  - personal clothing use, storage and disposal
  - personal clothing and footwear requirements for working in and moving between work areas
  - decontamination
  - laundering
- GMP requirements and workplace procedures relevant to contamination control
- environmental issues and workplace controls relevant to contamination control, including:
  - the principles of workflow design to minimise risk of contamination
  - ventilation system requirements
  - production facility segregation requirements
  - storage requirements of raw materials prior to their use in manufacture
  - time limits and conditions for storing finished products prior to packaging
  - requirements relevant to product range
- workplace cleaning standards and responsibilities, including:
  - types of cleaning agents and what they do
  - waste collection
  - recycling, safe handling and disposal of different types of waste
  - safe handling and disposal of hazardous waste
- requirements for completion of workplace documentation.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - a pharmaceutical manufacturing workplace or an environment that accurately represents workplace conditions

- resources, equipment and materials:
  - document management system
  - equipment drawings, piping and instrumentation diagrams and process flow charts
- specifications:
  - recording requirements and procedures
  - workplace procedures related to contamination control
  - GMP requirements related to contamination control
  - workplace cleaning procedures
- relationships:
  - team members.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# FBPPHM4004 Participate in change control procedures

## Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

## Application

This unit of competency describes the skills and knowledge required to participate in planning and implementing change control procedures to meet Good Manufacturing Practice (GMP) requirements in a pharmaceutical manufacturing facility.

The unit applies to individuals with specialised skills and knowledge of GMP requirements who contribute to the development of defined change management programs and procedures relevant to pharmaceutical manufacturing operations and have responsibility for the output of others. This includes applying and communicating non-routine technical solutions to predictable and unpredictable problems.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

## Pre-requisite Unit

Nil

## Unit Sector

Pharmaceutical (PHM)

## Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Participate in planning change	1.1 Interpret change proposal to identify impact of change on the workplace 1.2 Interpret workplace procedures and GMP requirements for managing change

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	1.3 Conduct risk assessment for change implementation in the workplace 1.4 Undertake planning of change management 1.5 Identify workplace procedures affected by change management plan and allocate responsibilities for review 1.6 Identify training needs arising from change and determine delivery methods and responsibilities 1.7 Apply authorisation requirements according to workplace change control procedures 1.8 Finalise change management plan according to workplace procedures and GMP requirements
2. Participate in implementing change	2.1 Communicate change to all affected personnel 2.2 Implement training to support affected individuals and groups according to workplace procedures 2.3 Revise workplace procedures to reflect change requirements 2.4 Monitor and evaluate change according to workplace change control procedures 2.5 Implement adjustments to change according to workplace change control procedures 2.6 Maintain workplace records and documents according to workplace change control procedures and GMP requirements

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"> <li>Interpret key information in change proposal and workplace change control procedures</li> <li>Interpret key information in GMP requirements and workplace procedures relevant to change control</li> </ul>
Writing	<ul style="list-style-type: none"> <li>Document change management plan in required workplace format</li> </ul>



Skill	Description
Oral Communication	<ul style="list-style-type: none"><li>• Demonstrate two-way communication including active listening and questioning skills when explaining change management plan to team members</li><li>• Use appropriate vocabulary, including technical language directly relevant to role</li></ul>
Interact with others	<ul style="list-style-type: none"><li>• Use appropriate techniques negotiation and conflict resolution techniques</li></ul>
Get the work done	<ul style="list-style-type: none"><li>• Access and use electronic document management system</li></ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPPHM4004 Participate in change control procedures	FDFPH4004A Participate in change control procedures	Updated to meet Standards for Training Packages  Changes to performance criteria for clarity	Equivalent unit

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# Assessment Requirements for FBPPHM4004 Participate in change control procedures

## Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

## Performance Evidence

An individual demonstrating competency in this unit must satisfy all the elements and performance criteria of this unit.

There must be evidence that the individual has participated in change control procedures in at least one pharmaceutical manufacturing facility, including:

- identified situations requiring change control according to change proposal
- participated in developing a change management plan
- led the implementation of change in a work area
- communicated information on change requirements to others in the work area, including demonstrating:
  - two-way communication
  - active listening
  - responses to feedback
- accessed and used document management systems
- implemented training to support others in the work area to implement responsibilities according to change management plan
- interpreted Good Manufacturing Practice (GMP) requirements and workplace procedures related to change control
- documented change according to GMP requirements and workplace change control procedures.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- principles of risk management and related procedures
- documentary evidence required to support change requests
- workplace change control procedures, including:
  - evaluation criteria

- change classification
- authorisation requirements
- document control
- roles and responsibilities
- workplace training systems and responsibilities
- GMP requirements and workplace procedures relevant to change control
- documentation systems and procedures, including:
  - record keeping to meet both company and legal requirements
  - processes for developing or reviewing workplace procedures
  - document control systems used in the workplace
  - responsibilities for reporting and recording information.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - a pharmaceutical manufacturing workplace or an environment that accurately represents workplace conditions
- resources, equipment and materials:
  - change proposal
  - document management system
- specifications:
  - workplace change control procedures
  - workplace documentation relating to change control procedures
  - GMP requirements related to change control
- relationships:
  - team members.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# FBPPHM4005 Participate in validation of pharmaceutical manufacturing processes

## Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

## Application

This unit of competency describes the skills and knowledge required to use qualification and validation processes to meet Good Manufacturing Practice (GMP) requirements in a pharmaceutical manufacturing facility.

The unit applies to individuals with specialised skills and knowledge of GMP requirements who participate in validation process relevant to pharmaceutical manufacturing operations as part of a multi-disciplinary team and have responsibility for the output of others. This includes applying and communicating non-routine technical solutions to predictable and unpredictable problems.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

## Pre-requisite Unit

Nil

## Unit Sector

Pharmaceutical (PHM)

## Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Participate in qualification processes for facilities, systems or equipment	1.1 Identify procedures for developing and implementing qualification processes 1.2 Develop and review qualification processes and

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	documentation according to workplace procedures 1.3 Implement qualification process training needs
2. Participate in validation processes for facilities, systems or equipment	2.1 Identify validation requirements according to workplace procedures and GMP requirements 2.2 Follow validation protocol to support validation activities in the work area 2.3 Evaluate and document deviations and exceptions from protocol 2.4 Maintain workplace records and documents according to workplace procedures and GMP requirements

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"> <li>Interpret key information in GMP requirements and workplace procedures relevant to qualification and validation processes</li> </ul>
Writing	<ul style="list-style-type: none"> <li>Create qualification procedures and validation reports using relevant technical terminology and format to suit regulatory requirements</li> </ul>
Oral Communication	<ul style="list-style-type: none"> <li>Demonstrate two-way communication, including active listening and confirming instructions, when explaining qualification processes to team members</li> <li>Use appropriate vocabulary, including technical language to explain processes</li> </ul>
Get the work done	<ul style="list-style-type: none"> <li>Access and use electronic document management systems</li> </ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPPHM4005 Participate in validation of pharmaceutical manufacturing processes	FDFPH4005A Participate in validation processes	Updated to meet Standards for Training Packages  Changes to the unit title and performance criteria for clarity	Equivalent unit

## Links

Companion Volume Implementation Guides are found in VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# Assessment Requirements for FBPPHM4005 Participate in validation of pharmaceutical manufacturing processes

## Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

## Performance Evidence

An individual demonstrating competency in this unit must satisfy all the elements and performance criteria of this unit.

There must be evidence that the individual has participated in the validation processes of at least one workplace, including:

- identified procedures for developing and implementing qualification processes for a:
  - design qualification
  - installation qualification
  - operational qualification, and
  - performance qualification
- applied principles of risk management to identify critical facilities, systems and equipment
- communicated information on qualification process requirements to others in the work area, including demonstrating:
  - two-way communication
  - active listening
  - constructive responses to feedback
- implemented training to support others in the work area to implement responsibilities according to qualification process requirements
- interpreted Good Manufacturing Practice (GMP) requirements and workplace procedures related to qualification and validation requirements
- managed the impact of qualification and validation procedures on:
  - related processes
  - work areas
  - personnel
- developed workplace procedures to support qualification and validation according to GMP requirements and workplace procedures
- documented qualification and validation processes according to GMP requirements and workplace procedures.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- the procedures for developing and implementing qualification processes
- types of qualification processes, including:
  - design
  - installation
  - operational
  - performance
- validation objectives and procedures, including:
  - prospective validation
  - concurrent validation
  - re-validation
  - circumstances that justify not undertaking a validation process prior to commencing production
  - procedure updates and sampling requirements
- workplace training systems and responsibilities
- GMP requirements and workplace procedures relevant to qualification and validation processes
- documentation systems and procedures, including:
  - record keeping to meet both company and legal requirements
  - processes for developing or reviewing workplace procedures
  - document control systems used in the workplace
  - responsibilities for reporting and recording information.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - a pharmaceutical manufacturing workplace or an environment that accurately represents workplace conditions
- resources, equipment and materials:
  - qualification and validation process documentation
- specifications:
  - workplace procedures relating to validation
  - GMP requirements related to validation
- relationships:
  - team members.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.



## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## FBPPHM4006 Respond to non-conformance

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

### Application

This unit of competency describes the skills and knowledge required to identify and respond to non-conformance and review processes to minimise risk of recurrence to meet Good Manufacturing Practice (GMP) requirements in a pharmaceutical manufacturing facility.

The unit applies to individuals with specialised skills and knowledge of GMP requirements who respond to non-conformance relevant to pharmaceutical manufacturing operations and have responsibility for the output of others. This includes applying and communicating non-routine technical solutions to predictable and unpredictable problems.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

### Pre-requisite Unit

Nil

### Unit Sector

Pharmaceutical (PHM)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Identify non-conformance	1.1 Interpret workplace procedures and documentation relevant to non-conformance 1.2 Identify nature of non-conformance 1.3 Follow non-conformance corrective and preventive action (CAPA) according to GMP requirements and workplace

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	procedures
2. Identify causes of non-conformance	2.1 Investigate possible causes of non-conformance 2.2 Conduct root cause analysis (RCA) to determine cause of non-conformance 2.3 Conduct non-conformance risk assessment on current and previous material according to workplace procedures
3. Review processes to minimise risk of recurrence	3.1 Assess and select solutions to eliminate or minimise the risk of recurrence 3.2 Develop an implementation plan for risk minimisation solutions 3.3 Conduct CAPA effectiveness checks according to GMP requirements and workplace procedures 3.4 Establish consultative mechanisms and communicate implementation plan to support continuous improvement according to GMP requirements and workplace procedures

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"> <li>Interpret key information in workplace documentation and CAPA relevant to non-conformance</li> <li>Interpret key information in GMP requirements and workplace procedures relevant to non-conformance</li> </ul>
Writing	<ul style="list-style-type: none"> <li>Prepare RCA documentation</li> </ul>
Oral Communication	<ul style="list-style-type: none"> <li>Demonstrate two-way communication including active listening and confirming instructions when explaining implementation plan to team members</li> <li>Use appropriate vocabulary, including technical language, to explain requirements</li> </ul>
Get the work	<ul style="list-style-type: none"> <li>Access and use electronic document management systems</li> </ul>

Skill	Description
done	

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPPHM4006 Respond to non-conformance	FDFPH4006A Respond to non-conformance	Updated to meet Standards for Training Packages  Changes to performance criteria for clarity	Equivalent unit

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# Assessment Requirements for FBPPHM4006 Respond to non-conformance

## Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

## Performance Evidence

An individual demonstrating competency in this unit must satisfy all the elements and performance criteria of this unit.

There must be evidence that the individual has responded to at least one non-conformance, including:

- identified workplace procedures and documentation relating to non-conformance
- interpreted Good Manufacturing Practice (GMP) requirements and workplace procedures related to non-conformance
- identified workplace non-conformance change management procedures and responsibilities, including:
  - corrective and preventive actions (CAPA)
  - investigating possible causes of non-conformance
  - root cause analysis (RCA)
  - risk assessment
  - repeat incident
  - isolated incident
  - impact assessment
  - recording requirements
- reviewed responses to previous incidents to assess effectiveness and developed recommendations on appropriate workplace procedures
- communicated implementation plan requirements to others in the work area, including demonstrating:
  - two-way communication
  - active listening
  - constructive responses to feedback.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- workplace non-conformance change management procedures and responsibilities, including:
  - CAPA
  - investigating possible causes of non-conformance
  - RCA
  - risk assessment
  - repeat incident
  - isolated incident
  - impact assessment
  - recording requirements
- the provisions of the Therapeutic Goods Act relating to identifying non-conformance, including customer complaints, product recalls and auditing
- consultation and communication methods used to communicate implementation plan requirements to others in the work area, including demonstrating:
  - two-way communication
  - active listening
  - providing constructive responses to feedback
- GMP requirements and workplace procedures relevant to responding to non-conformance
- documentation systems and procedures, including:
  - record keeping to meet both company and legal requirements
  - processes for developing or reviewing workplace procedures
  - document control systems used in the workplace
  - responsibilities for reporting and recording information.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - a pharmaceutical manufacturing workplace or an environment that accurately represents workplace conditions
- resources, equipment and materials:
  - workplace procedures and documentation relating to non-conformance
- specifications:
  - CAPA documentation
  - workplace procedures relating to responding to non-conformance
  - GMP requirements related to responding to non-conformance
  - provisions of the Therapeutic Goods Act relating to identifying non-conformance

- relationships:
  - team members.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## FBPPPL2001 Participate in work teams and groups

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

### Application

This unit of competency describes the skills and knowledge required to work effectively with others in structured teams and informal work groups to complete work activities.

This unit applies to individuals who work under general supervision and whose role includes identifying and providing solutions to a limited range of predictable problems.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

### Pre-requisite Unit

Nil

### Unit Sector

People, Planning and Logistics (PPL)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Identify team objectives	1.1 Identify and agree team tasks, responsibilities and performance measures 1.2 Discuss and agree tasks required to achieve goals and performance standards with the team
2. Participate in planning work activity	2.1 Negotiate personal work tasks and roles to ensure team goals and performance standards are met 2.2 Provide information to contribute to planning work group



Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	activities 2.3 Assess personal skills to identify match with team skill needs 2.4 Plan personal workload to meet team goals and performance standards
3. Complete work tasks to meet team requirements	3.1 Undertake work to achieve team goals and performance standards 3.2 Ensure communication between team members and with other work areas is appropriate and timely 3.3 Make timely requests for assistance as required to meet team goals and performance standards 3.4 Provide assistance to other team members to achieve team goals and performance standards

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Oral communication	<ul style="list-style-type: none"> <li>• Uses clear language, concepts, tone and pace appropriate for the audience and purpose</li> <li>• Responds to clear requests and contributes to workgroup discussions, when asking and responding to relevant questions as appropriate</li> </ul>
Get the work done	<ul style="list-style-type: none"> <li>• Plans and implements routine tasks and workload making limited decisions on sequencing, timing and collaboration, and seeks assistance in setting priorities</li> </ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPPPL2001	FDFPPL2001A	Updated to meet	Equivalent unit

Code and title current version	Code and title previous version	Comments	Equivalence status
Participate in work teams and groups	Participate in work teams and groups	Standards for Training Packages  Minor changes to Performance Criteria to clarify intent	

## Links

Companion Volume Implementation Guides are found in VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## Assessment Requirements for FBPPPL2001 Participate in work teams and groups

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

### Performance Evidence

An individual demonstrating competency must satisfy all of the elements and performance criteria in this unit.

There must be evidence that the individual has effectively participated in work teams or groups of at least three people, on a minimum of two different occasions, including:

- actively participating in discussion about identifying team goals and expectations
- planning work to maximise outcomes for team
- applying communication skills to engage with other participants
- participating in and supporting the achievement of team goals.

### Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- how to plan work to maximise outcomes for team
- appropriate communication skills to engage with other participants
- procedures for establishing team goals and performance standards
- methods used to measure achievement of personal and team goals
- team goals and personal role to achieving work outcomes
- common group communication processes, including:
  - basic negotiation skills
  - conflict resolution
  - giving and receiving feedback
- importance of team goals and expectations and personal role within the team
- oral communication skills and language, including:
  - questioning
  - active listening

- asking for clarification
- seeking advice from supervisor
- working in a culturally diverse workforce.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - skills must be demonstrated in a workplace setting or an environment that accurately represents a real workplace
- resources, equipment and materials:
  - workplace arrangements for establishing company, workplace and team goals
- relationships:
  - opportunities to participate in team processes.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## FBPPPL3001 Support and mentor individuals and groups

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 1.0.

### Application

This unit of competency describes the skills and knowledge required to model appropriate work practices, provide feedback to groups and individuals, and facilitate group processes.

This unit applies to individuals who work under broad direction and take responsibility for their own work and may have some formal responsibility for managing others. This includes working in a range of known contexts and completing routine activities.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

### Pre-requisite Unit

Nil

### Unit Sector

People, Planning and Logistics (PPL)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Support others in the work area	1.1 Mentor individuals to meet work requirements according to workplace procedures 1.2 Compare individual work performance against expected workplace standards 1.3 Ensure performance is monitored and appropriate action is taken

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	<p>according to workplace procedures</p> <p>1.4 Provide feedback to individual on performance according to workplace procedures</p>
2. Facilitate group processes	<p>2.1 Determine purpose of group process and plan group involvement</p> <p>2.2 Gather information and develop a proposed process outcome through discussions with the group</p> <p>2.3 Engage the members of the group to ensure decisions are made and agreed according to workplace procedures</p> <p>2.4 Record the agreed outcomes and implement process in a timely manner</p>

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Writing	<ul style="list-style-type: none"> <li>Accurately records and completes organisational documents using clear language and correct spelling, grammar and terminology</li> </ul>
Oral communication	<ul style="list-style-type: none"> <li>Effectively participates in verbal exchanges using collaborative and inclusive techniques, including active listening and questioning, and reading of verbal and non-verbal signals to convey and clarify information</li> </ul>
Interact with others	<ul style="list-style-type: none"> <li>Uses a range of strategies to establish a sense of connection and build rapport with co-workers</li> <li>Cooperates with others and contributes to the improvement of work practices</li> </ul>
Get the work done	<ul style="list-style-type: none"> <li>Contributes to continuous improvement of current work practices by applying basic principles of analysis</li> <li>Takes responsibility for planning, sequencing and prioritising tasks and own workload for efficiency and effective outcomes</li> <li>Addresses less predictable problems and initiates standard procedures in response, applying problem-solving processes in determining solutions</li> <li>Accepts responsibility and ownership for the task and makes</li> </ul>

Skill	Description
	decisions on completion parameters and the need for coordination with others

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPPPL3001 Support and mentor individuals and groups	FDFPPL3003A Support and mentor individuals and groups	Updated to meet Standards for Training Packages  Minor changes to Performance Criteria for clarity	Equivalent unit

## Links

Companion Volumes, including Implementation Guides, are available at VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## Assessment Requirements for FBPPPL3001 Support and mentor individuals and groups

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 1.0.

### Performance Evidence

An individual demonstrating competency must satisfy all of the elements and performance criteria in this unit.

There must be evidence that the individual has supported and mentored one individual on at least one occasion and a group on at least one other occasion, including:

- modelling behaviour and performance consistent with company policy and procedures
- supporting others in their behaviour and performance
- providing feedback on performance and taking appropriate action
- planning and organising group activities to engage participation
- determining, recording and implementing clear group process outcomes.

### Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- company policies and procedures as they apply to the work area
- regulations and legislative requirements, including:
  - sexual discrimination
  - harassment and bullying
  - equal employment opportunity
  - anti-discrimination
  - racial vilification
  - work health and safety
  - food safety
  - environmental management
- industry awards and workplace agreements to develop an awareness of the main issues covered as they affect day-to-day work arrangements



- techniques for structuring and explaining work-related information to meet the needs of people in the work area
- interpersonal skills, including appropriate questioning, listening and feedback techniques
- workplace arrangements for training/assessment and related responsibilities
- boundaries of responsibility and related procedures for feedback, counselling and disciplinary procedures
- formal arrangements and responsibilities for consulting others relating to work role
- meeting procedures and recording requirements as relevant in the workplace
- basic group process facilitation procedures, including:
  - planning group processes
  - identifying the purpose
  - confirming the appropriate attendance
  - decision making
  - documenting basic group processes
- communications skills relevant to working with individuals and groups.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - a workplace or an environment that accurately represents workplace conditions
- resources, equipment and materials:
  - systems and programs in the workplace to support development and mentoring of others
  - relevant resources to support mentoring role and responsibilities
- specifications:
  - regulatory, licensing, and legislative requirements
  - industrial awards and agreements
  - workplace policies, codes of practice and procedures
  - workplace systems and procedures for consultation, feedback, counselling and discipline
  - information systems, including recording and retrieval systems
- relationships (internal and/or external):
  - opportunities to interact with others using typical workplace communication processes.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volumes, including Implementation Guides, are available at VETNet -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## FBPPPL3002 Establish compliance requirements for work area

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 1.0.

### Application

This unit of competency describes the skills and knowledge required to establish compliance requirements that apply to work operations in a production environment where the experienced operator or supervisor is responsible for ensuring compliance requirements are identified for work operations in their area of responsibility.

This unit applies to individuals who would typically work under direction and is required to operate within established compliance procedures in relations to health and safety, food safety, feed safety or environmental management.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

### Pre-requisite Unit

Nil

### Unit Sector

People, Planning and Logistics (PPL)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Identify compliance requirements	1.1 Review existing operating procedures and specifications to identify compliance requirements 1.2 Make enquiries within the workplace to identify compliance requirements according to workplace procedures

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	1.3 Access information from external organisations and regulatory authorities to determine compliance requirements 1.4 Assess the purpose and scope of compliance requirement and impact on work to be performed
2. Establish compliance arrangements in work area	2.1 Confirm and communicate compliance requirements to other staff in work area according to workplace procedures 2.2 Source briefings, training and other support from internal and external support staff to ensure compliance is understood 2.3 Identify procedures for achieving and monitoring compliance in own work area 2.4 Identify procedures to be followed for non-compliance events

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"> <li>Reads and interprets procedures, specifications and other documentation from a variety of sources and consolidates information to determine requirements</li> </ul>
Writing	<ul style="list-style-type: none"> <li>Accurately records and completes organisational documents using clear language and correct spelling, grammar and terminology</li> </ul>
Oral communication	<ul style="list-style-type: none"> <li>Effectively participates in verbal exchanges using collaborative and inclusive techniques, including active listening and questioning, and reading of verbal and non-verbal signals to convey and clarify information</li> </ul>
Navigate the world of work	<ul style="list-style-type: none"> <li>Ensures an up-to-date understanding of legislative requirements</li> </ul>
Get the work done	<ul style="list-style-type: none"> <li>Contributes to continuous improvement of current work practices by applying basic principles of analysis</li> <li>Takes responsibility for planning, sequencing, and prioritising tasks and workload for efficiency and effective outcomes</li> <li>Addresses problems and initiates standard procedures in response,</li> </ul>

Skill	Description
	<p>applying problem-solving processes to determine effective solutions</p> <ul style="list-style-type: none"><li>• Accepts responsibility and ownership for the task and makes decisions on completion parameters and the need for coordination with others</li></ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPPPL3002 Establish compliance requirements for work area	FDFPPL3006A Establish compliance requirements for work area	Updated to meet Standards for Training Packages  Minor changes to Performance Criteria for clarity	Equivalent unit

## Links

Companion Volumes, including Implementation Guides, are available at VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## Assessment Requirements for FBPPPL3002 Establish compliance requirements for work area

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 1.0.

### Performance Evidence

An individual demonstrating competency must satisfy all of the elements and performance criteria in this unit.

There must be evidence that the individual has established compliance requirements for work areas on at least one occasion, including:

- investigating and identifying compliance requirements and procedures for own work area
- assessing workplace procedures against compliance requirements to determine gaps
- sourcing information and training to assist in establishing an effective compliance framework in work area
- determining the work procedures required to follow, observe and respond to compliance issues.

### Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- operating procedures, specifications and other workplace information
- information required for compliance for own work area
- communication skills to obtain and share information
- requirements for establishing and monitoring procedures
- documenting compliance outcomes
- effect of work procedures on compliance factors in the work area
- purpose and intent of compliance in the workplace
- compliance policies and requirements relevant to own work area, including:
  - work health and safety
  - food safety
  - feed safety
  - environmental management
- data assessment methods relevant to monitoring compliance of own work area

- internal and external support personnel as sources for compliance requirements
- procedures to follow for non-compliance events
- consequences of non-compliance in the workplace.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - a workplace or an environment that accurately represents workplace conditions
- resources, equipment and materials:
  - information systems and data collection technology
  - workplace/personnel access to collect data and observe compliance
- specifications:
  - workplace program documentation
  - compliance procedures and standards as applied in the workplace
  - relevant legislation, industry standards and codes of practice.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volumes, including Implementation Guides, are available at VETNet -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## FBPPPL3003 Participate in improvement processes

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

### Application

This unit of competency describes the skills and knowledge required to participate in performance improvement processes that involve systematic analysis of performance to identify and propose opportunities for improvement.

The unit applies to individuals who work under broad direction and have scope to investigate and participate in improvement processes, where structured analysis and investigation is required.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

### Pre-requisite Unit

Nil

### Unit Sector

People, Planning and Logistics (PPL)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Identify opportunities for improvement	1.1 Identify barriers to good practice or optimal performance 1.2 Define scope of issue or problem to be addressed
2. Identify information requirements	2.1 Identify data required to investigate improvement opportunity 2.2 Select appropriate data collection methods



Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	2.3 Identify additional resources available to support investigation
3. Analyse the issue or problem	3.1 Select and apply techniques required to investigate nature of issue or problem 3.2 Assess the detail of the issue or problem 3.3 Identify and appraise possible causes 3.4 Determine and assess options for improvement
4. Recommend options for improvement	4.1 Consolidate and clarify preferred options 4.2 Present recommendations in formats appropriate to the issue and the audience 4.3 Ensure recommendations are consistent with data collected and analyses
5. Participate in implementing improvement proposals	5.1 Support improvement trials 5.2 Evaluate and refine improvement proposals against organisational objectives 5.3 Contribute to the development of new operating procedures or processes 5.4 Implement and communicate operating procedures or processes to reflect improved practices 5.5 Monitor improvement in performance

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Oral communication	<ul style="list-style-type: none"> <li>Use clear language and concepts, and tone and pace, appropriate for the audience and purpose when discussing and communicating improvements</li> </ul>
Get the work done	<ul style="list-style-type: none"> <li>Respond to predictable routine problems and implement standard or logical solutions</li> </ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPPPL3003 Participate in improvement processes	FDFPPL3001A Participate in improvement processes	Updated to meet Standards for Training Packages  Minor changes to Performance Criteria to clarify intent	Equivalent unit

## Links

Companion Volume Implementation Guides are found in VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# Assessment Requirements for FBPPPL3003 Participate in improvement processes

## Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

## Performance Evidence

An individual demonstrating competency must satisfy all of the elements and performance criteria in this unit.

There must be evidence that the individual has actively participated in processes to improve work outcomes on at least two different occasions, including:

- planning investigation and data collection methods
- developing objectives and parameters for investigation
- collecting and analysing data and evidence to test ideas
- presenting improvement plans with evidence to support rationale
- implementing and monitoring improvement processes
- ensuring improvement plans reflect overall organisational objectives.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- objectives to be addressed by improvement proposals, including quality, work health and safety, environmental management, cost, efficiency and job satisfaction
- the context in which improvement occurs, including capital expenditure and labour budgets, equipment capacity and production targets
- workplace improvement processes
- data collection and analysis techniques appropriate to the nature of the improvement opportunity and the workplace
- communication techniques to support data collection, consultation and teamwork required to participate in improvement processes
- problem solving strategies
- resources required to support investigation, including:
  - internal and external resources

- negotiating access to resources
- identifying expertise
- recognising improvement requirements in team members
- the importance of providing and gaining feedback
- issues that may occur in a culturally diverse workforce.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - skills must be demonstrated in a workplace setting or an environment that accurately represents a real workplace
- resources, equipment and materials:
  - information storage and retrieval systems
- specifications:
  - relevant technical information and personnel resources
  - relevant workplace documentation
- relationships (internal and/or external):
  - opportunities to interact with others.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## FBPPPL3004 Lead work teams and groups

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

### Application

This unit of competency describes the skills and knowledge required to plan to achieve work requirements, secure resources and monitor the outputs of a work team or group.

The unit applies to individuals who have responsibility for overseeing a team or group in a leadership role.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

### Pre-requisite Unit

Nil

### Unit Sector

People, Planning and Logistics (PPL)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Negotiate and communicate team objectives	1.1 Discuss and agree on goals, tasks and responsibilities with team 1.2 Discuss and agree on performance, standards and measures expected of team
2. Plan the work activity	2.1 Assign individual roles and responsibilities of team members according to workplace procedures 2.2 Allocate work roles taking into account team goals and skills, and

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	expertise of each team member 2.3 Identify and secure resources required to achieve work outcomes according to workplace procedures 2.4 Identify and address development needs of team members
3. Monitor team work to achieve required outcomes	3.1 Monitor work progress against timelines and performance measures 3.2 Keep team members informed of progress towards achieving team performance indicators 3.3 Identify potential barriers to achieving team goals and take corrective action 3.4 Identify, investigate and report team performance variances 3.5 Encourage team members to actively contribute to team growth and development 3.6 Follow workplace information systems and procedures to record and report on team performance

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Writing	<ul style="list-style-type: none"> <li>Accurately record and complete organisational document using clear language and correct spelling, grammar and terminology</li> </ul>
Oral communication	<ul style="list-style-type: none"> <li>Clearly explain information using language, tone and pace appropriate to audience</li> </ul>
Navigate the world of work	<ul style="list-style-type: none"> <li>Contribute to continuous improvement of current work practices by applying basic principles of analysis</li> </ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPPPL3004 Lead work teams and groups	FDFPPL3004A Lead work teams and groups	Updated to meet Standards for Training Packages  Minor changes to Performance Criteria to clarify intent	Equivalent unit

## Links

Companion Volume Implementation Guides are found in VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# Assessment Requirements for FBPPPL3004 Lead work teams and groups

## Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

## Performance Evidence

An individual demonstrating competency must satisfy all of the elements and performance criteria in this unit.

There must be evidence that the individual has effectively led a work team or group, of at least three workers, on at least one occasion, including:

- ensuring all team members understand and agree to team goals and expectations and their personal responsibilities
- planning a team activity to take into account team goals, timelines, individual capabilities and resources
- monitoring outcomes against timelines and communicating progress with team members
- applying effective interpersonal communication skills to engage and support team members
- supporting positive outcomes for the individuals and team.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- facilitation techniques and communication skills to support the active engagement and participation of team members in team processes, including:
  - representation or avocation for the team members or work group
  - individuals with cultural and diverse backgrounds
  - negotiation skills
  - giving and receiving feedback
  - basic performance management
- work procedures relevant to team tasks and related workplace health and safety, food safety, quality and environmental management issues, hazards and control measures
- workplace planning and performance measurement systems and processes



- methods used to measure achievement of individual and team goals
- resource allocation systems used in the workplace as appropriate to secure relevant resources required by the team or group
- methods used to assess team members capabilities, skills and knowledge for the allocation of work
- competency requirements of work functions, including special work conditions covered by licensing or certification
- duty of care when allocating work roles and responsibilities
- workplace competency identification and training arrangements
- the structure and development of work teams
- workplace recording and reporting system and responsibilities.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - skills must be demonstrated in a workplace setting or an environment that accurately represents a real workplace
- resources, equipment and materials:
  - sample resource management and allocation systems
- relationships:
  - opportunities to work with a team.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## FBPPPL3005 Participate in an audit process

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

### Application

This unit of competency describes the skills and knowledge required for individuals to participate in auditing, where it occurs in an area that the person is not directly responsible for and where they are required to follow a formal, structured process. It is designed to support participation in auditing a range of programs designed to identify hazards, assess risk and implement control measures.

At this level, the person would typically work under direction and may be required to operate within established audit procedures. Participation implies that the person can participate in all stages of an audit but is not responsible for negotiating audit scope, allocating audit tasks to others or reporting on audit outcomes.

All work must be carried out to comply with workplace procedures according to state/territory health and safety regulations, legislation and standards that apply to the workplace.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

### Pre-requisite Unit

Nil

### Unit Sector

People, Planning and Logistics (PPL)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Participate in planning	1.1 Establish roles and responsibilities for participating in audit

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
an audit	1.2 Determine the purpose and scope of the audit 1.3 Identify and locate information and resources required for audit
2. Participate in conducting an audit	2.1 Collect information that is adequate, representative and meets audit requirements 2.2 Analyse information to assess adequacy of performance against program 2.3 Review program records to compare with the audit compliance requirements 2.4 Observe compliance with the program in the workplace 2.5 Identify areas requiring corrective action
3. Follow up audit outcomes and prepare action plans	3.1 Assess audit outcomes that present a risk to the program objectives 3.2 Develop a corrective action plan to address the audit outcomes 3.3 Prepare adjustments to work activities to address action plan 3.4 Communicate the results of the audit and required adjustments to appropriate personnel

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"> <li>Read, interpret and consolidate information from briefing notes and other data, and compare against defined criteria and requirements</li> </ul>
Writing	<ul style="list-style-type: none"> <li>Accurately record and complete organisational documents using clear language and correct spelling, grammar and terminology</li> </ul>
Oral communication	<ul style="list-style-type: none"> <li>Clearly explain detailed information using language, tone and pace appropriate to audience</li> </ul>
Get the work done	<ul style="list-style-type: none"> <li>Contribute to continuous improvement of current work practices by applying basic principles of analysis</li> </ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPPPL3005 Participate in an audit process	FDFPPL3005A Participate in an audit process	Updated to meet Standards for Training Packages  Minor changes to Performance Criteria to clarity intent  Prerequisites removed	Equivalent unit

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# Assessment Requirements for FBPPPL3005 Participate in an audit process

## Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

## Performance Evidence

An individual demonstrating competency must satisfy all of the elements and performance criteria in this unit.

There must be evidence that the individual has participated in an audit process on at least one occasion, including:

- collecting, assessing and providing information as required by the audit process
- acting on risk identified in the audit process
- following up on audit outcomes by developing action plans
- communicating outcomes to work personnel.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- requirements and procedures for participating in an audit
- the purpose and scope of an audit, including the stages involved in the audit process
- roles and responsibilities of individuals involved in an audit process
- types of information required for a range of audit situations, including:
  - health and safety in the workplace
  - quality
  - environmental
- techniques for collecting information, including options, relevance and strengths and weaknesses of each method to ensure data is adequate and representative
- data analysis methods relevant to the audit process
- communication skills and techniques appropriate to the workplace to inform other personnel of audit outcomes and modified work practices
- technical knowledge relevant to the program being audited in order to:

- verify compliance
- assess adequacy of control measures
- relevance to industry standards
- purpose and responsibilities for maintaining records
- process to transition audit deficiencies into corrective action plans.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - skills must be demonstrated in a workplace setting or an environment that accurately represents a real workplace to collect data and observe compliance
- resources, equipment and materials:
  - workplace program documentation
  - information systems and data collection technology
- specifications:
  - audit procedures and standards as applied in the workplace
  - relevant legislation, industry standards and codes of practice.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## FBPPPL3006 Report on workplace performance

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

### Application

This unit of competency describes the skills and knowledge required to collate and maintain workplace records to enable the monitoring and reporting of workplace performance.

The unit applies to individuals who work as team leaders with responsibility for monitoring and reporting on performance of a work area or section. This includes working in a range of known contexts and completing routine activities.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

### Pre-requisite Unit

Nil

### Unit Sector

People, Planning and Logistics (PPL)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Establish recording and reporting requirements	1.1 Identify the purpose of recording performance-related information 1.2 Confirm recording and reporting responsibilities with supervisor 1.3 Identify recording and reporting systems and formats
2. Maintain workplace information	2.1 Ensure records are complete, timely and accurate 2.2 Record performance information in required format to meet

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	workplace reporting requirements 2.3 Identify and correct or notify errors or discrepancies in recording to appropriate personnel 2.4 Identify, investigate and report variances according to workplace procedure 2.5 Assess, prioritise and address requests for information to meet required timelines
3. Maintain security of workplace information	3.1 Confirm levels of access and authority according to workplace security requirements 3.2 Maintain security of workplace records and reports in accordance with security access level 3.3 Identify and report security breaches to appropriate personnel

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Writing	<ul style="list-style-type: none"> <li>Accurately record and complete organisational documentation using clear language, correct spelling, grammar and terminology</li> </ul>
Oral communication	<ul style="list-style-type: none"> <li>Effectively participate in verbal exchanges using collaborative and inclusive techniques including active listening and questioning, and reading of verbal and non-verbal signals to convey and clarify information</li> </ul>
Get the work done	<ul style="list-style-type: none"> <li>Understand roles and responsibilities for tasks and make basic decisions on work completion parameters</li> </ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status



Code and title current version	Code and title previous version	Comments	Equivalence status
FBPPPL3006 Report on workplace performance	FDFPPL3002A Report on workplace performance	Updated to meet Standards for Training Packages  Minor changes to Performance Criteria to clarify intent	Equivalent unit

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# Assessment Requirements for FBPPPL3006 Report on workplace performance

## Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

## Performance Evidence

An individual demonstrating competency must satisfy all of the elements and performance criteria in this unit.

There must be evidence that the individual has reported on workplace performance on at least one occasion, including:

- confirming the reporting and recording systems and procedures for a specific work area
- recording information on work performance in accordance with reporting procedures
- reporting variances and inconsistencies
- maintaining security of work documentation.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- the purpose and responsibilities for the information records and reports to be maintained or produced, including accuracy levels and timelines
- types of information to be recorded, including but not limited to:
  - timesheets
  - log sheets
  - recipes/specifications
  - operating procedures
  - production statistics
  - downtime
  - labour
  - materials usage levels
- techniques used to collate and assess information, including typical recording outcomes to identify unusual or incorrectly recorded information

- likely causes of variation and related reporting responsibilities
- information system access levels and codes, such as levels within software
- effective communication strategies relevant to reporting role
- relevant regulatory and licensing, legislative requirements, industrial awards and agreements.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - skills must be demonstrated in a workplace setting or an environment that accurately represents a real workplace
- resources, equipment and materials:
  - performance data
  - recording/reporting formats and systems
- specifications:
  - workplace policies, codes of practice and procedures
  - relevant information on licensing, legislation and industrial awards and agreements.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## FBPPPL4001 Manage people in the work area

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package version 1.0

### Application

This unit of competency describes the skills and knowledge required to manage performance issues of people in the work area.

This unit applies to individuals with managerial responsibility for other people in a work area. It includes an understanding of different levels of response to performance issues, including formal procedures.

No licensing, legislative or certification requirements apply to this unit at the time of publication.

### Pre-requisite Unit

FBPPPL3001 Support and mentor individuals and groups

### Unit Sector

People, Planning and Logistics (PPL)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Provide information on performance expectations	1.1 Ensure workplace policies and procedures are current, accessible and in formats appropriate to the audience 1.2 Ensure performance-related information is current, accessible and in formats appropriate to the audience 1.3 Communicate work expectations, plans and objectives to team members

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
2. Provide coaching and support	<p>2.1 Demonstrate appropriate work behaviours and procedures to individuals and groups</p> <p>2.2 Identify skill development needs of individuals or groups according to workplace procedures according to workplace training need analysis practices</p> <p>2.3 Provide targeted skill development support to improve individual or group performance</p> <p>2.4 Encourage, value and reward positive performance according to workplace procedures</p>
3. Manage performance issues	<p>3.1 Identify signs of performance variation outside of that expected according to workplace objectives and targets</p> <p>3.2 Investigate reasons for performance variance according to workplace procedures</p> <p>3.3 Identify and implement appropriate responsive action to variances in performance</p> <p>3.4 Establish process for monitoring performance improvement according to workplace procedures</p>

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"><li>Analyses complex documentation from a variety of sources and consolidates information relating to performance policies and measures to determine requirements</li></ul>
Writing	<ul style="list-style-type: none"><li>Documents outcomes and discussions using industry relevant terminology</li><li>Accurately records and completes performance-related organisational documents using clear language, correct spelling, grammar and terminology</li></ul>
Numeracy	<ul style="list-style-type: none"><li>Performs mathematical calculations to analyse performance data to inform performance outcomes</li></ul>

Skill	Description
Oral communication	<ul style="list-style-type: none"> <li>Effectively participates in verbal exchanges using collaborative and inclusive techniques, including active listening and questioning, and reading of verbal and non-verbal signals to convey and clarify information on performance</li> </ul>
Get the work done	<ul style="list-style-type: none"> <li>Contributes to continuous improvement of current work practices by applying basic principles of analytical and lateral thinking</li> <li>Takes responsibility for planning, sequencing and prioritising tasks and own workload for efficiency and effective outcomes</li> <li>Applies systematic and analytical decision-making processes for complex and non-routine situations</li> <li>Responds to problems requiring resolution, drawing on past experiences of performance measures</li> </ul>
Interact with others	<ul style="list-style-type: none"> <li>Recognises when personal values and beliefs impact on work group activities and performance, and implements strategies to moderate the effect</li> <li>Collaborates with others sharing information to build strong work groups, and manages behaviours that are not conducive to a productive environment</li> </ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPPPL4001 Manage people in the work area	FDFPPL4001A Manage people in the work area	<p>Updated to meet Standards for Training Packages</p> <p>Minor changes to Performance Criteria for clarity</p>	Equivalent unit

## Links

Companion Volumes, including Implementation Guides, are available at VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# Assessment Requirements for FBPPPL4001 Manage people in the work area

## Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package version 1.0

## Performance Evidence

An individual demonstrating competency must satisfy all of the elements and performance criteria in this unit.

There must be evidence that the individual has managed performance issues of people in the work area on at least two separate occasions, including:

- determining performance expectations and communicating effectively with individuals in the workplace
- identifying performance variances and collecting relevant information
- providing coaching and support to team members according to needs determined by performance outcomes
- monitoring performance and addressing performance issues according to organisational guidelines.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- negotiation and problem-solving skills for managing people in the workplace
- workplace feedback and performance management systems and responsibilities, including:
  - personal levels of authority
  - performance counselling
  - disciplinary procedures
- company policies, procedures and related communication systems
- effect of personal style and behaviour on others in the work area and the importance of establishing effective relationships with people in the work area
- performance expectations and related communication systems/processes
- signs of different levels of performance, including:
  - performance indicators and measures

- assessment strategies for performance
- patterns and behaviour that lead to poor performance
- patterns and behaviour that leads to exceptional performance
- options and strategies to address performance issues, including:
  - rewards
  - disciplinary actions
- systematic approaches for structuring a discussion on poor performance, including:
  - clear statement of the problem
  - explanation of why it is a problem
  - action or change required
  - follow up action
- workplace and legal requirements to document performance and behavioural issues, including:
  - legal processes
  - how reported information may be used
- industrial awards and workplace agreements on employee rights and responsibilities related to work performance and the relationship between the award and site agreements
- communication skills to consult and communicate with relevant personnel
- records and recording systems and requirements for managing people in the workplace
- principles of motivation and effective teamwork.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - a workplace or an environment that accurately represents workplace conditions
- resources, equipment and materials:
  - workplace information recording systems, requirements and procedures
- specifications:
  - workplace policies and procedures
  - relevant industrial awards and agreements
- relationships (internal and/or external):
  - opportunities to interact with others using typical workplace communication processes

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.



## Links

Companion Volumes, including Implementation Guides, are available at VETNet -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## FBPPPL4002 Plan and coordinate production equipment maintenance

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 1.0.

### Application

This unit of competency describes the skills and knowledge required to plan and coordinate maintenance activities for production equipment.

This unit applies to individuals who take responsibility for their own work and coordinate and oversee employees responsible for the maintenance of production equipment.

All work must be carried out to comply with workplace procedures, in accordance with State/Territory work health and safety legislation that apply to the workplace.

No licensing, legislative or certification requirements apply to this unit at the time of publication.

### Pre-requisite Unit

Nil

### Unit Sector

People, Planning and Logistics (PPL)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Identify maintenance requirements according	1.1 Determine the approach for maintaining production equipment 1.2 Source and assess advice on equipment maintenance requirements

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
to workplace procedures	according to manufacturers' specifications 1.3 Assess and prioritise special maintenance requirements
2. Plan maintenance according to workplace procedures	2.1 Identify and secure resources required to carry out maintenance 2.2 Develop a maintenance schedule to provide reliable equipment performance with minimal disruption to production 2.3 Ensure the maintenance schedule takes account of production schedules, equipment capability, special maintenance requirements, efficient resource utilisation, workplace health and safety requirements, and workplace environmental guidelines 2.4 Record the maintenance schedule in the appropriate workplace format 2.5 Define and communicate responsibilities for implementing the maintenance schedule 2.6 Consult personnel affected by the maintenance program and advise of maintenance process
3. Monitor implementation of the maintenance schedule according to workplace procedures	3.1 Monitor progress of maintenance to identify variance to schedule 3.2 Identify, assess and address unplanned events that could affect the schedule 3.3 Identify and communicate potential failure to meet maintenance deadlines to relevant personnel in a timely manner
4. Contribute to the improvement of equipment reliability	4.1 Review equipment performance information to identify patterns or trends 4.2 Identify factors that affect equipment reliability 4.3 Consult production and maintenance personnel to identify opportunities to improve equipment reliability 4.4 Take action to improve equipment reliability 4.5 Review the maintenance schedule and related programs and procedures to reflect improvements

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"> <li>Reads and interprets manuals, specifications, and other documentation from a variety of sources and consolidates information to determine maintenance requirements</li> <li>Analyses and consolidates test results and data from a range of sources, against defined criteria and requirements</li> </ul>
Writing	<ul style="list-style-type: none"> <li>Develops procedural material for a specific audience using clear and industry relevant language in order to convey explicit information, requirements and recommendations</li> </ul>
Numeracy	<ul style="list-style-type: none"> <li>Performs mathematical calculations to analyse maintenance data and scheduling statistics to inform maintenance activities</li> </ul>
Oral communication	<ul style="list-style-type: none"> <li>Uses collaborative and inclusive techniques, including active listening and questioning, and reading of verbal and non-verbal signals to convey and clarify information</li> </ul>
Interacts with others	<ul style="list-style-type: none"> <li>Uses a range of strategies to establish a sense of connection and build rapport co workers</li> <li>Elicits feedback from others in order to improve workgroup behaviours and processes</li> </ul>
Get the work done	<ul style="list-style-type: none"> <li>Contributes to continuous improvement of current work practices by applying principles of analytical and lateral thinking</li> <li>Takes responsibility for planning, sequencing and prioritising tasks and own workload for efficiency and effective outcomes</li> <li>Applies systematic and analytical decision-making processes for complex and non-routine situations</li> <li>Addresses problems and initiates procedures in response, applying problem-solving processes to determine solutions</li> </ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPPPL4002 Plan and coordinate production equipment	FDFPPL4002A Plan and coordinate maintenance	Updated to meet Standards for Training Packages  Minor changes to Performance Criteria	Equivalent unit

maintenance		for clarity	
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## Links

Companion Volumes, including Implementation Guides, are available at VETNet -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# Assessment Requirements for FBPPPL4002 Plan and coordinate production equipment maintenance

## Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 1.0.

## Performance Evidence

An individual demonstrating competency must satisfy all of the elements and performance criteria in this unit.

There must be evidence that the individual has planned and coordinated maintenance for production equipment, on at least two separate occasions, including:

- obtaining information and planning maintenance requirements for production equipment
- establishing and documenting a maintenance schedule
- coordinating the implementation and maintenance schedule with appropriate personnel
- managing unplanned maintenance issues
- assessing equipment reliability and contributing to improved maintenance schedules and procedures
- managed work health and safety, environmental and food safety requirements and responsibilities associated with maintenance activities.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- maintenance approaches and differences between reactive, preventative and proactive maintenance models, including:
  - reliability centred maintenance (RCM)
  - total productive maintenance (TCM)
- company systems, processes and responsibilities for:
  - collecting equipment condition information
  - analysing information
  - carrying out required servicing and maintenance
- sources of data on equipment performance and maintenance requirements, related recording systems and data analysis tools, including:
  - manufacturer specifications

- equipment capability data
- condition monitoring data
- equipment operation/performance reports and log sheets
- workplace environmental guidelines
- maintenance requirements and scheduling processes, including:
  - production process
  - impact of scheduling on production
  - maintenance activities
  - maintenance priorities
  - effect on related activities, including purchasing and contract management
- factors that influence the reliability of equipment, including:
  - equipment capability
  - equipment/process design
  - operating conditions and practices
- methods used to measure effectiveness of maintenance, including:
  - plant availability
  - cost of maintenance
  - downtime
  - alternate resource utilisation
- work health and safety, environmental and food safety requirements and responsibilities associated with maintenance activities
- relevant personnel and departments to be consulted/notified of maintenance schedule and related amendments, including the information relevant to each group/person
- conditions that can affect achievement of the maintenance schedule, including:
  - unusual or unplanned conditions
  - related options for response to equipment breakdowns/emergencies
- communication skills to consult and communicate with relevant personnel
- recording systems and requirements, including relevant software packages
- process improvement procedures for production equipment
- capacity of maintenance service suppliers to provide required services.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - a workplace or an environment that accurately represents workplace conditions
- resources, equipment and materials:
  - production equipment
- specifications:
  - maintenance scheduling system and associated information and communication systems

- relevant standard operating procedures (SOPs)
- workplace information recording systems, requirements and procedures
- access to Work Health and Safety Acts or Occupational Health and Safety Acts, regulations and related industry standards and codes of practice
- workplace environmental requirements.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volumes, including Implementation Guides, are available at VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>



## FBPPPL4003 Schedule and manage production

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 1.0.

### Application

This unit of competency describes the skills and knowledge required to plan, monitor and adjust schedules to meet operational requirements for production activities.

The unit applies to individuals who take responsibility for their own work and provide and communicate solutions to others with some responsibility for planning and scheduling production.

No licensing, legislative or certification requirements apply to this unit at the time of publication.

### Pre-requisite Unit

Nil

### Unit Sector

People, Planning and Logistics (PPL)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1 Identify production requirements	1.1 Use forecast and sales information to identify production requirements according to workplace procedures 1.2 Identify production priorities to satisfy demand
2 Confirm resource requirements for production requirements	2.1 Check stock levels of raw materials, ingredients, packaging components and consumables are available and can fulfil production requirements

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	<p>2.2 Check equipment capacity and status are ready and available for production activities according to workplace procedures</p> <p>2.3 Ensure human resources are available against production requirements</p>
3 Develop and communicate the production schedule	<p>3.1 Develop the production schedule to meet demand and delivery timelines within production capacity and budget</p> <p>3.2 Ensure the production schedule takes account of stock levels, storage capacity, equipment capacity and product mix to minimise stock and product holdings and maximise production efficiency</p> <p>3.3 Record the production schedule in the appropriate workplace format</p> <p>3.4 Make available the production schedule to relevant personnel in a timely manner</p>
4 Monitor production schedule	<p>4.1 Monitor production to identify actual and potential barriers to achieving the schedule</p> <p>4.2 Monitor resource usage rates to identify potential shortages</p> <p>4.3 Identify, assess and address unplanned events that could affect the schedule</p>
5 Adjust production schedules	<p>5.1 Adjust production schedules to take account of identified changed conditions</p> <p>5.2 Negotiate and communicate changes to the production schedule to relevant personnel in a timely manner</p> <p>5.3 Identify resource implications of amended schedules and access resources to meet requirements</p> <p>5.4 Identify and communicate potential failure to meet delivery deadlines to relevant personnel in a timely manner</p> <p>5.5 Amend schedule documentation as required to meet workplace reporting requirements</p>
6 Review production schedule development process	<p>6.1 Review the production scheduling process to identify opportunities for improvement</p> <p>6.2 Identify, investigate and report variances in production against schedule to appropriate personnel</p> <p>6.3 Consult personnel responsible for implementing the schedule to identify improvement opportunities</p>

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	6.4 Revise the scheduling process to reflect improvements

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"> <li>Analyses and consolidates test results and data from a range of sources, against defined criteria and requirements</li> </ul>
Writing	<ul style="list-style-type: none"> <li>Writes, edits and proofreads documents to ensure clarity of meaning, and accuracy and consistency of information</li> </ul>
Numeracy	<ul style="list-style-type: none"> <li>Performs mathematical calculations to analyse labour, costs and quantities to accurately produce schedules and manage resources and budget</li> </ul>
Oral communication	<ul style="list-style-type: none"> <li>Uses collaborative and inclusive techniques, including active listening and questioning, and reading of verbal and non-verbal signals to convey and clarify information and to confirm understanding</li> </ul>
Navigate the world of work	<ul style="list-style-type: none"> <li>Accepts responsibility and ownership for the task and makes decisions on completion parameters and the need of coordination with others</li> </ul>
Interact with others	<ul style="list-style-type: none"> <li>Selects and uses appropriate conventions and protocols when communicating with clients and co-workers in a range of work contexts</li> <li>Elicits feedback and provides feedback to others in order to improve workgroup behaviours</li> </ul>
Get the work done	<ul style="list-style-type: none"> <li>Takes responsibility for planning, sequencing and prioritising tasks and own workload for efficiency and effective outcomes</li> <li>Applies systematic and analytical decision-making processes for complex and non-routine situations</li> <li>Investigates new and innovative ideas as a means to continuously improve, work practices and processes</li> <li>Monitors progress of plans and schedules, and reviews and changes them to meet new demands and priorities</li> </ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPPPL4003 Schedule and manage production	FDFPPL4003A Schedule and manage production	Updated to meet Standards for Training Packages  Minor Changes to PCs for clarity	Equivalent unit

## Links

Companion Volumes, including Implementation Guides, are available at VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# Assessment Requirements for FBPPPL4003 Schedule and manage production

## Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 1.0.

## Performance Evidence

An individual demonstrating competency must satisfy all of the elements and performance criteria in this unit.

There must be evidence that the individual has scheduled and managed production on at least one occasion, including:

- confirming production requirements and resource implications
- establishing and documenting a production schedule
- coordinating implementation of production schedule
- ensuring production schedule is communicated and reported to all appropriate personnel
- identifying and managing unplanned production issues and amending the process
- reviewing and assessing production outcomes against schedule and making required adjustments to plans.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- role and scope of the scheduling function, including:
  - flow of information to and from the scheduling process
  - impact of scheduling for related planning, purchasing, production and despatch processes
- factors to be taken into account in planning the schedule, including the inter-relationships between factors, including:
  - customer requirements
  - stock levels and supply options
  - use-by codes
  - production capacity and availability
  - labour requirements and availability
  - product compatibility

- capacity of related processes and/or storage facilities
- transport capacity
- consequences of failing to meet delivery timelines, including:
  - customer expectations
  - stock-out fines
  - effects on customer relationship
- company's preferred approach to managing customer relations
- planning process and efficiencies to meet production requirements, including:
  - stock shelf-life of product and consumables
  - product compatibility characteristics of raw materials/ingredients
  - packaging components
  - availability of consumables
- equipment capacity to ensure that production quantities and timelines are achievable
- methods used to monitor actual-to-planned production and key performance indicators (KPIs)
- communication strategies used when consulting relevant personnel and departments for production schedule and related amendments
- conditions that can affect achievement of schedule, including conditions that are unusual or unplanned and related options for response
- options for maximising resource utilisation and minimising waste, including options for alternate resource allocation in response to unplanned events
- recording systems and requirements required for planning and scheduling production
- process improvement procedures for production activities
- competencies required by the work process and competencies required by the work team.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - a workplace or an environment that accurately represents workplace conditions
- resources, equipment and materials:
  - production area and related functions and resources
- specifications:
  - relevant standard operating procedures (SOPs)
  - scheduling systems and associated information and communication systems
  - workplace information recording systems, requirements and procedures.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volumes, including Implementation Guides, are available at VETNet -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## FBPPPL4004 Optimise a work process

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 1.0.

### Application

This unit of competency describes the skills and knowledge required to assess, investigate and make recommendations to optimise the performance of a work process, system or area.

The unit applies to individuals responsible for facilitation of consultation and performance improvement processes. This includes communicating solutions for a range of predictable and unpredictable problems.

No licensing, legislative or certification requirements apply to this unit at the time of publication.

### Pre-requisite Unit

FDFPPL3001A Participate in improvement processes

### Unit Sector

People, Planning and Logistics (PPL)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Establish work process scope	1.1 Identify the scope and flow of the work process 1.2 Identify and collect work process information according to workplace practices
2. Assess work process performance	2.1 Evaluate work process performance against plan and benchmark information



Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	2.2 Investigate variations in work process performance 2.3 Identify opportunities for improvement
3. Develop a plan to optimise process performance	3.1 Develop and report recommendations for improvements in the appropriate format 3.2 Present an implementation plan in the appropriate format according to workplace policy
4. Implement, monitor and evaluate process improvement	4.1 Review workplace documentation to reflect process improvement 4.2 Identify and communicate changes to roles and responsibilities of workplace personnel involved in implementing the optimisation plan 4.3 Identify, negotiate and secure resources to support implementation 4.4 Implement and monitor process changes 4.5 Apply continuous improvement procedures to evaluate and refine process optimisation

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"> <li>Reads and interprets process information and work documentation, and consolidates information to assess and determine requirements and performance</li> </ul>
Writing	<ul style="list-style-type: none"> <li>Accurately records information and prepares correspondence and documentation using clear language to organisational formats and protocols</li> </ul>
Numeracy	<ul style="list-style-type: none"> <li>Performs mathematical calculations to interpret and compare numerical information against benchmarks</li> </ul>
Oral communication	<ul style="list-style-type: none"> <li>Effectively participates in verbal exchanges using collaborative and inclusive techniques to convey and clarify information and negotiate with others</li> </ul>
Interact with others	<ul style="list-style-type: none"> <li>Selects and uses appropriate conventions and protocols when communicating with co-workers in a range of work contexts</li> </ul>

Skill	Description
Get the work done	<ul style="list-style-type: none"><li>• Takes responsibility for planning, sequencing and prioritising tasks and own workload for efficiency and effective outcomes</li><li>• Addresses problems and initiates standard procedures in response, applying problem-solving processes in determining solutions</li><li>• Investigates new and innovative ideas as a means to continuously improve work practices and processes through consultation, formal and analytical thinking</li></ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPPPL4004 Optimise a work process	FDFPPL4004A Optimise a work process	Updated to meet Standards for Training Packages	Equivalent unit

## Links

Companion Volumes, including Implementation Guides, are available at VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# Assessment Requirements for FBPPPL4004 Optimise a work process

## Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 1.0.

## Performance Evidence

An individual demonstrating competency must satisfy all of the elements and performance criteria in this unit.

There must be evidence that the individual has optimised a work process on at least one occasion, including:

- establishing parameters of work process
- analysing performance measures and identifying opportunities for improvement
- developing plan to optimise work process
- appropriately engaging other personnel in planning implementation
- monitoring implementation and analysing outcomes
- engaging continuous improvement processes to sustain and improve outcomes.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- process/workflow mapping purpose and techniques
- characteristics of the work process, including typical factors that affect process performance, including:
  - fluctuations in demand/throughput
  - quality of raw material/ingredient inputs
  - human resources availability/competencies
  - equipment configuration, capacity and performance
  - process capability
  - changeover times
  - cost of services
- criteria against which to assess performance, including key performance indicators (KPIs), production plans/schedules, budgets and relevant benchmark information

- technical knowledge to identify and assess current performance and identify improvement opportunities and proposals
- process improvement tools and techniques
- related workplace documentation and systems
- relevant personnel and departments to be consulted/notified of optimisation implementation plan
- recording systems and requirements for reorting on work processes.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - a workplace or an environment that accurately represents workplace conditions
- resources, equipment and materials:
  - process improvement tools and techniques
- specifications:
  - information systems, including recording and retrieval systems
- relationships (internal and/or external):
  - opportunities to interact with others using typical workplace communication processes

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volumes, including Implementation Guides, are available at VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## FBPPPL4005 Manage supplier agreements and contracts

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 1.0.

### Application

This unit of competency describes the skills and knowledge required to manage internal and external agreements for the supply of goods and/or services.

The unit applies to individuals with an understanding of supply chain relationships and arrangements who are responsible for the evaluation and management of new and existing contractual arrangements.

No licensing, legislative or certification requirements apply to this unit at the time of publication.

### Pre-requisite Unit

Nil

### Unit Sector

People, Planning and Logistics (PPL)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Establish contractual arrangements	1.1 Document and agree specifications for the delivery of goods and/or services according to workplace procedures 1.2 Develop and document criteria for selection of suppliers according to workplace procedures 1.3 Identify and assess potential suppliers against selection criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	1.4 Select preferred supplier according to the selection criteria and workplace procedures 1.5 Negotiate, agree and document supply contracts with parties 1.6 Develop contingency plans in the event of supplier failure to deliver
2. Administer and evaluate delivery of goods and/or services against agreements	2.1 Assess the quality of goods and services supplied against specifications 2.2 Determine and document non-compliance and implement corrective action within the terms of contractual arrangements 2.3 Manage relationships with suppliers to support effective delivery according to workplace procedures 2.4 Review and renegotiate vendor agreements as required to ensure timely delivery and cost-effective supply of quality goods and services

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"> <li>Analyses and consolidates information and data from a range of sources, against defined criteria and requirements, and checks for accuracy and completeness</li> </ul>
Writing	<ul style="list-style-type: none"> <li>Accurately records information, prepares contracts and correspondence using clear language and organisational formats and protocols</li> </ul>
Numeracy	<ul style="list-style-type: none"> <li>Applies modelling skills to identify, analyse and evaluate costings, production scheduling, time durations and human resource allocations for contract development and monitoring</li> </ul>
Oral communication	<ul style="list-style-type: none"> <li>Uses collaborative and inclusive techniques including active listening, questioning and verbal and non-verbal signals to convey and clarify information and to confirm understanding during negotiations</li> </ul>
Navigate the world of	<ul style="list-style-type: none"> <li>Takes responsibility for following explicit and implicit policies, procedures and legislative requirements for contract development</li> </ul>

Skill	Description
work	
Interact with others	<ul style="list-style-type: none"><li>• Implements strategies for a diverse range of colleagues and clients in order to build rapport and foster strong relationships</li></ul>
Get the work done	<ul style="list-style-type: none"><li>• Monitors progress of production plans and schedules, and reviews and manages them to meet new demands and priorities</li><li>• Applies systematic and analytical decision-making processes for complex and non-routine situations</li><li>• Investigates new and innovative ideas as a means to develop contacts through negotiation and analytical thinking</li></ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPPPL4005 Manage supplier agreements and contracts	FDFPPL4007A Manage supplier agreements and contracts	Updated to meet Standards for Training Packages  Minor changes to Performance Criteria for clarity	Equivalent unit

## Links

Companion Volumes, including Implementation Guides, are available at VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# Assessment Requirements for FBPPPL4005 Manage supplier agreements and contracts

## Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 1.0.

## Performance Evidence

An individual demonstrating competency must satisfy all of the elements and performance criteria in this unit.

There must be evidence that the individual has managed internal and external agreements for the supply of goods and/or services on at least two separate occasions, including:

- determining resource requirements for work area
- establishing contractual conditions and determining most suitable supplier
- monitoring supply against agreements and contracts, and promptly identifying and acting on variances
- establishing supply contingencies
- maintaining relationships with suppliers to support service.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- approaches to supply chain management, including:
  - customer-led models and efficient consumer response (ECR)
  - contrast between independent company operations versus chain partnership arrangements
  - the implications of a supply chain approach for the nature of the relationships between the company and its suppliers, including level of information sharing and cooperation
- the company's approach to supply chain management, and related systems and documentation in place to support internal management and supplier relationship management, including levels of authority
- appropriate technical knowledge to determine capacity of a supplier to deliver and to assess quality of goods/service supplied
- legal rights and responsibilities of both the company and the supplier



- the role of benchmarking in determining appropriate criteria for supplier selection and contract management
- appropriate measures of contract delivery and relative importance/weighting given by the company
- induction and duty of care responsibilities for contractors working on-site where relevant.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - a workplace or an environment that accurately represents workplace conditions
- resources, equipment and materials:
  - sample agreements and documents
  - technical support and advice as appropriate
- specifications:
  - workplace procurement policies and related documentation and systems
  - relevant legislation, codes of practice and agreements
  - information management systems, including planning, recording and reporting systems
- relationships (internal and/or external):
  - access to suppliers of goods and services.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volumes, including Implementation Guides, are available at VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## FBPPPL4006 Manage a work area within budget

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 1.0.

### Application

This unit of competency describes the skills and knowledge required to plan, allocate and monitor work to achieve required outcomes within budget allocations.

The unit applies to individuals who are team leaders and are typically required to reach decisions on resource utilisation within budget constraints, and provide and communicate solutions to a range of predictable and sometimes unpredictable problems.

No licensing, legislative or certification requirements apply to this unit at the time of publication.

### Pre-requisite Unit

Nil

### Unit Sector

People, Planning and Logistics (PPL)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Identify and plan within budget parameters	1.1 Determine budget requirements and parameters for work area 1.2 Determine, confirm and allocate resources to achieve production schedule within budget and according to workplace policy
2. Monitor resource utilisation against budget	2.1 Monitor performance to identify actual or potential variance to budget

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	2.2 Identify, investigate and report variances to budget according to workplace reporting requirements 2.3 Determine and communicate potential failure to achieve targets within budget to appropriate personnel in a timely manner 2.4 Take action to minimise negative impact of variance
3. Communicate budget information	3.1 Make budget information available to relevant personnel in a timely manner 3.2 Report budget information in the appropriate format and timelines according to workplace reporting requirements 3.3 Make contributions to the development of workplace budgets

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"> <li>Analyses and consolidates information and data from a range of sources, against defined criteria and requirements and checks for accuracy and completeness</li> </ul>
Writing	<ul style="list-style-type: none"> <li>Prepares and produces documents and reports that convey complex relationships between performance data and budget for further analysis</li> </ul>
Numeracy	<ul style="list-style-type: none"> <li>Performs mathematical calculations to analyse financial information, costs and values to accurately determine performance</li> </ul>
Oral communication	<ul style="list-style-type: none"> <li>Presents complex financial information in formal situations using clear and convincing language, tone and pace appropriate for the audience and purpose</li> </ul>
Navigate the world of work	<ul style="list-style-type: none"> <li>Takes responsibility for following explicit and implicit policies, procedures and legislative requirements</li> </ul>
Interact with others	<ul style="list-style-type: none"> <li>Selects and uses appropriate conventions and protocols when communicating budget outcomes with co-workers</li> </ul>
Get the work done	<ul style="list-style-type: none"> <li>Makes routine decisions and implements standard procedures for routine tasks, using formal decision-making processes for more</li> </ul>

Skill	Description
	<p>complex and non-routine situations</p> <ul style="list-style-type: none"><li>• Contributes to continuous improvement of budget and work practices by applying principles of analytical thinking</li></ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPPPL4006 Manage a work area within budget	FDFPPL4006A Manage a work area within budget	<p>Updated to meet Standards for Training Packages</p> <p>Minor changes to Performance Criteria for clarity</p>	Equivalent unit

## Links

Companion Volumes, including Implementation Guides, are available at VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# Assessment Requirements for FBPPPL4006 Manage a work area within budget

## Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 1.0.

## Performance Evidence

An individual demonstrating competency must satisfy all of the elements and performance criteria in this unit.

There must be evidence that the individual has managed a work area within budget, on at least one occasion, including:

- determining resource requirements for work area
- establishing budget and allocations for work area
- monitoring performance against budget targets and promptly identifying and acting on variances to minimise impact
- ensuring budget is communicated and reported to all appropriate personnel.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- the basis on which budgets developed for the work area are constructed, including:
  - what information is provided to budget planners
  - how to read and interpret budget information
  - how to apply budget information
  - monitoring/reviewing work performance
- basic accounting concepts, including:
  - fixed and variable costs
  - rate of return
  - methods of allocating indirect costs
  - methods of measuring investment value
- accounting models, including:
  - the difference between traditional accounting approaches and more recent developments

- accounting implications of value added management
- life-cycle costing
- triple bottom line
- company approach to cost management so that decisions on resource allocation are within both budget allocations and company philosophy/preferred approach
- resource requirements to meet production and related costs
- process knowledge to identify factors likely to impact on achieving budget
- relevant personnel and departments to be consulted/advised of budget information, including:
  - information relevant to each group/person
  - the importance of providing accurate and timely information to each of the stakeholders
- options for maximising resource utilisation and minimising costs
- budget recording and reporting systems and requirements
- process improvement procedures for managing budgets.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - a workplace or an environment that accurately represents workplace conditions
- resources, equipment and materials:
  - resource and budget allocations
  - work performance information
- specifications:
  - cost management specifications and requirements
- relationships:
  - opportunities to interact with others using typical workplace communication processes

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volumes, including Implementation Guides, are available at VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## FBPPPL4007 Manage internal audits

### Modification History

Release	Comments
Release 1	This version released with the FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

### Application

This unit of competency covers the skills and knowledge required to support the management of internal audit processes across a range of programs.

This unit applies to individuals who conduct internal audit processes to support externally audited programs. In this context, auditing must occur in an area that the person is not directly responsible for and where they are required to follow a formal, structured process. In addition to this standard, an auditor would typically work within the audit procedures as outlined in the relevant International Organization for Standardization (ISO) standard.

When conducting a food safety audit, *FBPAUD4003 Conduct food safety audits* should be used.

No occupational licensing or certification requirements apply to this unit at the time of publication.

### Pre-requisite Unit

Nil

### Unit Sector

People, Planning and Logistics (PPL)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Plan an audit	1.1 Negotiate and agree on the purpose and scope of the audit 1.2 Identify and secure information and resources required to conduct

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	the audit 1.3 Develop and negotiate an audit schedule to meet audit scope and timelines
2. Prepare for an audit	2.1 Determine audit information sample and collection tools 2.2 Identify and communicate roles, responsibilities and authority levels of the audit team to audit team members as appropriate 2.3 Inform affected work areas and personnel of schedule, and advise of their role in the process
3. Monitor the audit process	3.1 Ensure information collected is adequate, representative and meets audit requirements 3.2 Analyse information to assess adequacy of performance against program objectives 3.3 Review records to confirm compliance with the program 3.4 Observe compliance with the program in the workplace 3.5 Identify issues requiring corrective action 3.6 Address obstacles to achieving audit within agreed timelines
4. Report and follow up audit outcomes	4.1 Report situations presenting an imminent and serious risk to the program objectives in accordance with reporting requirements and workplace procedures 4.2 Prepare audit reports to address audit scope requirements 4.3 Communicate the results of the audit to appropriate personnel according to audit purpose and requirements and workplace procedures 4.4 Develop and negotiate a corrective action plan within level of responsibility 4.5 Monitor and confirm implementation of corrective action as set out in the corrective action plan 4.6 Ensure that breaches in corrective action plan are followed up, and action is taken or reported according to level of responsibility and audit purpose



## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"> <li>Analyse documentation from a variety of sources to determine and compare audit requirements</li> </ul>
Writing	<ul style="list-style-type: none"> <li>Prepare and produce documentation using clear and detailed language in order to convey explicit information, requirements and recommendations for audits</li> </ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPPPL4007 Manage internal audits	FDFPPL4008A Manage internal audits	Updated to meet Standards for Training Packages  Prerequisites removed  Minor changes to Performance Criteria for clarity	Equivalent unit

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# Assessment Requirements for FBPPPL4007 Manage internal audits

## Modification History

Release	Comments
Release 1	This version released with the FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

## Performance Evidence

An individual demonstrating competency in this unit must satisfy all of the elements and performance criteria of this unit.

There must be evidence that the individual has managed at least one internal audit, including:

- determining scope of and purpose of audit
- scheduling audit and making required arrangements
- establishing information collection parameters
- selecting information collection techniques
- collecting and analysing information
- ensuring compliance with workplace procedures
- developing and communicating required corrective action plan
- completing workplace records as required.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- the purpose and intent of the program being audited, including the requirements of relevant national, state and local government legislation relating to program purpose and requirements
- auditor roles, responsibilities and legal obligations as relevant to the audit purpose, including:
  - responsibilities of both internal and external auditors
  - different types of auditors and of authorised officers who may be involved in the audit program
- legal responsibilities for reporting imminent and serious non-conformities
- audit requirements relating to work health and safety and quality environmental management audits

- requirements and procedures for certification/registration of auditors and authorised officers according to audit type
- frequency and scope of audit requirements to meet legal obligations
- appropriate ethical conduct of auditors as set out in codes of ethics of auditors, and additional requirements as may be determined by the workplace
- the purpose and stages involved in the audit process, including compliance with International Organization for Standardization (ISO) audit standards as appropriate to audit requirements
- workplace information and related information management systems
- techniques for collecting information, including:
  - appropriate sampling techniques
  - information collection methods
  - the strengths and weaknesses of each method to ensure data is adequate and representative
  - an understanding of techniques identified in the relevant ISO standard.
- data analysis methods relevant to the audit process
- communication skills and techniques, including appropriate questioning, observation and related communication skills to support information collection, appropriate to the workplace
- technical knowledge relevant to the program being audited in order to verify the adequacy of:
  - workplace safety processes and standards
  - control methods, including industry standards/practice
  - monitoring and recordkeeping
  - validation processes
  - corrective action/process improvement procedures
- where program control methods or limits vary from industry standards or where there are no industry standards, technical knowledge required to assess data used by the business to validate acceptable limits (this may be addressed by identifying and involving appropriate technical expertise)
- information management and communication systems to document and communicate audit outcomes in appropriate formats.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - skills must be demonstrated in a workplace setting or an environment that accurately represents a real workplace
- resources, equipment and materials:
  - workplace program and related documentation
- specifications:
  - relevant legislation

- audit procedures and standards, including any external standards relevant to the audit, including ISO standards
- advice on related technical industry standards and codes of practice
- information systems and data collection technology.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## FBPPPL5001 Design and maintain programs to support legal compliance

### Modification History

Release	Comments
Release 1	This version released with the FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

### Application

This unit of competency describes the skills and knowledge required to design, review and maintain programs to support policy implementation and regulatory compliance.

This unit applies to individuals who work in areas such as health and safety in the workplace, environmental management, food safety, quality and Good Manufacturing Practice (GMP). In workplaces where workplace programs are already in place, the outcomes of this unit can apply to the assessment and review of such programs. Programs involve hazard identification, risk assessment and control.

No licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

### Pre-requisite Unit

Nil

### Unit Sector

People, Planning and Logistics (PPL)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Establish workplace program and operating requirements	1.1 Ensure the workplace program reflects workplace policy objectives 1.2 Identify, negotiate and agree roles and responsibilities to support

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	implementation 1.3 Identify and secure resources required to support implementation
2. Establish consultative arrangements	2.1 Establish consultative mechanisms to encourage input from workplace personnel and their representatives 2.2 Ensure information on consultation processes is available, appropriate and accessible 2.3 Establish procedures to ensure that issues raised are promptly addressed 2.4 Establish procedures to ensure that the outcomes of consultation are promptly communicated
3. Develop program procedures	3.1 Ensure procedures outline the process for identifying and reporting actual and potential hazards 3.2 Document risk assessment and control measures, and take account of the hierarchy of control 3.3 Define corrective action and emergency response procedures 3.4 Establish procedures to review program adequacy and effectiveness 3.5 Monitor program implementation to ensure procedures are followed and effective
4. Review program information and recording systems	4.1 Record information to meet program and legislative requirements 4.2 Ensure record formats and systems are appropriate and accessible to users
5. Establish or review training arrangements to support program implementation and maintenance	5.1 Identify roles and responsibilities of participants involved in implementing the program 5.2 Identify mentoring, coaching and training requirements for each role 5.3 Provide mentoring, coaching and training support to meet the identified needs
6. Maintain a workplace program	6.1 Provide information on program purpose, requirements, roles and responsibilities in formats appropriate to purpose and audience 6.2 Follow program procedures, and identify and address supervisory responsibilities 6.3 Analyse workplace program records to identify patterns of

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	<p>non-conformance and opportunities for ongoing improvement</p> <p>6.4 Address hazard identification, risk assessment and control when planning, designing and reviewing change in the workplace</p> <p>6.5 Ensure evaluation of program effectiveness takes account of developments in best practice to support continuous program improvement</p> <p>6.6 Establish and communicate program audit procedures</p>

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"> <li>Analyse documentation from a variety of sources to determine compliance requirements</li> </ul>
Writing	<ul style="list-style-type: none"> <li>Write, edit and proofread documents to ensure clear purpose and accuracy</li> <li>Develop procedures for a specific audience using clear language in order to convey explicit information, requirements and recommendations</li> </ul>
Navigate the world of work	<ul style="list-style-type: none"> <li>Work independently or with others in making decisions to achieve organisation outcomes</li> <li>Ensure knowledge of legislative requirements is kept up-to-date in order to create and provide accurate information</li> </ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPPPL5001 Design and maintain programs to	FDFPPL5001A Design and maintain programs to support	Updated to meet Standards for Training Packages	Equivalent unit

Code and title current version	Code and title previous version	Comments	Equivalence status
support legal compliance	legal compliance	Prerequisites removed	

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>



# Assessment Requirements for FBPPPL5001 Design and maintain programs to support legal compliance

## Modification History

Release	Comments
Release 1	This version released with the FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

## Performance Evidence

An individual demonstrating competency in this unit must satisfy all of the elements and performance criteria of this unit.

There must be evidence that the individual has designed (or reviewed) and maintained programs to support legal compliance on at least one occasion, including:

- identifying the legal and regulatory framework for the program
- defining the parameters of the program
- determining compliance requirements for the program and conducting risk analysis
- identifying and engaging relevant personnel through consultative mechanisms
- designing and/or developing program procedures to ensure compliance
- completing detailed reporting to support the maintenance of compliance
- providing support to personnel to ensure compliance
- reviewing and monitoring program to ensure compliance is maintained.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- objectives of legislation, regulations and relevant codes of practice relating to the program area, including the roles of relevant regulatory bodies
- existence of International Organization for Standardization (ISO) 22000:2005 Food safety management systems, ISO 22003:2013 Food safety management systems, and ISO 10393:2013 Consumer product recall
- company policy objectives, related legal requirements and workplace context, including:
  - resource capacity
  - authority levels

- existing systems and processes, including consultation processes, development/training systems, process improvement, document control and recording requirements
- workplace program objectives, their relationship to policy objectives and to related programs, including the benefits of the program for the company, employees and the wider community as appropriate
- the concept of a management system as it applies to the program area
- the advantages and disadvantages of stand-alone and integrated programs, including:
  - variations in legal obligations and compliance systems
  - objectives and structure of related policies and programs, as well as consideration of audit trails, as appropriate
- principles and processes for hazard identification, risk assessment and control
- the program area and/or internal and external experts and resources to support design and implementation
- the circumstances, conditions or practices likely to result in program non-compliance, and related control options
- technical knowledge and/or access to technical expertise to ensure adequacy of risk control methods and response to non-compliance/emergencies
- problem-solving and process improvement techniques and processes
- program review methods and responsibilities, including internal audit arrangements, as well as external audit arrangements, and where the program supports legal compliance obligations, requirements and frequency of audits.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - skills must be demonstrated in a workplace setting or an environment that accurately represents a real workplace
- resources, equipment and materials:
  - technical support and advice as appropriate to the program area
- specifications:
  - workplace policies, business and performance plans and budgets
  - relevant legislation, codes of practice and agreements
  - workplace procedures and related management systems relevant to the program area.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## FBPRBK1001 Finish products

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package version 1.0

### Application

This unit of competency describes the skills and knowledge required to prepare finishing mediums and finish baked products in a food preparation environment.

The unit applies to individuals who undertake defined routine work activities under supervision. This includes identifying and reporting simple issues and problems.

All work must be carried out to comply with workplace procedures, in accordance with State/Territory food safety, and work health and safety, regulations and legislation that apply to the workplace.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

### Pre-requisite Unit

Nil

### Unit Sector

Retail baking (RBK)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare for work	1.1 Confirm product finishing task requirements with supervisor 1.2 Identify and report work health and safety hazards to supervisor

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	1.3 Select and wear personal protective equipment as directed 1.4 Check work area and personal hygiene meet food safe conditions 1.5 Select finishing equipment and check readiness for use 1.6 Select finishing ingredients and check quality and quantity
2. Prepare finishing materials	2.1 Measure ingredient quantities to meet recipe specification 2.2 Combine and mix ingredients to make finishing mediums 2.3 Identify finishing medium problems, and report to supervisor
3. Apply finishes	3.1 Use finishing techniques to apply finishing mediums to products 3.2 Portion finished products as directed 3.3 Check finished products, and report identified problems to supervisor 3.4 Store finished products to meet food safe conditions
4. Complete work	4.1 Clean equipment and work area to meet food safe conditions 4.2 Dispose of waste according to workplace requirements

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"> <li>Interprets key information from simple recipes, ingredient labels and simple end-product specifications</li> </ul>
Oral communication	<ul style="list-style-type: none"> <li>Comprehends simple instructions</li> <li>Asks clarifying questions and responds to answers</li> </ul>
Numeracy	<ul style="list-style-type: none"> <li>Locates and interprets numerical information in simple recipes and product labels</li> <li>Estimates approximate quantities, and uses equipment to measure ingredient weights and volumes</li> </ul>
Navigate the world of work	<ul style="list-style-type: none"> <li>Follows explicit procedures immediately relevant to own role</li> </ul>

Skill	Description
Interact with others	<ul style="list-style-type: none"><li>Follows clearly defined instructions, seeking assistance when necessary</li></ul>
Get the work done	<ul style="list-style-type: none"><li>With assistance, sequences and implements the steps involved in completing finishing tasks</li></ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPRBK1001 Finish products	FDFRB1001A Finish products	Updated to meet Standards for Training Packages  Changes to elements and performance criteria to increase clarity	Equivalent unit

## Links

Companion Volumes, including Implementation Guides, are available at VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# Assessment Requirements for FBPRBK1001 Finish products

## Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package version 1.0

## Performance Evidence

An individual demonstrating competency in this unit must satisfy all of the elements and performance criteria of this unit.

There must be evidence that the individual has finished baked products, including:

- finishing at least one of the following three products:
  - simple sponge cakes
  - simple breads
  - simple non laminated pastries
- preparing and using at least three of the following nine finishing mediums:
  - seeds
  - savoury topping
  - egg wash
  - cream
  - icing
  - glaze
  - icing sugar
  - coconut or nuts
  - fruits
- using at least four of the following finishing techniques:
  - piping or spreading icing
  - simple piping using piping bags and nozzles for cream or icing
  - applying seeds to bread products
  - pre-prove scoring bread products
  - pre-bake finishing non laminated pastry products
  - post-bake finishing non laminated pastry products
  - post-bake finishing sponge cake products
  - applying savoury toppings to bread products
  - post-bake finishing products with coconut or nuts

- glazing
- dusting
- dipping.

The applied finishing must meet the supervisor's instructions.

The finished product must be stored in food safe conditions.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- workplace health and safety requirements, including personal protective equipment (PPE), applicable to finishing products
- food safe conditions applicable to using and storing finishing mediums, including:
  - temperature
  - containers
  - date labelling
  - sanitary cleanliness
- types and storage conditions of finishing mediums, including:
  - seeds
  - savoury toppings
  - egg wash
  - creams
  - icings
  - glazes
  - icing sugar
  - coconut or nuts
  - dried fruits
  - finishing techniques used to finish baked products, including:
    - simple sponge cakes
    - simple breads
    - simple non laminated pastries
- basic functions, safe use and cleaning methods of finishing equipment techniques for measuring ingredient quantities, including:
  - by weight
  - by volume
  - by count
  - by estimation
- basic principles of portioning products
- product storage requirements, including refrigeration and room temperature storage

- basic product finishing terminology.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - an environment that accurately represents a food preparation area
- resources, equipment and materials:
  - personal protective equipment
  - bowls
  - piping bags and nozzles
  - scrapers
  - pallet knives
  - knives
  - products required to be decorated in the performance evidence
  - ingredients that meet finishing mediums required in the performance evidence
  - cleaning products and tools
- specifications:
  - simple recipe specifications for preparation of finishing mediums and finishing instructions required in the performance evidence
  - simple end-product quality requirements to meet the product and finishing types required in the performance evidence
- relationships (internal and/or external):
  - supervisor.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volumes, including Implementation Guides, are available at VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>



## FBPRBK2001 Assist non laminated pastry production

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package version 1.0

### Application

This unit of competency describes the skills and knowledge required to assist in the production of non laminated pastry products in a food preparation environment.

The unit applies to individuals who undertake routine work, including identifying and solving predictable problems under supervision.

All work must be carried out to comply with workplace procedures, in accordance with State/Territory food safety, and work health and safety, regulations and legislation that apply to the workplace.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication

### Pre-requisite Unit

Nil

### Unit Sector

Retail baking (RBK)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare for work	1.1 Confirm work requirements for non laminated pastry production with supervisor 1.2 Identify and report work health and safety hazards to supervisor

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	1.3 Select and wear personal protective equipment according to safety requirements 1.4 Check work area and personal hygiene meet food safe conditions 1.5 Select equipment and check readiness for use 1.6 Select ingredients and check quality and quantity 1.7 Prepare foils and trays for use
2. Mix and form pastry doughs	2.1 Measure ingredient quantities to meet recipe specification 2.2 Load, operate and monitor equipment to mix non laminated pastry dough 2.3 Roll and form dough to meet product type, and form into foils or place on trays 2.4 Check non laminated pastry dough to identify routine pastry problems, and report to supervisor
3. Bake pastry products	3.1 Confirm dough readiness and baking settings with supervisor 3.2 Set and warm oven to prepare for baking 3.3 Fill unbaked non laminated pastry products as required to meet product type 3.4 Load oven and monitor baking to achieve even bake 3.5 Unload and cool baked products to meet product type 3.6 Fill baked non laminated pastry product as required to meet product type 3.7 Check baked products to identify routine baked non laminated pastry product faults, and report to supervisor
4. Complete work	4.1 Clean equipment and work area to meet food safe conditions 4.2 Dispose of waste according to workplace requirements

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"> <li>Interprets key information from recipe specifications, ingredient labels and end-product specifications</li> </ul>
Numeracy	<ul style="list-style-type: none"> <li>Identifies and comprehends measurements, including ingredient quantities in recipe specifications, dates on ingredient labels, mixing times and speeds, baking temperatures and times, and dough and baked product dimensions</li> <li>Estimates approximate quantities, and uses equipment to measure weights, volumes and dimensions</li> <li>Uses understanding of three-dimensional shapes to form dough and check non laminated pastry product shapes</li> </ul>
Oral communication	<ul style="list-style-type: none"> <li>Uses listening and questioning techniques to communicate and obtain specific information and confirm understanding</li> </ul>
Navigate the world of work	<ul style="list-style-type: none"> <li>Follows explicit procedures immediately relevant to own role</li> </ul>
Interact with others	<ul style="list-style-type: none"> <li>Follows clearly defined instructions, seeking assistance when necessary</li> </ul>
Get the work done	<ul style="list-style-type: none"> <li>With assistance, sequences and implements the steps involved in assisting non laminated pastry production</li> <li>Uses digital technologies to set process parameters</li> </ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPRBK2001 Assist non laminated pastry production	FDFRB2005A Assist cake, pastry and biscuit production	Redesigned unit that includes content from previous unit	No equivalent unit

## Links

Companion Volumes, including Implementation Guides, are available at VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# Assessment Requirements for FBPRBK2001 Assist non laminated pastry production

## Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package version 1.0

## Performance Evidence

An individual demonstrating competency in this unit must satisfy all of the elements and performance criteria of this unit.

There must be evidence that the individual has assisted non laminated pastry production, including:

- assisting production of the following three non laminated pastry products:
  - unfilled non laminated pastry product
  - filled non laminated pastry product with sweet pastry and sweet filling
  - filled non laminated pastry product with savoury pastry and savoury filling
- incorporating the following two filling techniques:
  - pre-bake filling
  - post-bake filling
- incorporating the following six production processes and techniques:
  - filling using a sweet filling
  - filling using a savoury filling
  - forming pastry products
  - cutting non laminated pastry
  - rolling non laminated pastry
  - baking non laminated pastry products
- baking using the following two pastry equipment types:
  - pastry foils or tins
  - baking trays
- checking the bake of the non laminated pastry by baked colour.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- workplace health and safety requirements, including personal protective equipment applicable to assisting in pastry production
- food safe conditions applicable to assisting in pastry production
- types and storage requirements for:
  - flour
  - eggs
  - fats
- types of ingredient checks, including:
  - type
  - quantity
  - use-by date
  - damaged packaging
- pastry production processes, including:
  - mixing ingredients
  - shaping pastry doughs
  - pre-bake filling
  - post-bake filling
  - baking pastries
- techniques for measuring ingredients, including:
  - by weight
  - by volume
  - by count
  - by estimation
- typical baking parameters, including oven temperatures
- required characteristics of non laminated pastry doughs, including softness and feel
- required characteristics of baked pastry products, including:
  - baked colour
  - baking shrinkage
- techniques for cleaning the work area used in pastry production
- techniques for disposing of waste from pastry production
- basic pastry product and process terminology.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - a food preparation environment

- resources, equipment and materials:
  - personal protective equipment (PPE)
  - sink and wash area
  - mixing equipment
  - rolling pin
  - pastry foils or tins
  - baking trays
  - electronic or analogue scales
  - oven suitable to bake products specified in the performance evidence
  - ingredients to create the pastry products specified in the performance evidence
- specifications:
  - supervisor instructions
  - end-product specifications for the pastry products specified in the performance evidence
  - a production schedule for non laminated pastry that includes product quality requirements, scheduling, recipes to suit output requirements, sequence and mixing processes and baked parameters
- relationships (internal and/or external):
  - supervisor
- timeframes:
  - according to the production schedule.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volumes, including Implementation Guides, are available at VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## FBPRBK2002 Use food preparation equipment to prepare fillings

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package version 1.0

### Application

This unit of competency describes the skills and knowledge required to prepare fillings for use in bread, cake or pastry products using food preparation equipment in a commercial baking environment.

The unit applies to individuals who undertake routine work under supervision. This includes identifying and providing solutions to a limited range of predictable problems.

All work must be carried out to comply with workplace procedures, in accordance with State/Territory food safety, and work health and safety, regulations and legislation that apply to the workplace.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

### Pre-requisite Unit

Nil

### Unit Sector

Retail baking (RBK)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare for work	1.1 Confirm baked product filling types and volumes with supervisor 1.2 Identify and report work health and safety hazards to supervisor 1.3 Select and wear personal protective equipment according to safety

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	requirements 1.4 Check work area and personal hygiene meet food safe conditions 1.5 Select food preparation equipment and check readiness for use 1.6 Check knives are sharp and ready for use 1.7 Select ingredients and check quality and quantity 1.8 Thaw, condition and reheat ingredients as required in food safe conditions to prepare for use
2. Prepare fillings	2.1 Measure ingredient quantities to meet recipe specification 2.2 Prepare ingredients using knives to make cuts 2.3 Blend and thicken cold fillings to meet recipe specifications 2.4 Blend and cook hot fillings to meet recipe specifications 2.5 Check fillings to identify routine filling faults, and report to supervisor 2.6 Cool cooked fillings to meet food safe conditions 2.7 Store prepared fillings to meet food safe conditions
3. Complete work	3.1 Clean equipment and work area to meet food safe conditions 3.2 Dispose of waste according to workplace requirements

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"> <li>Interprets key information from recipe specifications and ingredient labels</li> </ul>
Numeracy	<ul style="list-style-type: none"> <li>Identifies and interprets numerical information in recipes, including quantities, mixing speeds and times, and cooking temperatures and times</li> <li>Uses understanding of angles, linear dimensions and shapes to cut ingredients to size and shape</li> <li>Estimates approximate quantities, and uses equipment to measure</li> </ul>



Skill	Description
	ingredient weights and volumes
Oral communication	<ul style="list-style-type: none"><li>Uses listening and questioning techniques to communicate and obtain specific information and confirm understanding</li></ul>
Navigate the world of work	<ul style="list-style-type: none"><li>Follows explicit procedures immediately relevant to own role</li></ul>
Interact with others	<ul style="list-style-type: none"><li>Follows clearly defined instructions, seeking assistance when necessary</li></ul>
Get the work done	<ul style="list-style-type: none"><li>With assistance, sequences and implements the steps involved in preparing fillings</li></ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPRBK2002 Use food preparation equipment to prepare fillings	FDFRB2002A Prepare fillings	Updated to meet Standards for Training Packages  Changes to food preparation equipment and techniques	No equivalent unit

## Links

Companion Volumes, including Implementation Guides, are available at VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# Assessment Requirements for FBPRBK2002 Use food preparation equipment to prepare fillings

## Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package version 1.0

## Performance Evidence

An individual demonstrating competency in this unit must satisfy all of the elements and performance criteria of this unit.

There must be evidence that the individual has used food preparation techniques to prepare fillings, including:

- preparing and using the following ingredients in fillings:
  - fruit
  - meat and vegetables or poultry and vegetables
  - dairy
- preparing the following three types of fillings:
  - cold fruit filling
  - hot meat and vegetables or hot poultry and vegetables filling
  - hot custard filling
- checking condition of ingredients used, including:
  - any indicators of food spoilage
  - quality
  - use-by date
  - damaged packaging
- using the following nine items of food preparation equipment:
  - knife sharpening steels or stones
  - cook's knife
  - paring knife
  - scales
  - peelers, corers or slicers
  - thermometers
  - whisks: fine or coarse stainless steel wire
  - cutting boards

- cooking pots
- preparing and cutting fruits and vegetables
- using the following three cooking activities:
  - boiling
  - shallow frying (pan-fry, sauté or stir-fry)
  - microwaving.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- workplace health and safety requirements, including personal protective equipment (PPE), applicable to using food preparation equipment to prepare fillings
- food safety conditions applicable to using food preparation equipment to prepare fillings
- types and storage requirements of ingredients, including:
  - fruit and vegetables
  - dairy products
  - meat and poultry
  - custard
- cookery methods, including:
  - boiling
  - shallow frying, including pan-fry, sauté or stir-fry
  - microwaving
- meaning and role of mise en place in the process of preparing and cooking fillings
- procedures for storing fillings, including refrigeration, freezing and shelf-life
- techniques for preparing and cutting fruit and vegetables, including:
  - cleaning
  - peeling
  - slicing
  - dicing
- time and temperature requirements for:
  - thawing
  - conditioning
  - reheating
  - cooking
  - cooling of cooked food
- safe use and functions of food preparation equipment, including:
  - knife sharpening steels and stones
  - cook's knife
  - paring knife
  - scales

- peelers, corers and slicers
- thermometers
- fine and coarse stainless steel wire whisks
- cutting boards
- cooking pots
- techniques for measuring ingredients, including:
  - by weight
  - by volume
  - by count
  - by estimation
- typical cooking parameters, including:
  - cooking temperatures
  - cooking times
- required characteristics of fillings, including:
  - texture
  - consistency
  - flavour
- typical filling preparation faults, including:
  - undercooked and overcooked
  - incorrect ingredients
  - incorrect ingredient quantities
- contamination and cross-contamination risks associated with ingredients and processes
- techniques for cleaning equipment for food preparation
- techniques for cleaning the work area used for food preparation
- techniques for disposing of waste from food preparation
- filling and filling preparation terminology.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - a commercial bakery or an environment that accurately represents workplace conditions
- resources, equipment and materials:
  - refrigeration unit with shelving
  - storage facilities
  - microwave
  - hot plates or cook tops
  - knife sharpening steels and stones
  - cook's knife

- paring knife
- scales
- peelers, corers or slicers
- thermometers
- whisks: fine or coarse stainless steel wire
- cutting boards
- cooking pots
- cleaning cloths
- dustpans and brooms
- garbage bins and bags
- hand towel dispenser and hand towels
- mops and buckets
- separate hand basin for hand washing
- sponges, brushes and scourers
- tea towels
- commercial cleaning and sanitising agents and suitable chemicals for cleaning bakeries, equipment and food storage areas
- personal protective equipment (PPE)
- ingredients that meet filling types required in the performance evidence
- specifications:
  - supervisor instructions
  - recipes that meet filling types required in the performance evidence
  - end-product specifications to meet filling types required in the performance evidence
- relationships (internal and/or external):
  - workplace supervisor
- timeframes:
  - according to work requirements.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volumes, including Implementation Guides, are available at VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## FBPRBK2003 Assist sponge cake production

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package version 1.0

### Application

This unit of competency describes the skills and knowledge required to assist in the production of sponge cake products in a food preparation environment.

The unit applies to individuals who undertake routine work, including identifying and solving predictable problems under supervision.

All work must be carried out to comply with workplace procedures, in accordance with State/Territory food safety, and work health and safety, regulations and legislation that apply to the workplace.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

### Pre-requisite Unit

Nil

### Unit Sector

Retail baking (RBK)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare for work	1.1 Confirm work requirements for sponge cake production with supervisor 1.2 Identify and report work health and safety hazards to supervisor 1.3 Select and wear personal protective equipment according to safety

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	requirements 1.4 Check work area and personal hygiene meet food safe conditions 1.5 Select equipment and check readiness for use 1.6 Select ingredients and check quality and quantity 1.7 Prepare tins and trays for use
2. Prepare batters	2.1 Measure ingredient quantities to meet recipe specifications 2.2 Load, operate and monitor equipment to mix sponge batters 2.3 Check sponge batters to identify routine batter faults, and report to supervisor
3. Bake sponge cake products	3.1 Confirm baking readiness and baking settings with supervisor 3.2 Deposit batters into tins or trays, and set oven temperature to prepare for baking 3.3 Load oven and monitor baking to achieve even bake 3.4 Unload and cool products to meet product type 3.5 Check baked products to identify routine baked sponge cake product faults, and report to supervisor
4. Decorate sponge cake products	4.1 Confirm decorating requirements with supervisor 4.2 Assemble decorating ingredients and equipment, and prepare for use 4.3 Apply decorating materials to meet decorating requirements 4.4 Check decorated products to identify routine decorating problems, and report to supervisor
5. Complete work	5.1 Clean equipment and work area to meet food safe conditions 5.2 Dispose of waste according to workplace requirements

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"> <li>Interprets key information from recipe specifications, ingredient labels and end-product specifications</li> </ul>
Numeracy	<ul style="list-style-type: none"> <li>Identifies and comprehends measurements, including ingredient quantities in recipe specifications, dates on ingredient labels, mixing times and speeds, baking temperatures and times, and end-product dimensions</li> <li>Estimates approximate quantities, and uses equipment to measure weights, volumes and dimensions</li> <li>Uses understanding of three-dimensional shapes to check sponge cake product shapes</li> </ul>
Oral communication	<ul style="list-style-type: none"> <li>Uses listening and questioning techniques to communicate and obtain specific information and confirm understanding</li> </ul>
Navigate the world of work	<ul style="list-style-type: none"> <li>Follows explicit procedures immediately relevant to own role</li> </ul>
Interact with others	<ul style="list-style-type: none"> <li>Follows clearly defined instructions, seeking assistance when necessary</li> </ul>
Get the work done	<ul style="list-style-type: none"> <li>With assistance, sequences and implements the steps involved in assisting sponge cake production</li> <li>Uses digital technologies to set process parameters</li> </ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPRBK2003 Assist sponge cake production	FDFRB2005A Assist cake, pastry and biscuit production	Redesigned unit that includes content from previous unit	No equivalent unit

## Links

Companion Volumes, including Implementation Guides, are available at VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>



# Assessment Requirements for FBPRBK2003 Assist sponge cake production

## Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package version 1.0

## Performance Evidence

An individual demonstrating competency in this unit must satisfy all of the elements and performance criteria of this unit.

There must be evidence that the individual has assisted sponge cake production, including:

- assisting production of the following four types of sponge cake products:
  - simple decorated sponge
  - sponge roll
  - individual portioned sponge product
  - cupcake
- mixing a premix sponge batter
- using the following two processes:
  - piping
  - hand depositing
- baking using sponge tins and baking trays
- testing the bake of sponges using the following two techniques:
  - skewer testing
  - physical pressing for baked quality
- applying the following five decorating techniques to sponges:
  - dipping
  - dusting
  - creaming
  - icing
  - jamming.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- workplace health and safety requirements, including personal protective equipment (PPE), applicable to assisting in cake production
- food safe conditions applicable to assisting sponge cake production
- types and storage requirements of ingredients, including:
  - premixes
  - eggs
  - sugar
- types of ingredient checks, including:
  - type
  - quantity
  - use-by date
  - damaged packaging
- types and purpose of cake production processes, including:
  - mixing sponge ingredients
  - hand depositing sponge batters
  - piping sponge batters
  - baking basic sponges
- techniques for preparing sponge tins and trays, including:
  - greasing
  - papering
- techniques for measuring ingredient quantities, including:
  - by weight
  - by volume
  - by count
  - by estimation
- typical baking parameters, including oven temperatures
- required characteristics of baked sponge products, including:
  - baked aeration
  - baked colour
- purpose and techniques for cleaning equipment, including:
  - round sponge tins
  - baking trays
  - small sponge tins or cupcake tins
- decorating techniques, including:
  - dipping
  - dusting
  - creaming
  - icing
  - jamming
- techniques for testing the bake, including:

- skewer testing
- physical pressing for baked quality
- techniques for cleaning the work area for cake production
- techniques for disposing of waste from cake production
- sponge cake product and process terminology.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - a food preparation environment
- resources, equipment and materials:
  - personal protective equipment
  - sink and wash area
  - mixing equipment
  - baking trays and sponge tins
  - small sponge tins or cupcake tins
  - electronic or analogue scales
  - oven suitable to bake the sponge cakes specified in the performance evidence
  - ingredients to create the sponge cake products specified in the performance evidence
- specifications:
  - supervisor instructions
  - a schedule to support the production of basic cake, including product quality, sponge cake scheduling, recipes to suit output and batter requirements, sequence and mixing processes for sponge mixes, and baking parameters for sponge cake production
- relationships (internal and/or external):
  - supervisor
- timeframes:
  - according to the production schedule.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volumes, including Implementation Guides, are available at VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## FBPRBK2004 Assist basic bread production

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package version 1.0

### Application

This unit of competency describes the skills and knowledge required to assist in the production of basic bread products in a food preparation environment.

The unit applies to individuals who undertake routine work, including identifying and solving predictable problems under supervision.

All work must be carried out to comply with workplace procedures, in accordance with State/Territory food safety, and work health and safety, regulations and legislation that apply to the workplace.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

### Pre-requisite Unit

Nil

### Unit Sector

Retail baking (RBK)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare for work	1.1 Confirm work requirements for bread production with supervisor 1.2 Identify and report work health and safety hazards to supervisor 1.3 Select and wear personal protective equipment according to safety

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	requirements 1.4 Check work area and personal hygiene meet food safe conditions 1.5 Select equipment and check readiness for use 1.6 Select ingredients and check quality and quantity 1.7 Prepare trays and pans for use
2. Prepare bread dough	2.1 Measure ingredient quantities to meet recipe specifications 2.2 Load ingredients into mixer in required ingredient placement 2.3 Operate and monitor mixer to mix dough 2.4 Divide, scale, mould and rest dough to meet required dough size and shape 2.5 Final mould dough and load onto trays and pans 2.6 Prove dough ready for baking 2.7 Check dough to identify routine dough faults, and report to supervisor
3. Bake dough	3.1 Confirm dough readiness and baking settings with supervisor 3.2 Set and warm oven to prepare for baking 3.3 Load oven and monitor baking to achieve even bake 3.4 Unload and cool baked products to meet product type 3.5 Check baked products to identify routine basic bread product faults, and report to supervisor 3.6 Transfer basic bread products for presentation and storage in food safe conditions
4. Complete work	4.1 Clean equipment and work area to meet food safe conditions 4.2 Dispose of waste according to workplace requirements

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"> <li>Interprets key information from recipe specifications, ingredient labels and end-product specifications</li> </ul>
Numeracy	<ul style="list-style-type: none"> <li>Identifies and interprets numerical information, including ingredient quantities in recipe specifications, dates on product labels, mixing times and speeds, baking temperatures and times, and finished product dimensions</li> <li>Estimates approximate quantities, and uses equipment to measure weights, volumes and dimensions</li> <li>Divides dough into equal portions by estimated weight</li> <li>Uses understanding of three-dimensional shapes to mould and check basic bread product shapes</li> </ul>
Oral communication	<ul style="list-style-type: none"> <li>Uses listening and questioning techniques to communicate and obtain specific information and confirm understanding</li> </ul>
Navigate the world of work	<ul style="list-style-type: none"> <li>Follows explicit procedures immediately relevant to own role</li> </ul>
Interact with others	<ul style="list-style-type: none"> <li>Follows clearly defined instructions, seeking assistance when necessary</li> </ul>
Get the work done	<ul style="list-style-type: none"> <li>With assistance, sequences and implements the steps involved in assisting basic bread production</li> <li>Uses digital technologies to set process parameters</li> </ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPRBK2004 Assist basic bread production	FDFRB2004A Provide assistance for bread products	<p>Updated to meet Standards for Training Packages</p> <p>Minor changes to elements and performance criteria to increase clarity</p>	Equivalent unit

## Links

Companion Volumes, including Implementation Guides, are available at VETNet -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# Assessment Requirements for FBPRBK2004 Assist basic bread production

## Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package version 1.0

## Performance Evidence

An individual demonstrating competency in this unit must satisfy all of the elements and performance criteria of this unit.

There must be evidence that the individual has assisted in the production of white bread products, including:

- preparing and mixing the following two dough types:
  - premix dough
  - instant dough/no time dough/scratch mix dough
- producing the following five bread product types:
  - round bread roll variety
  - long bread roll variety
  - bread loaf variety
  - basic plaited bread
  - savoury bread variety
- applying the following three techniques for moulding dough:
  - rounding
  - batons
  - plaiting
- baking basic bread using the following bread baking equipment:
  - bread tins
  - bread baking trays
- applying the following three finishing techniques:
  - pre-prove scoring
  - seeding
  - dusting.



## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- workplace health and safety requirements, including personal protective equipment (PPE), applicable to assisting basic bread production
- food safe conditions applicable to assisting basic bread production
- types and storage requirements of ingredients, including:
  - premixes
  - flour
  - water
  - yeast
- the purpose of basic bread production processes, including:
  - mixing ingredients
  - moulding basic bread
  - proving basic bread
  - baking basic bread
- techniques for measuring ingredient quantities, including:
  - by weight
  - by volume
  - by count
  - by estimation
- techniques for preparing bread tins and trays, including oiling/greasing and paper lining
- typical baking parameters, including oven temperatures
- required characteristics of basic bread products, including:
  - baked colour
  - final shape
- techniques for cleaning the work area for bread production
- techniques for disposing of waste from bread production
- basic bread product and process terminology.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - a food preparation environment
- resources, equipment and materials:
  - personal protective equipment
  - sink and wash area
  - mixing equipment
  - electronic or analogue scales

- scrapers
- baking trays and tins
- oven suitable to bake the products specified in the performance evidence
- ingredients that are needed to create the basic bread products specified in the performance evidence
- specifications:
  - supervisor instructions
  - end-product specifications for the basic bread products specified in the performance evidence
  - a production schedule to support the production of basic bread, including product quality, dough scheduling, recipes to suit output and dough requirements, sequence and mixing processes for premix doughs and scratch/no time/instant doughs, and baking parameters for basic breads
- relationships (internal and/or external):
  - supervisor
- timeframes:
  - according to the production schedule.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volumes, including Implementation Guides, are available at VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## FBPRBK2005 Maintain ingredient stores

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package version 1.0

### Application

This unit of competency describes the skills and knowledge required to maintain ingredient stores in a commercial baking environment.

The unit applies to individuals who undertake routine work under supervision. This includes identifying and providing solutions to a limited range of predictable problems.

All work must be carried out to comply with workplace procedures, in accordance with State/Territory food safety, and work health and safety, regulations and legislation that apply to the workplace.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

### Pre-requisite Unit

Nil

### Unit Sector

Retail baking (RBK)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Maintain stock quality	1.1 Confirm required stock food safe storage conditions with supervisor 1.2 Check date codes to identify out-of-date stock

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	1.3 Inspect stock to identify damage and spoilage 1.4 Protect stock from cross-contamination to maximise use 1.5 Check stock to identify stock quality problems for supervisor
2. Maintain perishables quality	2.1 Identify perishables and confirm required food safe storage conditions with supervisor 2.2 Measure, record and check perishables temperatures meet food safe storage conditions 2.3 Rotate perishables to maximise use 2.4 Check perishables to identify stock quality problems for supervisor
3. Maintain stock levels	3.1 Confirm required stock levels with supervisor 3.2 Use safe manual handling techniques to handle ingredient stores 3.3 Check ingredient levels and replenish as needed to maintain required levels 3.4 Clean ingredient storage equipment to meet food safe conditions 3.5 Complete store records according to workplace requirements

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"> <li>Interprets key information from stock labels</li> </ul>
Writing	<ul style="list-style-type: none"> <li>Completes stores records using required format and language</li> </ul>
Numeracy	<ul style="list-style-type: none"> <li>Identifies and comprehends measurements, including stock volumes</li> <li>Interprets safe food condition temperature range requirements for perishables and stores</li> </ul>
Oral communication	<ul style="list-style-type: none"> <li>Uses listening and questioning techniques to communicate and obtain specific information and confirm understanding</li> </ul>
Navigate the world of	<ul style="list-style-type: none"> <li>Follows explicit procedures immediately relevant to own role</li> </ul>

Skill	Description
work	
Interact with others	<ul style="list-style-type: none"><li>Follows clearly defined instructions, seeking assistance when necessary</li></ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPRBK2005 Maintain ingredient stores	Not applicable	New unit	No equivalent unit

## Links

Companion Volumes, including Implementation Guides, are available at VETNet -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# Assessment Requirements for FBPRBK2005 Maintain ingredient stores

## Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package version 1.0

## Performance Evidence

An individual demonstrating competency in this unit must satisfy all of the elements and performance criteria of this unit.

There must be evidence that the individual has maintained ingredient stores, including:

- maintaining the following six types of bakery stock:
  - dairy ingredients
  - frozen ingredients
  - tinned ingredients
  - raw ingredients
  - refrigerated goods
  - dry goods
- checking stock temperatures and storage temperatures for perishables
- undertaking rotation of stock
- identifying and reporting out-of-date stock during the rotation of stock
- cleaning the following six types of storage equipment:
  - dry storage tubs or bins
  - dry storage area
  - frozen storage area
  - small plastic containers with lids
  - refrigerated storage area
  - spray bottles.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- workplace health and safety requirements, including safe manual handling techniques, applicable to maintaining ingredient stores
- food safety conditions applicable to maintaining ingredient stores
- types, safe handling and storage requirements of bakery stock, including:
  - dairy ingredients
  - frozen ingredients
  - tinned ingredients
  - raw ingredients
  - refrigerated goods
  - dry goods
- types of ingredient containers and signs of damage and spoilage, including:
  - dry storage tubs and bins
  - small plastic containers
  - dry storage bags
  - refrigerated storage
  - canned goods
  - sealed bags
  - perishable items
  - spray bottles
- techniques for protecting ingredients from cross-contamination
- types of ingredient quality checks, including:
  - type
  - quantity
  - use-by date
  - damaged packaging
  - odour
  - colour
- stock rotation methods
- techniques for measuring and recording temperatures of:
  - perishables
  - frozen goods storage
  - refrigerated goods storage
  - dry goods storage
- techniques for checking date codes
- techniques for disposing of waste stock
- bakery stores terminology.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - a commercial bakery or an environment that accurately represents workplace conditions
- resources, equipment and materials:
  - personal protective equipment
  - thermometer
  - dry store area
  - temperature recording sheets
  - dry storage tubs or bins
  - small plastic containers with lids
  - dry storage bags
  - refrigerated storage
  - frozen storage
  - spray bottles
  - stock that meets ingredient types specified in the performance evidence
- specifications:
  - supervisor instructions
  - food safe conditions for ingredient stores
- relationships (internal and/or external):
  - supervisor
- timeframes:
  - according to work requirements.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volumes, including Implementation Guides, are available at VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>



## FBPRBK3001 Produce laminated pastry products

### Modification History

Release	Comments
Release 2	This version released with FBP Food, Beverage and Pharmaceutical Training Package version 2.0
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package version 1.0

### Application

This unit of competency describes the skills and knowledge required to produce laminated pastry products using pastry fats in a commercial baking environment.

This unit applies to individuals who apply a broad range of knowledge and skills with responsibility for their own work. This includes applying and communicating known solutions to predictable problems.

All work must be carried out to comply with workplace procedures, in accordance with State/Territory food safety, and work health and safety, regulations and legislation that apply to the workplace.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

### Pre-requisite Unit

Nil

### Unit Sector

Retail baking (RBK)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare for work	1.1 Confirm product types and volumes to schedule production 1.2 Calculate yield and adjust recipe to meet required production volumes 1.3 Confirm work area and work practices meet food safety and workplace health and safety requirements 1.4 Select and wear personal protective equipment according to safety requirements 1.5 Select laminated pastry equipment and check to confirm readiness for use 1.6 Select ingredients and check to confirm quality and quantity 1.7 Prepare tins and trays to meet work requirements
2. Prepare fillings for laminated pastry products	2.1 Select and handle perishables according to food safety requirements 2.2 Measure laminated pastry filling ingredient quantities to meet recipe specifications and prepare for use 2.3 Prepare fruit as required for product type 2.4 Blend and combine filling ingredients to meet product type 2.5 Check fillings to identify faults and rectify 2.6 Prepare and transfer fillings for storage as required in accordance with food safety requirements
3. Mix laminated pastry dough	3.1 Measure laminated pastry ingredient quantities to meet recipe specifications 3.2 Load ingredients into mixer in required ingredient sequence 3.3 Operate and monitor mixer to mix laminated pastry dough 3.4 Incorporate fat into laminated pastry dough for Scotch method pastry 3.5 Incorporate fat into finished pastry dough for English method pastry 3.6 Fold and laminate pastry dough with number of folds required to meet product type 3.7 Check laminated pastry dough to identify faults and rectify 3.8 Prepare and transfer laminated pastry dough for storage as required in accordance with food safety requirements

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
4. Form and fill laminated pastry products	4.1 Roll laminated pastry to thickness required for product type 4.2 Cut, slice and portion pastry as required for product type 4.3 Form pastry in shapes for filling as required for product type 4.4 Add fillings as required for product type 4.5 Load tins and trays to prepare for baking 4.6 Check laminated pastry products to identify faults and rectify
5. Pre-bake finish laminated pastry products	5.1 Prepare pre-bake finishing mediums to meet recipe specification 5.2 Pre-bake finish laminated pastry products to meet product type 5.3 Check pre-bake finished laminated pastry products to identify faults and rectify
6. Bake laminated pastry products	6.1 Set baking temperatures and times to prepare for baking 6.2 Load oven and monitor baking to achieve required bake for product type 6.3 Unload and transfer laminated pastry products to cool 6.4 Check laminated pastry product bake to identify faults and rectify
7. Finish laminated pastry products	7.1 Prepare finishing mediums to meet recipe specifications 7.2 Finish baked laminated pastry products to meet product type 7.3 Check finished laminated pastry products to identify faults and rectify 7.4 Prepare and transfer finished laminated pastry products for presentation and storage in accordance with packaging and food safety requirements
8. Complete work	8.1 Clean equipment and work area to meet housekeeping standards 8.2 Dispose of waste according to workplace requirements 8.3 Complete workplace records according to workplace requirements

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"> <li>Interprets key information from recipes, ingredient labels, baking equipment operating instructions, and end-product specifications</li> </ul>
Writing	<ul style="list-style-type: none"> <li>Prepares production schedules and completes production records using required format, language and structure</li> </ul>
Numeracy	<ul style="list-style-type: none"> <li>Identifies and comprehends ingredient quantities in recipes, dates on ingredient labels, temperature and timer settings and product dimensions</li> <li>Estimates approximate quantities, and uses equipment to measure ingredient weights and volumes, and pastry dimensions</li> <li>Performs calculations to adjust recipes using baking formulas, and allows for wastage</li> <li>Uses understanding of three-dimensional shapes to shape and portion products and check end-product shapes</li> <li>Interprets measurement information to set, monitor and adjust process parameters</li> <li>Completes production records using mathematical symbols and conventions</li> </ul>
Navigate the world of work	<ul style="list-style-type: none"> <li>Complies with workplace health and safety and food safety regulatory requirements relevant to a commercial baking operation</li> <li>Follows organisational policies and procedures relevant to own work role</li> </ul>
Get the work done	<ul style="list-style-type: none"> <li>Plans, organises and implements tasks required to achieve production outcomes</li> <li>Uses problem-solving skills to analyse product and process faults and decide on appropriate action</li> </ul>

## Range of Conditions

*This section specifies different work environments and conditions that may affect performance. Essential operating conditions that may be present (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) are included.*

Laminated pastry equipment must include:	<ul style="list-style-type: none"> <li>equipment, including:             <ul style="list-style-type: none"> <li>mechanical pastry sheeter or pastry break</li> <li>cool room</li> </ul> </li> </ul>
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	<ul style="list-style-type: none"> <li>equipment accessories, including: <ul style="list-style-type: none"> <li>cool room shelving</li> <li>mechanical pastry sheeter attachments or pastry break attachments</li> </ul> </li> <li>tools and utensils, including: <ul style="list-style-type: none"> <li>piecing bags</li> <li>pastry cutters</li> <li>flour brushes</li> <li>egg wash brushes</li> <li>rolling pin.</li> </ul> </li> </ul>
Pastry filling must include:	<ul style="list-style-type: none"> <li>sweet and savoury thickened and blended fillings.</li> </ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPRBK3001 Produce laminated pastry products Release 2	FBPRBK3001 Produce laminated pastry products Release 1	Corrected typographical error in Knowledge Evidence	Equivalent

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# Assessment Requirements for FBPRBK3001 Produce laminated pastry products

## Modification History

Release	Comments
Release 2	This version released with FBP Food, Beverage and Pharmaceutical Training Package version 2.0
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package version 1.0

## Performance Evidence

An individual demonstrating competency in this unit must satisfy all of the elements and performance criteria of this unit.

There must be evidence that the individual has produced laminated pastry products according to a production schedule, including:

- producing laminated puff or flaky pastry from scratch ingredients using the following two lamination styles and fat incorporation methods:
  - Scotch method
  - English method
- producing the following five laminated pastry products:
  - sweet filled laminated pastry slice
  - vegetable filled product
  - meat filled product
  - cream or custard filled product
  - fruit filled product
- using the following two ratios of fat to flour:
  - 50% half puff
  - 75% three quarter puff
- using the following two folding techniques:
  - three fold
  - book fold
- using the following four finishing techniques:
  - pre-bake finishing
  - post-bake finishing
  - cream finishing

- icing or fondant finishing
- producing the following four ingredients for filling laminated pastry products:
  - meat
  - vegetables
  - cream or custard
  - fruits
- incorporating the following seven processes:
  - folding
  - sheeting
  - laminating
  - filling
  - glazing
  - baking
  - finishing/decorating
- using the following two types of equipment for folding:
  - pastry sheeter or dough break to laminate
  - rolling pin to finish and transfer pastry
- selecting, using and cleaning the pastry cooking equipment listed in the range of conditions, including controlling electrical hazards applicable to cleaning
- documenting the production schedule, including the following seven considerations:
  - timings
  - volume requirements
  - product processing requirements
  - filling requirements for laminated pastry
  - finishing requirements for laminated pastry
  - recipe reformulation to minimise waste
  - bake parameters for laminated pastry.

Wastage that cannot be reused in production must be less than 5% of the weight of the original production schedule.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- workplace health and safety requirements, including personal protective equipment (PPE), applicable to producing laminated pastry products
- safe use and cleaning of pastry cooking equipment listed in the range of conditions, including electrical hazards

- regulatory requirements for food safety applicable to producing laminated pastry products, including temperature control and prevention of cross-contamination in the use of dairy, meat, poultry, fish and vegetable products
- considerations for production scheduling, including:
  - timings
  - volume requirements
  - product processing requirements
  - filling requirements for laminated pastry
  - recipe reformulation to minimise waste
  - finishing requirements for laminated pastry
  - bake parameters for laminated pastry
- characteristics and storage requirements of ingredients used in laminated pastry production, including:
  - fats and margarines
  - meat fillings
  - vegetable fillings
  - fruit fillings
  - custard fillings
  - glazes
- mixing methods for laminated pastry, including:
  - Scotch method
  - English method
  - fat ratios and incorporation into laminated pastry
  - development of protein
- methods for folding pastry, including:
  - book fold
  - three fold
  - number of turns
- purpose, techniques and requirements for finishing, including:
  - pre-bake glazing
  - post-bake glazing
  - caramelisation of sugars
  - decorating with creams
- settings for baking for pastry product types, including:
  - oven temperatures
  - baking times
- techniques to identify and rectify causes of shrinkage and its effect on the end product, including:
  - overworking pastry
  - use of too much dusting flour



- baking too hot
- not resting pastry prior to processing
- cause of steam generation in laminated pastry during baking
- techniques for retrieval of scrap, blending with unworked pastry and disposing of waste
- laminated pastry production terminology.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - a commercial bakery or an environment that accurately represents workplace conditions
- resources, equipment and materials:
  - personal protective equipment
  - equipment specified in the range of conditions
  - industrial mixer and attachments
  - industrial oven
  - sink and wash area
  - electronic or analogue scales
  - ingredients that meet the laminated pastry product types in the performance evidence
- specifications:
  - recipes that meet the laminated pastry product types required in the performance evidence
  - end-product quality specifications to meet the laminated product types required in the performance evidence
  - food safety code regulatory requirements applicable to producing laminated pastry products
- timeframes:
  - according to the production schedule.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## FBPRBK3002 Produce non laminated pastry products

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package version 1.0

### Application

This unit of competency describes the skills and knowledge required to produce non laminated pastry products using pastry fats in a commercial baking environment.

This unit applies to individuals who apply a broad range of knowledge and skills with responsibility for their own work. This includes applying and communicating known solutions to predictable problems.

All work must be carried out to comply with workplace procedures, in accordance with State/Territory food safety, and work health and safety, regulations and legislation that apply to the workplace.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

### Pre-requisite Unit

Nil

### Unit Sector

Retail baking (RBK)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare for work	1.1 Confirm product types and volumes to schedule production 1.2 Calculate yield and adjust recipe to meet required production volumes

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	1.3 Confirm work area and work practices meet food safety and workplace health and safety requirements 1.4 Select and wear personal protective equipment according to safety requirements 1.5 Select non laminated pastry cooking equipment and check to confirm readiness for use 1.6 Select ingredients and check to confirm quality and quantity 1.7 Prepare tins and trays to meet work requirements
2. Prepare fillings for non laminated pastry products	2.1 Select and handle perishables according to food safety requirements 2.2 Measure non laminated pastry filling ingredient quantities to meet recipe specification and prepare for use 2.3 Prepare fruit as required for product type 2.4 Blend and combine ingredients to meet product type 2.5 Check fillings to identify faults and rectify 2.6 Store fillings according to food safety requirements
3. Mix non laminated pastry dough	3.1 Measure pastry ingredient quantities to meet recipe specifications 3.2 Load ingredients into mixer in required sequence 3.3 Operate and monitor mixer to mix non laminated pastry dough 3.4 Check non laminated pastry dough to identify faults and rectify 3.5 Prepare and transfer non laminated pastry dough for storage as required in accordance with food safety requirements
4. Form and fill non laminated pastry products	4.1 Roll non laminated pastry to thickness as required for product type 4.2 Cut, slice and portion non laminated pastry as required for product type 4.3 Form non laminated pastry in required shapes for filling as required for product type 4.4 Add fillings as required for product type 4.5 Load tins and trays to prepare for baking 4.6 Check non laminated pastry products to identify faults and rectify
5. Form choux pastry	5.1 Cook fat in liquid to form boiled mass

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
products	5.2 Cook flour in boiled mass to form roux 5.3 Cool roux in preparation for folding in egg 5.4 Fold egg into roux to produce choux pastry 5.5 Pipe choux pastry onto trays ready for baking 5.6 Check pre-bake choux products to identify faults and rectify
6. Pre-bake finish non laminated pastry products	6.1 Prepare pre-bake finishing mediums to meet recipe specification 6.2 Pre-bake finish non laminated pastry products to meet end-product specification 6.3 Check pre-bake finished non laminated pastry products to identify faults and rectify
7. Bake non laminated pastry products	7.1 Set baking temperatures and times to prepare for baking 7.2 Blind bake with blind baking medium as required for product type 7.3 Load oven and monitor baking to achieve even bake and stability for product type 7.4 Unload and transfer non laminated pastry products to cool 7.5 Check non laminated pastry product bake to identify faults and rectify
8. Post-bake finish non laminated pastry products	8.1 Prepare finishing mediums to meet recipe specification 8.2 Melt chocolate in preparation for finishing non laminated pastry products 8.3 Finish baked non laminated pastry products to meet end-product specification 8.4 Check finished non laminated pastry products to identify faults and rectify 8.5 Prepare and transfer non laminated pastry products for presentation and storage in accordance with packaging and food safety requirements
9. Complete work	9.1 Clean equipment and work area to meet housekeeping standards 9.2 Dispose of waste according to workplace requirements 9.3 Complete workplace records according to workplace requirements

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"><li>Interprets key information from recipes, ingredient labels, baking equipment operating instructions and end-product specifications</li></ul>
Writing	<ul style="list-style-type: none"><li>Prepares production schedules and completes production records using required format, language and structure</li></ul>
Numeracy	<ul style="list-style-type: none"><li>Identifies and comprehends ingredient quantities in recipes, dates on ingredient labels, temperature and timer settings and product dimensions</li><li>Estimates approximate quantities, and uses equipment to measure ingredient weights and volumes and pastry dimensions</li><li>Performs calculations to adjust recipes using baking formulas, and allows for wastage</li><li>Uses understanding of three-dimensional shapes to shape and portion products and check end-product shapes</li><li>Interprets measurement information to set, monitor and adjust process parameters</li><li>Completes production records using mathematical symbols and conventions</li></ul>
Navigate the world of work	<ul style="list-style-type: none"><li>Complies with workplace health and safety and food safety regulatory requirements relevant to a commercial baking operation</li><li>Follows organisational policies and procedures relevant to own work role</li></ul>
Get the work done	<ul style="list-style-type: none"><li>Plans, organises and implements tasks required to achieve production outcomes</li><li>Uses problem-solving skills to analyse product and process faults and decide on appropriate action</li></ul>

## Range of Conditions

*This section specifies different work environments and conditions that may affect performance. Essential operating conditions that may be present (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) are included.*

Non laminated pastry cooking equipment must include:	<ul style="list-style-type: none"><li>equipment, including:<ul style="list-style-type: none"><li>industrial mixer and attachments</li><li>freezer</li></ul></li></ul>
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	<ul style="list-style-type: none"> <li>• industrial cook tops</li> <li>• equipment accessories, including: <ul style="list-style-type: none"> <li>• dough hook</li> <li>• dough beater</li> <li>• cook pots used to cook fillings</li> </ul> </li> <li>• ancillary equipment, including: <ul style="list-style-type: none"> <li>• pie tins or foils used to bake pastry</li> </ul> </li> <li>• tools and utensils, including: <ul style="list-style-type: none"> <li>• cutting boards</li> <li>• food preparation knives.</li> </ul> </li> </ul>
Non laminated pastry filling must include:	<ul style="list-style-type: none"> <li>• sweet thickened or unthickened filling</li> <li>• savoury thickened or unthickened filling.</li> </ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPRBK3002 Produce non laminated pastry products	FDFRB2001A Form and fill pastry products	Redesigned unit that includes content from the previous unit	No equivalent unit
	FDFRB2002A Prepare fillings	Redesigned unit that includes content from the previous unit	No equivalent unit
	FDFRB3001A Produce pastry	Redesigned unit that includes content from the previous unit	No equivalent unit
	FDFRB3007A Bake pastry products	Redesigned unit that includes content from the previous unit	No equivalent unit
	FDFRB3012A Diagnose and respond to product and process faults (pastry, cake and cookies)	Redesigned unit that includes content from the previous unit	No equivalent unit

## Links

Companion Volumes, including Implementation Guides, are available at VETNet -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# Assessment Requirements for FBPRBK3002 Produce non laminated pastry products

## Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package version 1.0

## Performance Evidence

An individual demonstrating competency in this unit must satisfy all of the elements and performance criteria of this unit.

There must be evidence that the individual has produced non laminated pastry products according to a production schedule, including:

- preparing the following three non laminated pastry types from scratch:
  - sweet short pastry
  - savoury short pastry
  - choux pastry
- producing the following five non laminated pastry products:
  - filled sweet non laminated pies or tarts
  - sweet non laminated biscuit product
  - filled savoury non laminated pie or tart product
  - decorated and filled choux pastry
  - sweet non laminated pastry slice
- applying the following four finishes to non laminated pastry products:
  - non laminated product pre-bake finished
  - non laminated product post-bake decorated
  - decorated choux pastry products
  - chocolate finishing
- using the following five fillings:
  - meat filling
  - vegetable filling
  - fruit filling
  - custard filling
  - cream filling



- using the following three mixing methods:
  - crumbing
  - sugar batter method
  - roux
- using the following seven production processes:
  - sheeting or rolling
  - cutting or portioning
  - forming pastry products
  - filling
  - baking
  - blind baking
  - finishing and decorating
- selecting, using and cleaning the pastry cooking equipment listed in the range of conditions, including controlling electrical hazards applicable to cleaning
- documenting the production schedule, including the following six considerations:
  - timings
  - volume requirements
  - product processing requirements
  - finishing requirements for non laminated pastry
  - recipe reformulation to minimise waste
  - bake parameters for non laminated pastry.

Wastage that cannot be reused in production must be less than 5% of the weight of the original production schedule.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- workplace health and safety requirements, including personal protective equipment (PPE), applicable to producing non laminated pastry products
- safe use and cleaning of pastry cooking equipment listed in the range of conditions, including electrical hazards
- regulatory requirements for food safety applicable to producing non laminated pastry products, including temperature control and prevention of cross-contamination in the use of dairy, meat, poultry, fish and vegetable products
- considerations for production scheduling, including:
  - timings
  - volume requirements
  - product processing requirements
  - finishing requirements for non laminated pastry

- recipe reformulation to minimise waste
- bake parameters for non laminated pastry
- storage and serving temperatures of finished non laminated products used, including:
  - hot savoury product
  - cold sweet products
  - products that are reheated for service
- characteristics and storage requirements of ingredients used in non laminated pastry production, including:
  - flour
  - fats/margarines for sweet non laminated pastries
  - fats/margarines for savoury non laminated pastries
  - meats
  - vegetables
  - fruits
  - chocolate
  - thickening starches
- types, functions, settings, safety features, safe use and cleaning of pastry cooking equipment listed in the range of conditions, including electrical hazards and risk controls applicable to cleaning
- preparing and storing fillings, including:
  - cold fillings, including the effect of pregeletanised starches
  - meat fillings
  - vegetable fillings
  - custard fillings
- mixing methods for producing non laminated pastry products, including:
  - crumbing
  - sugar batter method
  - choux pastry method
- processes and techniques for producing non laminated pastry products, including:
  - rolling to match pastry product type thickness requirements and rolling faults
  - processing using manual and mechanical pins, breaks and sheeters
  - ratios of fats to flour in sweet and savoury non laminated pastries
  - development of protein during pastry processing
  - forming pastry into foils or tins
  - depositing, filling and piping fillings
  - finishing and decorating
  - cutting, slicing and portioning
  - baking, including blind baking
  - cause of aeration in non laminated pastry during baking

- causes and corrective action for predictable and sometimes unpredictable non laminated pastry production problems, including:
  - temperature and heat in baking
  - shrinkage of pastry
- techniques for retrieval of scrap, blending with virgin and disposing of waste
- non laminated pastry production terminology.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - a commercial bakery or an environment that accurately represents workplace conditions
- resources, equipment and materials:
  - personal protective equipment
  - equipment specified in the range of conditions
  - industrial oven
  - electronic or analogue scales
  - pastry foils or tins
  - pastry sheeter or break
  - rolling pins
  - pastry cutters
  - ingredients that meet the non laminated pastry product types required in the performance evidence
- specifications:
  - recipes that meet the non laminated pastry product types required in the performance evidence
  - end-product quality specifications to meet the non laminated pastry product types required in the performance evidence
  - food safety code regulatory requirements applicable to producing non laminated pastry products
- timeframes:
  - according to the production schedule.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volumes, including Implementation Guides, are available at VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>



## FBPRBK3003 Produce specialist pastry products

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package version 1.0

### Application

This unit of competency describes the skills and knowledge required to produce specialist pastry products using butter in a commercial baking environment.

This unit applies to individuals who apply a broad range of knowledge and skills with responsibility for their own work. This includes applying and communicating known solutions to predictable problems.

All work must be carried out to comply with workplace procedures, in accordance with State/Territory food safety, and work health and safety, regulations and legislation that apply to the workplace.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

### Pre-requisite Unit

Nil

### Unit Sector

Retail baking (RBK)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare for work	1.1 Confirm product types and volumes to schedule production 1.2 Calculate yield and adjust recipe to meet required production volumes

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	<p>1.3 Confirm work area and work practices meet food safety and workplace health and safety requirements</p> <p>1.4 Select and wear personal protective equipment according to safety requirements</p> <p>1.5 Select specialist pastry equipment and check to confirm readiness for use</p> <p>1.6 Select ingredients and check to confirm quality and quantity</p> <p>1.7 Clean and condition fruits to prepare for use</p> <p>1.8 Prepare tins and trays to meet work requirements</p>
2. Prepare fillings for specialist pastry products	<p>2.1 Select and handle perishables according to food safety requirements</p> <p>2.2 Measure specialist pastry filling ingredient quantities to meet recipe specification and prepare for use</p> <p>2.3 Blend and combine filling ingredients to meet product type</p> <p>2.4 Check fillings to identify faults and rectify</p> <p>2.5 Store fillings according to food safety requirements</p>
3. Mix specialist pastry dough	<p>3.1 Measure specialist pastry ingredient quantities to meet recipe specifications</p> <p>3.2 Load ingredients into mixer in required sequence</p> <p>3.3 Operate and monitor mixer to mix specialist pastry dough</p> <p>3.4 Incorporate butter into sugar for sweet short pastry sugar batter method</p> <p>3.5 Incorporate butter into finished mixed dough for English and French method laminated pastry</p> <p>3.6 Mix extensible pastry dough and rest for processing</p> <p>3.7 Fold and laminate laminated pastry dough with number of folds required for product type</p> <p>3.8 Check specialist pastry dough to identify faults and rectify</p> <p>3.9 Prepare and transfer specialist pastry dough for storage as required in accordance with food safety requirements</p>
4. Form and fill laminated and non laminated pastry	<p>4.1 Roll laminated and non laminated pastry to thickness required for product type</p>

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
products	4.2 Cut, slice and portion specialist pastry as required for product type 4.3 Stretch extensible dough for filling as required for product type 4.4 Add fillings as required for product type 4.5 Load tins and trays to prepare for baking 4.6 Check pre-bake formed and filled specialist pastry products to identify faults and rectify
5. Pre-bake finish non laminated pastry products	5.1 Prepare pre-bake finishing mediums to meet recipe specifications 5.2 Pre-bake finish specialist pastry products to meet end-product specification 5.3 Check pre-bake finished specialist pastry products to identify faults and rectify
6. Bake specialist pastry products	6.1 Set baking temperatures and times to prepare for baking 6.2 Blind bake specialist pastry with blind baking medium as required for product type 6.3 Load oven and monitor baking to achieve bake and stability required for product type 6.4 Unload and transfer specialist pastry products to cool 6.5 Check specialist pastry product bake to identify faults and rectify
7. Post-bake fill and finish specialist pastry products	7.1 Prepare post-bake fillings and finishing mediums to meet recipe specifications 7.2 Finish baked specialist pastry products to meet end-product specifications 7.3 Fill baked specialist pastry products to meet end-product specifications 7.4 Check finished specialist pastry products to identify faults and rectify 7.5 Prepare and transfer specialist pastry products for presentation and storage in accordance with packaging and food safety requirements
8. Complete work	8.1 Clean equipment and work area to meet housekeeping standards 8.2 Dispose of waste according to workplace requirements 8.3 Complete workplace records according to workplace requirements

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"><li>Interprets key information from recipes, ingredient labels, baking equipment operating instructions, and end-product specifications</li></ul>
Writing	<ul style="list-style-type: none"><li>Prepares production schedules and completes production records using required format, language and structure</li></ul>
Numeracy	<ul style="list-style-type: none"><li>Identifies and comprehends ingredient quantities in recipes, dates on ingredient labels, temperature and timer settings and product dimensions</li><li>Estimates approximate quantities, and uses equipment to measure ingredient weights and volumes and pastry dimensions</li><li>Performs calculations to adjust recipes using baking formulas, and allows for wastage</li><li>Uses understanding of three-dimensional shapes to shape and portion products and check end-product shapes</li><li>Interprets measurement information to set, monitor and adjust process parameters</li><li>Completes production records using mathematical symbols and conventions</li></ul>
Navigate the world of work	<ul style="list-style-type: none"><li>Complies with workplace health and safety and food safety regulatory requirements relevant to a commercial baking operation</li><li>Follows organisational policies and procedures relevant to own work role</li></ul>
Get the work done	<ul style="list-style-type: none"><li>Plans, organises and implements tasks required to achieve production outcomes</li><li>Uses problem-solving skills to analyse product and process faults and decide on appropriate action</li></ul>

## Range of Conditions

*This section specifies different work environments and conditions that may affect performance. Essential operating conditions that may be present (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) are included.*

Specialist pastry equipment must include:	<ul style="list-style-type: none"><li>equipment, including:<ul style="list-style-type: none"><li>microwave</li></ul></li></ul>
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	<ul style="list-style-type: none"> <li>• refrigerator</li> <li>• pastry sheeter or pastry break</li> <li>• equipment accessories, including: <ul style="list-style-type: none"> <li>• refrigerator shelving</li> </ul> </li> <li>• ancillary equipment, including: <ul style="list-style-type: none"> <li>• pie tins or foils</li> <li>• hand wash areas</li> <li>• cooling wires used for pastry</li> <li>• trays used for pastry baking</li> </ul> </li> <li>• tools and utensils, including: <ul style="list-style-type: none"> <li>• pastry brushes</li> <li>• measuring jugs</li> <li>• mixing spoons used for cooking</li> <li>• containers used for storing fillings.</li> </ul> </li> </ul>
Specialist pastry filling must include:	<ul style="list-style-type: none"> <li>• blended cold filling</li> <li>• unthickened cold filling</li> <li>• thickened cooked filling</li> <li>• unthickened cooked filling.</li> </ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPRBK3003 Produce specialist pastry products	FDFRB2001A Form and fill pastry products	Redesigned unit that includes content from the previous unit	No equivalent unit
	FDFRB2002A Prepare fillings	Redesigned unit that includes content from the previous unit	No equivalent unit
	FDFRB3001A Produce pastry	Redesigned unit that includes content from the previous unit	No equivalent unit
	FDFRB3007A Bake pastry products	Redesigned unit that includes content from the previous unit	No equivalent unit
	FDFRB3012A Diagnose and	Redesigned unit that includes content from	No equivalent unit

	respond to product and process faults (pastry, cake and cookies)	the previous unit	
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## Links

Companion Volumes, including Implementation Guides, are available at VETNet -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# Assessment Requirements for FBPRBK3003 Produce specialist pastry products

## Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package version 1.0

## Performance Evidence

An individual demonstrating competency in this unit must satisfy all of the elements and performance criteria of this unit.

There must be evidence that the individual has produced specialist pastry products according to a production schedule, including:

- producing the following five types of specialist pastry products:
  - savoury filled laminated pastries
  - laminated pastry slice
  - filled sweet non laminated pastries
  - decorated non laminated pastry biscuits
  - sweet filled extensible dough
- using the following four specialist pastries made from scratch ingredients using butter or oil:
  - laminated puff or flaky pastry
  - sweet short pastry
  - savoury short pastry
  - extensible pastry dough
- using the following four fillings:
  - savoury filling
  - sweet filling
  - custard filling
  - fresh fruit prepared for filling
- applying finishing and decorating using the following two methods:
  - pre-bake glazing and finishing
  - post-bake finishing and decorating
- using the following three butter incorporation methods:

- English method
- French method
- sugar batter or crumbing method
- using a butter-to-flour laminated pastry ratio of minimum 50% half puff
- using the following nine production processes:
  - folding
  - sheeting
  - laminating
  - glazing
  - finishing and decorating
  - filling
  - baking
  - rolling
  - stretching extensible pastry
- selecting, using and cleaning the pastry cooking equipment listed in the range of conditions, including controlling electrical hazards applicable to cleaning
- using the following two types of pastry equipment:
  - pastry sheeter or dough break to laminate
  - rolling pin to roll, finish and transfer pastry
- documenting the production schedule including the following six considerations:
  - timings
  - volume requirements
  - product processing requirements
  - finishing and decorating requirements for specialist pastry products
  - recipe reformulation to minimise waste
  - bake parameters for specialist pastry products.

Wastage that cannot be reused in production must be less than 5% of the weight of the original production schedule.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- workplace health and safety requirements, including personal protective equipment, applicable to producing specialist pastry products
- safe use and cleaning of pastry cooking equipment listed in the range of conditions, including electrical hazards

- regulatory requirements for food safety applicable to producing specialist pastry products, including temperature control and prevention of cross-contamination in the use of dairy, meat, poultry, fish and vegetable products
- considerations for production scheduling, including:
  - timings
  - volume requirements
  - product processing requirements
  - finishing and decorating requirements for specialist pastry products
  - recipe reformulation to minimise waste
  - bake parameters for specialist pastry products
- characteristics and storage requirements of ingredients used in specialist pastry production, including:
  - pastry flour
  - unsalted butter
  - meat fillings
  - fruit fillings
  - glazes
  - fresh cream
- methods and processes for using butter in specialist pastries, including:
  - English method
  - French method
  - the ratio of butter to flour
  - handling and storage of butter
  - consistency of dough to butter for laminating
  - handling and storage of pastry during processing
  - development of protein and gluten during lamination
- processing and finishing of specialist pastry products, including:
  - folding
  - sheeting
  - laminating
  - clarifying butter
  - stretching extensible pastry dough
  - glazing
  - finishing and decorating
  - filling
  - pre-bake glazing
  - post-bake glazing
- identifying and rectifying factors that affect lift, including:
  - number of turns
  - amount of roll in butter

- heat energy in baking specialist pastry
- baking processes of specialist pastry production, including:
  - oven temperatures
  - baking times
- techniques for calculating yields, adjusting recipes and measuring ingredients
- causes and corrective action for predictable and sometimes unpredictable specialist pastry production problems, including:
  - temperature and heat in baking
  - shrinkage of pastry
- techniques for retrieval of scrap, blending with virgin and disposing of waste
- specialist pastry production terminology.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - a commercial bakery or an environment that accurately represents workplace conditions
- resources, equipment and materials:
  - personal protective equipment (PPE)
  - equipment specified in the range of conditions
  - industrial mixer and attachments
  - industrial oven
  - industrial cook tops
  - sink and wash area
  - electronic or analogue scales
  - ingredients that meet the specialist pastry product types required in the performance evidence
- specifications:
  - recipes that meet the specialist pastry product types required in the performance evidence
  - end-product quality specifications to meet the speciality pastry product types required in the performance evidence
  - food safety code regulatory requirements applicable to producing specialist pastry products
- timeframes:
  - according to the production schedule.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volumes, including Implementation Guides, are available at VETNet -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## FBPRBK3004 Produce meringue products

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package version 1.0

### Application

This unit of competency describes the skills and knowledge required to produce meringue products in a commercial baking environment.

This unit applies to individuals who apply a broad range of knowledge and skills with responsibility for their own work. This includes applying and communicating known solutions to predictable problems.

All work must be carried out to comply with workplace procedures, in accordance with State/Territory food safety, and work health and safety, regulations and legislation that apply to the workplace.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

### Pre-requisite Unit

Nil

### Unit Sector

Retail baking (RBK)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare for work	1.1 Confirm product types and volumes to schedule production 1.2 Calculate yield and adjust recipe to meet production volume 1.3 Confirm work area and work practices meet food safety and



Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	<p>workplace health and safety requirements</p> <p>1.4 Select and wear personal protective equipment according to safety requirements</p> <p>1.5 Select meringue equipment and check to confirm readiness for use</p> <p>1.6 Select ingredients and check to confirm quality and quantity</p>
2. Mix meringue batter	<p>2.1 Measure ingredient quantities to meet recipe specifications</p> <p>2.2 Load meringue ingredients into mixer in required sequence</p> <p>2.3 Operate and monitor mixer to mix batter for optimum meringue aeration for product type</p> <p>2.4 Fold in ingredients as required to meet meringue product type</p> <p>2.5 Check meringue to identify batter faults and rectify</p>
3. Process meringue products	<p>3.1 Deposit, spread and pipe meringue batter to prepare gateaux and desserts as required for product type</p> <p>3.2 Fold meringue batter through gateaux, dessert fillings and bases as required for product type</p> <p>3.3 Use sight and feel to assess meringue quality</p> <p>3.4 Check processed meringue to identify faults and rectify</p>
4. Bake meringue products	<p>4.1 Deposit, spread and pipe batters into tins and trays as required for product type</p> <p>4.2 Set baking temperatures and times to suit meringue product type and size</p> <p>4.3 Load oven and monitor baking to achieve bake required for meringue product type</p> <p>4.4 Use sight and feel to assess bake of meringue products</p> <p>4.5 Unload meringue products to cool</p> <p>4.6 Check meringue bake to identify faults and rectify</p>
5. Prepare finishing mediums	<p>5.1 Assemble finishing ingredients and equipment and prepare for use</p> <p>5.2 Measure finishing ingredient quantities to meet recipe specifications</p> <p>5.3 Operate and monitor mixer to prepare creams and icings as required for product type</p>

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	5.4 Prepare chocolate for decorating as required for product type 5.5 Prepare garnishes for decorating as required for product type 5.6 Prepare piping bags to pipe finishing decorations 5.7 Check finishing mediums to identify faults and rectify
6. Finish meringue products	6.1 Finish meringue products to meet product type, and transfer to presentation containers 6.2 Apply creams to finish meringue products as required for product type 6.3 Apply garnishes and decorating finishes to decorate meringue product as required for product type 6.4 Check finished meringue products to identify faults and rectify 6.5 Prepare and transfer products for presentation and storage in accordance with packaging and food safety requirements
7. Complete work	7.1 Clean equipment and work area to meet housekeeping standards 7.2 Dispose of waste according to workplace requirements 7.3 Complete workplace records according to workplace requirements

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"> <li>Interprets key information from recipes, ingredient labels, baking equipment operating instructions and end-product specifications</li> </ul>
Writing	<ul style="list-style-type: none"> <li>Prepares production schedules and completes production records using required format, language and structure</li> </ul>
Numeracy	<ul style="list-style-type: none"> <li>Identifies and comprehends ingredient quantities in recipes, dates on ingredient labels and temperature and timer settings</li> <li>Estimates approximate quantities and uses equipment to measure ingredient weights and volumes</li> <li>Performs calculations to adjust recipes using baking formulas, and</li> </ul>

Skill	Description
	<ul style="list-style-type: none"><li>allows for wastage</li><li>• Uses understanding of three-dimensional shapes to shape products and check end-product shapes</li><li>• Interprets measurement information to set, monitor and adjust process parameters</li><li>• Completes production records using mathematical symbols and conventions</li></ul>
Navigate the world of work	<ul style="list-style-type: none"><li>• Complies with workplace health and safety and food safety regulatory requirements relevant to a commercial baking operation</li><li>• Follows organisational policies and procedures relevant to own work role</li></ul>
Get the work done	<ul style="list-style-type: none"><li>• Plans, organises and implements tasks required to achieve production outcomes</li><li>• Uses problem-solving skills to analyse product and process faults and decide on appropriate action</li></ul>

## Range of Conditions

*This section specifies different work environments and conditions that may affect performance. Essential operating conditions that may be present (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) are included.*

Meringue equipment must include:	<ul style="list-style-type: none"><li>• equipment, including:<ul style="list-style-type: none"><li>• industrial mixer and attachments</li><li>• industrial cook tops</li></ul></li><li>• equipment accessories, including:<ul style="list-style-type: none"><li>• cake whisk attachment</li></ul></li><li>• ancillary equipment, including:<ul style="list-style-type: none"><li>• cake hoops or tins</li><li>• chocolate melting equipment</li><li>• cook pots</li></ul></li><li>• tools and utensils, including:<ul style="list-style-type: none"><li>• pallet knives</li><li>• scrapers</li><li>• cake knives</li><li>• piping bags</li><li>• piping nozzles.</li></ul></li></ul>
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## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPRBK3004 Produce meringue products	FDFRB2003A Produce meringue-based products	Redesigned units with significant changes to elements and performance criteria  AQF level changed to reflect the added variety and complexity of the unit's outcomes	No equivalent unit

## Links

Companion Volumes, including Implementation Guides, are available at VETNet -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# Assessment Requirements for FBPRBK3004 Produce meringue products

## Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package version 1.0

## Performance Evidence

An individual demonstrating competency in this unit must satisfy all of the elements and performance criteria of this unit.

There must be evidence that the individual has produced meringue products according to the production schedule, including:

- producing the following three meringue types:
  - French meringue using cold meringue method
  - Swiss meringue using warm meringue method
  - Italian meringue using hot meringue method
- producing the following four meringue-based products:
  - meringue-based gateaux or torte
  - meringue garnish or figurine
  - meringue-based confection
  - meringue-based dessert
- using the following three creams and icings:
  - chocolate ganache
  - chocolate glaze
  - butter cream
- using the following four decorated finishes:
  - fruit decorated
  - cream decorated
  - chocolate decorated
  - scorched meringue
- selecting, using and cleaning the baking equipment listed in the range of conditions, including controlling electrical hazards applicable to cleaning
- documenting the production schedule, including the following six considerations:

- timings
- volume requirements
- product processing requirements
- meringue product finishing requirements for product type
- recipe reformulation to minimise waste
- bake parameters for meringue product type.

Wastage that cannot be reused in production must be less than 5% of the weight of the original production schedule.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- workplace health and safety requirements, including personal protective equipment (PPE), applicable to producing meringue products
- safe use and cleaning of baking equipment listed in the range of conditions, including electrical hazards
- regulatory requirements for food safety applicable to producing meringue products
- considerations for production scheduling, including:
  - timings
  - volume requirements
  - product processing requirements
  - meringue product finishing requirements for product type
  - recipe reformulation to minimise waste
  - bake parameters for meringue product type
- characteristics and processes of meringue types, including:
  - French meringue using cold meringue method
  - Swiss meringue using warm meringue method
  - Italian meringue using hot meringue method
- types of meringue-based products, including:
  - meringue-based gateaux and tortes
  - meringue garnish
  - meringue-based confection
  - meringue figurine
  - meringue-based dessert
- using butter creams, ganache and glazes, including:
  - chocolate ganache
  - chocolate glaze
  - butter cream

- types, functions and characteristics of ingredients used in meringue products production, including:
  - reaction of fat against protein in meringue
  - eggs
  - sugar
- processes for producing meringue products, including:
  - mixing physically aerated
  - piping meringue
  - baking
  - whisking
  - boiling
  - scorching
  - drying
- requirements for finishing, including:
  - decorating mediums to suit finishing
  - preparing ganache and glazes
  - melting chocolate
  - using meringue for garnishes
- purpose and functions of production settings, including:
  - oven temperatures for meringue batter type and volume
  - baking times for meringue batter type and volume
- techniques for testing bake of meringue by feel and sight
- required characteristics of meringue products, including:
  - softness
  - firmness
  - sweetness
  - stability
- causes and corrective action for predictable and sometimes unpredictable meringue production problems, including:
  - machinery failure
  - environmental factors, including heat, humidity and cold
  - poor quality ingredients
- meringue product terminology.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - a commercial bakery or an environment that accurately represents workplace conditions
- resources, equipment and materials:

- personal protective equipment
- equipment specified in the range of conditions
- industrial oven
- trays
- ingredients that meet the meringue product types required in the performance evidence
- specifications:
  - recipes that meet the meringue product types required in the performance evidence
  - end-product quality specifications to meet the meringue product types required in the performance evidence
  - food safety code regulatory requirements applicable to producing meringue products
- timeframes:
  - according to work requirements.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volumes, including Implementation Guides, are available at VETNet -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>



## FBPRBK3005 Produce basic bread products

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package version 1.0

### Application

This unit of competency describes the skills and knowledge required to produce basic bread products in a commercial baking environment.

This unit applies to individuals who apply a broad range of knowledge and skills with responsibility for their own work. This includes applying and communicating known solutions to predictable problems.

All work must be carried out to comply with workplace procedures, in accordance with State/Territory food safety, and work health and safety, regulations and legislation that apply to the workplace.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

### Pre-requisite Unit

Nil

### Unit Sector

Retail baking (RBK)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare for work	1.1 Confirm product types and volumes to schedule production 1.2 Calculate yield and adjust recipe to meet required production volumes

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	<p>1.3 Confirm work area and work practices meet food safety and workplace health and safety requirements</p> <p>1.4 Select and wear personal protective equipment according to safety requirements</p> <p>1.5 Select basic bread baking equipment and check to confirm readiness for use</p> <p>1.6 Select ingredients and check to confirm quality and quantity</p>
2. Mix basic bread dough	<p>2.1 Measure ingredient quantities to meet recipe specifications</p> <p>2.2 Load ingredients into the mixer in the required ingredient placement</p> <p>2.3 Operate and monitor mixer to achieve basic bread dough development for product type</p> <p>2.4 Check mixed basic dough to identify faults and rectify</p>
3. Process basic bread dough	<p>3.1 Divide, scale, mould and intermediate prove basic dough to meet required end-product shape and baked weight</p> <p>3.2 Final mould basic dough and place on baking surfaces and pre-prove score for product type before final prove</p> <p>3.3 Retard basic dough as required for product type</p> <p>3.4 Final prove basic dough as required for product type</p> <p>3.5 Check processed basic dough to identify faults and rectify</p>
4. Pre-bake finish basic bread products	<p>4.1 Prepare finishing ingredients to meet recipe specifications</p> <p>4.2 Pre-bake finish basic bread products to meet end-product specifications</p> <p>4.3 Check pre-bake finished basic bread products to identify faults and rectify</p>
5. Bake basic bread products	<p>5.1 Set baking temperatures and times to prepare for baking</p> <p>5.2 Visually check basic dough size to confirm readiness for baking, and post-prove score for product type prior to baking</p> <p>5.3 Load oven and steam as required for product type</p> <p>5.4 Monitor baking to achieve baked colour and stability required for basic bread product type</p> <p>5.5 Unload and de-pan baked basic bread products to cool</p>

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	5.6 Check basic bread product bake to identify faults and rectify 5.7 Prepare and transfer products for presentation and storage in accordance with packaging and food safety requirements
6. Complete work	6.1 Clean equipment and work area to meet housekeeping standards 6.2 Dispose of waste according to workplace requirements 6.3 Complete workplace records according to workplace requirements

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"> <li>Interprets key information from recipes, ingredient labels, baking equipment operating instructions and end-product specifications</li> </ul>
Writing	<ul style="list-style-type: none"> <li>Prepares production schedules and completes production records using required format, language and structure</li> </ul>
Numeracy	<ul style="list-style-type: none"> <li>Identifies and comprehends ingredient quantities in recipes, dates on ingredient labels, and temperature, humidity and timer settings</li> <li>Estimates approximate quantities, and uses equipment to measure ingredient weights and volumes, and water and dough temperatures</li> <li>Divides dough into equal portions by estimated weight</li> <li>Performs calculations to adjust recipes using baking formulas, and allows for wastage</li> <li>Uses understanding of three-dimensional shapes to mould dough shapes and check end-product shapes</li> <li>Interprets measurement information to set, monitor and adjust process parameters</li> <li>Completes production records using mathematical symbols and conventions</li> </ul>
Navigate the world of work	<ul style="list-style-type: none"> <li>Complies with workplace health and safety and food safety regulatory requirements relevant to a commercial baking environment</li> <li>Follows organisational policies and procedures relevant to own</li> </ul>

Skill	Description
	work role
Get the work done	<ul style="list-style-type: none"> <li>Plans, organises and implements tasks required to achieve production outcomes</li> <li>Uses problem-solving skills to analyse product and process faults and decide on appropriate action</li> </ul>

## Range of Conditions

*This section specifies different work environments and conditions that may affect performance. Essential operating conditions that may be present (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) are included.*

Basic bread baking equipment must include:	<ul style="list-style-type: none"> <li>equipment, including: <ul style="list-style-type: none"> <li>industrial oven</li> <li>industrial mixer and attachments</li> <li>industrial dough moulding equipment</li> </ul> </li> <li>equipment accessories, including: <ul style="list-style-type: none"> <li>industrial dough moulding equipment accessories</li> </ul> </li> <li>ancillary equipment, including: <ul style="list-style-type: none"> <li>dry ingredients storage containers</li> <li>industrial baking tins and lids</li> <li>bread baking trays</li> <li>ingredient storage bins</li> </ul> </li> <li>tools and utensils, including: <ul style="list-style-type: none"> <li>dough knives</li> <li>dough scrapers</li> <li>water spray bottles</li> <li>scoring knives</li> <li>flour sieves.</li> </ul> </li> </ul>
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## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPRBK3005 Produce basic	FDFRB3002A Produce bread	Redesigned unit that includes content from	No equivalent unit

bread products	dough	previous unit	
	FDFRB3005A Bake bread	Redesigned unit that includes content from previous unit	No equivalent unit
	FDFRB3009A Retard dough	Redesigned unit that includes content from previous unit	No equivalent unit
	FDFRB3010A Process dough	Redesigned unit that includes content from previous unit	No equivalent unit
	FDFRB3011A Diagnose and respond to product and process faults (bread)	Redesigned unit that includes content from previous unit	No equivalent unit

## Links

Companion Volumes, including Implementation Guides, are available at VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# Assessment Requirements for FBPRBK3005 Produce basic bread products

## Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package version 1.0

## Performance Evidence

An individual demonstrating competency in this unit must satisfy all of the elements and performance criteria of this unit.

There must be evidence that the individual has produced basic bread products according to a production schedule, including:

- mixing and using the following three dough types:
  - premix dough
  - instant dough/no time dough/scratch mix dough
  - chemical leavened dough
- producing the following two basic bread types:
  - white bread
  - brown bread
- producing the following six bread product varieties and shapes:
  - condensed/sandwich loaves
  - high top loaves, either married or single
  - soft/enriched bread roll variety
  - crusty/lean bread roll variety
  - crusty/lean loaf – plaited, Vienna, French stick or cob
  - chemical leavened dough
- retarding one of the following three product types produced:
  - soft/enriched bread roll variety
  - crusty/lean bread roll variety
  - crusty/lean loaf – plaited, Vienna, French stick or cob
- selecting and using tins and trays appropriate for dough piece scale weight, volume and size
- using the following eight moulding techniques:

- rounding
- batons
- knots
- 4 piecing
- degassing
- curling/rolling
- sealing
- cutting/portioning
- using the following four bread dough finishing techniques:
  - pre-prove scoring
  - post-prove scoring
  - seeding
  - dusting
- using the following five baking techniques:
  - steaming
  - testing bake by sight and baked colour
  - de-panning basic breads
  - cooling basic bread products on cooling wires
  - using lids to condense loaves
- selecting, using and cleaning the bread baking equipment listed in the range of conditions, including controlling electrical hazards applicable to cleaning
- documenting the production schedule, including the following six considerations:
  - timings
  - volume requirements
  - product processing requirements
  - recipe reformulation to minimise waste
  - finishing parameters for basic bread products
  - bake parameters for basic bread products

Wastage that cannot be reused in production must be less than 5% of the weight of the original production schedule.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- workplace health and safety requirements, including personal protective equipment, applicable to producing basic bread products
- safe use and cleaning of bread baking equipment listed in the range of conditions, including electrical hazards

- regulatory requirements applicable to producing basic bread products
- techniques and considerations for production scheduling, including:
  - timings
  - volume requirements
  - product processing requirements
  - recipe reformulation to minimise waste
  - finishing parameters for basic bread products
  - bake parameters for basic bread products
- functions and characteristics of ingredients used in basic bread production, including:
  - premixes
  - baker's or strong flour
  - whole meal flour
  - baking powder
  - salt
  - sugar
  - yeast, including principles of fermentation
  - water
  - shortening, fats and oils
  - bread improvers
- mixing processes and gluten development for basic bread doughs, including:
  - premix doughs
  - scratch/no time/instant doughs
  - chemical leavened doughs
- sequencing of the rapid or no time basic bread production processes
- purpose and techniques for pre-bake finishing basic breads
- characteristics and techniques for moulding basic bread doughs
- impacts of factors on production of different retarded basic bread products, including:
  - finished dough temperature (FDT)
  - dough size
  - dough shape
  - yeast activity
  - processing retard in cool phase
  - processing retard in warm phase
- techniques for calculating yields, adjusting recipes, converting units of measurement and measuring ingredients
- techniques for selecting tins and trays appropriate for dough piece scale weight, volume and size
- required baked characteristics of basic bread products, including:
  - volume
  - grain



- texture
- crumb colour
- crust formation
- crust colour
- the effects of common bread faults in basic bread production, including:
  - lack of salt
  - too much salt
  - no improver
  - too much improver
  - no yeast
  - too much yeast
  - weak flour instead of strong flour
- techniques for disposing of waste from bread production
- basic bread production terminology.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - a commercial bakery or an environment that accurately represents workplace conditions
- resources, equipment and materials:
  - personal protective equipment
  - equipment specified in the range of conditions
  - bread slicer
  - ingredients that meet the basic bread product types required in the performance evidence
- specifications:
  - recipes that meet the basic bread product types required in the performance evidence
  - end-product quality specifications to meet the basic bread product types required in the performance evidence
  - food safety code regulatory requirements applicable to producing basic bread products
- timeframes:
  - according to the production schedule.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volumes, including Implementation Guides, are available at VETNet -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## FBPRBK3006 Produce savoury bread products

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package version 1.0

### Application

This unit of competency describes the skills and knowledge required to produce savoury bread products in a commercial baking environment.

This unit applies to individuals who apply a broad range of knowledge and skills with responsibility for their own work. This includes applying and communicating known solutions to predictable problems.

All work must be carried out to comply with workplace procedures, in accordance with State/Territory food safety, and work health and safety, regulations and legislation that apply to the workplace.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

### Pre-requisite Unit

Nil

### Unit Sector

Retail baking (RBK)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare for work	1.1 Confirm product types and volumes to schedule production 1.2 Calculate yield and adjust recipe to meet special dietary

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	<p>requirements and required production volumes</p> <p>1.3 Confirm work area and work practices meet food safety and workplace health and safety requirements</p> <p>1.4 Select and wear personal protective equipment according to safety requirements</p> <p>1.5 Select savoury bread baking equipment and check to confirm readiness for use</p> <p>1.6 Select ingredients and check to confirm quality and quantity</p>
2. Prepare savoury fillings	<p>2.1 Select and handle perishables according to food safety requirements</p> <p>2.2 Measure ingredient quantities to meet recipe specifications and prepare for use</p> <p>2.3 Blend and combine ingredients to meet savoury product type</p> <p>2.4 Check savoury filling to identify faults and rectify</p> <p>2.5 Store savoury fillings according to food safety requirements</p>
3. Mix savoury bread dough	<p>3.1 Measure ingredient quantities to meet recipe specifications</p> <p>3.2 Load ingredients into mixer in required ingredient placement</p> <p>3.3 Operate and monitor mixer to achieve savoury dough development for product type</p> <p>3.4 Add savoury fillings to dough during mixing to meet product type</p> <p>3.5 Check savoury dough to identify faults and rectify</p>
4. Process savoury bread dough	<p>4.1 Divide, scale, mould and intermediate prove dough to meet required end-product shape and baked weight</p> <p>4.2 Final mould and shape savoury dough in preparation for applying fillings and toppings</p> <p>4.3 Retard savoury dough as required for product type</p> <p>4.4 Final prove savoury dough as required for product type</p> <p>4.5 Check processed savoury dough to identify faults and rectify</p>
5. Apply toppings and fillings to savoury bread dough	<p>5.1 Select savoury ingredients from storage to meet recipe specifications</p> <p>5.2 Prepare and apply sauces to savoury doughs according to product type</p>

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	5.3 Fill and top savoury doughs as required according to product type 5.4 Identify savoury ingredients for reuse, and store according to food safety requirements 5.5 Check topped and filled savoury bread doughs to identify faults and rectify
6. Bake savoury bread products	6.1 Set baking temperatures and times to prepare for baking 6.2 Visually check dough size to confirm readiness for baking 6.3 Monitor baking to achieve baked colour and stability required for savoury bread product type 6.4 Unload savoury products to cool according to food safety requirements 6.5 Check savoury bread bake to identify faults and rectify 6.6 Prepare and transfer baked savoury products for presentation and storage according to packaging and food safety requirements
7. Steam savoury bread products	7.1 Set steaming settings to prepare for steaming 7.2 Visually check dough size to confirm readiness for steaming 7.3 Load steaming equipment and monitor steaming to achieve steam levels for product type 7.4 Unload steamed products to cool according to food safety requirements 7.5 Check steamed savoury bread product to identify faults and rectify 7.6 Prepare and transfer steamed products for presentation and storage according to packaging and food safety requirements
8. Complete work	8.1 Clean equipment and work area to meet housekeeping standards 8.2 Dispose of waste according to workplace requirements 8.3 Complete workplace records according to workplace requirements

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"> <li>Interprets key information from recipes, ingredient labels, baking equipment operating instructions and end-product specifications</li> </ul>
Writing	<ul style="list-style-type: none"> <li>Prepares production schedules and completes production records using required format, language and structure</li> </ul>
Numeracy	<ul style="list-style-type: none"> <li>Identifies and comprehends ingredient quantities in recipes, dates on ingredient labels, and temperature, humidity and timer settings</li> <li>Estimates approximate quantities, and uses equipment to measure ingredient weights and volumes, and water and dough temperatures</li> <li>Divides dough into equal portions by estimated and scaled weights</li> <li>Performs calculations to adjust recipes using baking formulas, and allows for wastage</li> <li>Uses understanding of three-dimensional shapes to mould dough shapes and check end-product shapes</li> <li>Interprets safe food condition temperature range requirements for perishables</li> <li>Interprets measurement information to set, monitor and adjust process parameters</li> <li>Completes production records using mathematical symbols and conventions</li> </ul>
Navigate the world of work	<ul style="list-style-type: none"> <li>Complies with workplace health and safety and food safety regulatory requirements relevant to a commercial baking operation</li> <li>Follows organisational policies and procedures relevant to own work role</li> </ul>
Get the work done	<ul style="list-style-type: none"> <li>Plans, organises and implements tasks required to achieve production outcomes</li> <li>Uses problem-solving skills to analyse product and process faults and decide on appropriate action</li> </ul>

## Range of Conditions

*This section specifies different work environments and conditions that may affect performance. Essential operating conditions that may be present (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) are included.*

Savoury bread baking equipment must include:	<ul style="list-style-type: none"> <li>equipment, including:             <ul style="list-style-type: none"> <li>industrial oven</li> <li>industrial mixer and attachments</li> <li>industrial cook tops</li> <li>cool room or refrigeration</li> </ul> </li> </ul>
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	<ul style="list-style-type: none"> <li>• dish washing sinks</li> <li>• equipment accessories, including: <ul style="list-style-type: none"> <li>• cool room or refrigerator shelving</li> <li>• dish washing sink taps and attachments</li> </ul> </li> <li>• ancillary equipment, including: <ul style="list-style-type: none"> <li>• pizza trays</li> <li>• cook pots used for preparing savoury fillings</li> <li>• storage containers used for storing savoury fillings</li> <li>• containers used for storing savoury sauces</li> <li>• baking trays and pans used for baking savoury products</li> <li>• cooling wires used for cooling savoury products</li> <li>• cutting boards used for savoury fillings</li> <li>• equipment used to steam savoury bread</li> </ul> </li> <li>• tools and utensils, including: <ul style="list-style-type: none"> <li>• scrapers</li> <li>• ladles and cooking spoons</li> <li>• serrated bread knives</li> <li>• food preparation knives.</li> </ul> </li> </ul>
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## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPRBK3006 Produce savoury bread products	FDFRB3002A Produce bread dough	Redesigned unit that includes content from previous unit	No equivalent unit
	FDFRB3005A Bake bread	Redesigned unit that includes content from previous unit	No equivalent unit
	FDFRB3009A Retard dough	Redesigned unit that includes content from previous unit	No equivalent unit
	FDFRB3010A Process dough	Redesigned unit that includes content from previous unit	No equivalent unit
	FDFRB3011A Diagnose and	Redesigned unit that includes content from	No equivalent unit

	respond to product and process faults (bread)	previous unit	
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## Links

Companion Volumes, including Implementation Guides, are available at VETNet -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>



# Assessment Requirements for FBPRBK3006 Produce savoury bread products

## Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package version 1.0

## Performance Evidence

An individual demonstrating competency in this unit must satisfy all of the elements and performance criteria of this unit.

There must be evidence that the individual has produced savoury bread products according to a production schedule, including:

- producing the following six types of savoury bread products:
  - savoury flat bread
  - savoury bread loaf
  - savoury bread roll
  - savoury filled bread
  - savoury steamed bread
  - savoury unleavened product
- processing one of the above savoury bread products as a retarded product
- meeting one of the following two ingredient-specific special dietary requirements in one of the above savoury bread products:
  - vegetarian
  - vegan
- meeting one of the following four religious special dietary needs in one of the above savoury bread products:
  - Buddhism
  - Hinduism
  - Islam
  - Judaism
- mixing and using the following three types of dough mixes:
  - instant/scratch mix/no time dough
  - bulk ferment dough
  - unleavened dough
- meeting the following two food safety requirements:

- identifying temperature control points of savoury ingredients used
- handling and storing savoury ingredients and products
- preparing and adding the following five types of filling and topping ingredients:
  - dairy products
  - meat products
  - vegetables
  - herbs
  - sauce with a savoury base
- adding the savoury fillings and toppings to savoury bread doughs using the following three methods:
  - incorporating into dough during mixing
  - incorporating on top of savoury dough prior to baking
  - using the savoury filling as a filling inside savoury bread
- selecting, using and cleaning the savoury bread baking equipment listed in the range of conditions, including controlling electrical hazards applicable to cleaning
- selecting and using tins and trays appropriate for dough piece scale, weight, volume and size
- documenting a production schedule, including the following seven considerations:
  - timings
  - volume requirements
  - savoury filling requirements for product types
  - bake parameters for savoury products
  - product processing requirements
  - storage requirements for savoury products
  - recipe reformulation to minimise waste.

Wastage that cannot be reused in production must be less than 5% of the weight of the original production schedule.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- workplace health and safety requirements, including personal protective equipment, applicable to producing savoury bread
- safe use and cleaning of bread baking equipment listed in the range of conditions, including electrical hazards
- regulatory requirements for food safety applicable to producing savoury bread products, including temperature control and prevention of cross-contamination in the use of dairy, meat, poultry, fish and vegetable products

- nature of special dietary requirements suitable for savoury bread products
- nature of religious special dietary needs as they relate to savoury products, including:
  - Buddhism
  - Hinduism
  - Islam
  - Judaism
- nature of ingredient-specific special dietary needs as they relate to savoury products, including:
  - vegetarian
  - vegan
- techniques and considerations for production scheduling, including:
  - timings
  - volume requirements
  - savoury filling requirements for product types
  - bake parameters for savoury products
  - product processing requirements
  - storage requirements for savoury products
  - recipe reformulation to minimise waste
- safe handling, shelf life and storage requirements of ingredients used in savoury bread production, including:
  - savoury sauces
  - meat ingredients
  - dairy ingredients
  - vegetable ingredients
  - herb ingredients
- effects of seasonal changes on dairy products
- storage requirements for:
  - cooked savoury fillings
  - cold savoury fillings
- principles of the production processes, including:
  - preparing fillings
  - mixing, including incorporating savoury ingredients into dough
  - baking toppings
  - rolling dough
  - steaming dough
  - packaging savoury bread
- purpose and principles of the bulk fermentation process
- techniques for retarding savoury bread products, including:
  - retarding savoury bread in the cool phase
  - recovery of retarded savoury bread in the warm phase

- impacts on production of the following:
  - salted ingredients
  - stability of breads using savoury products
- required characteristics of savoury bread products, including:
  - visual appeal
  - flavour
- techniques for disposing of waste from bread production
- savoury bread production terminology.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - a commercial bakery or an environment that accurately represents workplace conditions
- resources, equipment and materials:
  - personal protective equipment
  - equipment as specified in the range of conditions
  - rolling pins
  - ingredients that meet the savoury bread product types required in the performance evidence
- specifications:
  - recipes that meet the savoury bread product types required in the performance evidence
  - end-product quality specifications that meet the savoury bread product types required in the performance evidence
  - food safety code regulatory requirements applicable to producing savoury bread products
- timeframes:
  - according to the production schedule.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volumes, including Implementation Guides, are available at VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## FBPRBK3007 Produce specialty flour bread products

### Modification History

Release	Comments
Release 2	This version released with FBP Food, Beverage and Pharmaceutical Training Package version 2.0
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package version 1.0

### Application

This unit of competency describes the skills and knowledge required to produce specialty flour bread products in a commercial baking environment. Specialty flour bread products include organic flour breads, non-wheat flour breads, gluten-free breads, rye breads, whole grain flour breads and wholemeal breads.

This unit applies to individuals who apply a broad range of knowledge and skills with responsibility for their own work. This includes applying and communicating known solutions to predictable problems.

All work must be carried out to comply with workplace procedures, in accordance with State/Territory food safety, and work health and safety, regulations and legislation that apply to the workplace.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

### Pre-requisite Unit

Nil

### Unit Sector

Retail baking (RBK)

### Elements and Performance Criteria

Elements	Performance Criteria
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<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare for work	1.1 Confirm product types and volumes to schedule production 1.2 Calculate yield and adjust recipe to meet special dietary requirements and production volumes 1.3 Confirm work area and work practices meet food safety and workplace health and safety requirements 1.4 Select and wear personal protective equipment according to safety requirements 1.5 Select specialty flour bread baking equipment and check to confirm readiness for use 1.6 Select ingredients and check to confirm quality and quantity
2. Mix specialty flour bread dough	2.1 Measure ingredient quantities to meet recipe specification 2.2 Load ingredients into mixer in required ingredient placement 2.3 Operate and monitor mixer to achieve speciality flour bread dough development for product type 2.4 Check specialty flour dough to identify faults and rectify
3. Process specialty flour bread dough	3.1 Divide, scale, mould and rest dough to meet required end-product specialty flour product shapes and baked weights 3.2 Final mould dough and place on baking surfaces for final prove as required 3.3 Final prove specialty flour dough as required for product type 3.4 Check processed specialty flour dough to identify faults and rectify
4. Pre-bake finish specialty flour bread products	4.1 Prepare pre-bake finishing mediums to recipe specifications 4.2 Pre-bake finish specialty flour products to meet end-product specifications 4.3 Check pre-bake finished specialty flour products to identify faults and rectify
5. Bake specialty flour bread products	5.1 Set baking temperatures and times to prepare for baking 5.2 Visually check dough size to confirm specialty flour product readiness for baking 5.3 Load oven and steam as required for specialty flour product type 5.4 Monitor baking to achieve baked colour and stability required for speciality flour bread product type

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	5.5 Unload and de-pan baked specialty flour products to cool 5.6 Check specialty flour bread product to identify faults and rectify 5.7 Prepare and transfer products for presentation and storage according to packaging and food safety requirements
6. Complete work	6.1 Clean equipment and work area to meet housekeeping standards 6.2 Dispose of waste according to workplace requirements 6.3 Complete workplace records according to workplace requirements

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"> <li>Interprets key information from recipes, ingredient labels, baking equipment operating instructions and end-product specifications</li> </ul>
Writing	<ul style="list-style-type: none"> <li>Prepares production schedules and completes production records using required format, language and structure</li> </ul>
Numeracy	<ul style="list-style-type: none"> <li>Identifies and comprehends ingredient quantities in recipes, dates on ingredient labels, and temperature, humidity and timer settings</li> <li>Estimates approximate quantities, and uses equipment to measure ingredient weights and volumes, and water and dough temperatures</li> <li>Divides dough into equal portions by estimated weight</li> <li>Performs calculations to adjust recipes using baking formulas, and allows for wastage</li> <li>Uses understanding of three-dimensional shapes to mould dough shapes and check end-product shapes</li> <li>Interprets measurement information to set, monitor and adjust process parameters</li> <li>Completes production records using mathematical symbols and conventions</li> </ul>
Navigate the world of work	<ul style="list-style-type: none"> <li>Complies with workplace health and safety and food safety regulatory requirements relevant to a commercial baking operation</li> <li>Follows organisational policies and procedures relevant to own</li> </ul>

Skill	Description
	work role
Get the work done	<ul style="list-style-type: none"> <li>Plans, organises and implements tasks required to achieve production outcomes</li> <li>Uses problem-solving skills to analyse product and process faults and decide on appropriate action</li> </ul>

## Range of Conditions

*This section specifies different work environments and conditions that may affect performance. Essential operating conditions that may be present (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) are included.*

Specialty flour bread baking equipment must include:	<ul style="list-style-type: none"> <li>equipment, including: <ul style="list-style-type: none"> <li>industrial oven</li> <li>industrial mixer and attachments</li> <li>dish washing area</li> </ul> </li> <li>equipment accessories, including: <ul style="list-style-type: none"> <li>dish washing area taps and accessories</li> </ul> </li> <li>ancillary equipment, including: <ul style="list-style-type: none"> <li>specialty flour storage containers</li> <li>grain soaking containers</li> <li>dough storage containers</li> </ul> </li> <li>tools and utensils, including: <ul style="list-style-type: none"> <li>dusting sieves</li> <li>scoring knives</li> <li>spray bottles</li> <li>thermometers.</li> </ul> </li> </ul>
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## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPRBK3007 Produce specialty flour bread products	FBPRBK3007 Produce specialty flour bread products Release 1	Corrected error in Performance Evidence	Equivalent unit



Release 2			
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## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## Assessment Requirements for FBPRBK3007 Produce specialty flour bread products

### Modification History

Release	Comments
Release 2	This version released with FBP Food, Beverage and Pharmaceutical Training Package version 2.0
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package version 1.0

### Performance Evidence

An individual demonstrating competency in this unit must satisfy all of the elements and performance criteria of this unit.

There must be evidence that the individual has produced specialty flour bread products according to a production schedule, including:

- producing the following six types of specialty flour bread products:
  - organic breads
  - non-wheat breads
  - gluten-free breads
  - rye breads
  - whole grain breads
  - wholemeal breads
- mixing and using the following three doughs:
  - scratch mix/no time/instant dough
  - bulk ferment sour doughs
  - all in mix
- using the following five product shapes:
  - baton/Vienna
  - boule/cob
  - loaf
  - rolls
  - specialty shape
- using one of the following five sours for rye bread:
  - lactic sour
  - acetic sour

- natural sour
- powdered sour
- liquor sour
- incorporating pre-soaked grain into grain bread
- finishing bread using the following four finishing methods:
  - post-prove scoring
  - seeding
  - dusting
  - steaming
- selecting, using and cleaning the bread baking equipment listed in the range of conditions, including controlling electrical hazards applicable to cleaning
- selecting and using bread shaping equipment, tins and trays appropriate for dough piece scale, weight, volume and size
- documenting the production schedule, including the following six considerations:
  - timings
  - volume requirements
  - product processing requirements
  - recipe reformulation to minimise waste
  - finishing requirements for specialty flour products
  - bake parameters for specialty flour products.

Wastage that cannot be reused in production must be less than 5% of the weight of the original production schedule.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- workplace health and safety requirements, including personal protective equipment, applicable to producing specialty flour bread products
- safe use and cleaning of bread baking equipment listed in the range of conditions, including electrical hazards
- regulatory requirements for food applicable to producing specialty flour bread products
- considerations for production scheduling, including:
  - timings
  - volume requirements
  - product processing requirements
  - recipe reformulation to minimise waste
  - finishing requirements for specialty flour products
  - bake parameters for specialty flour products

- types, characteristics and storage requirements of ingredients used in specialty flour bread production, including:
  - organic flour
  - non-wheat flour
  - rye flour
  - gluten-free flour
  - grains
  - wholemeal flour
- hydration rates for grain breads and wholemeal breads, and purpose and techniques for the soaking of grains
- benefits of organics in flours
- nature of special dietary requirements and gluten intolerance as they relate to dietary-suitable flours and specialty flour bread products
- reformulation of grain and fibre breads
- mixing processes and mixing outcomes for:
  - scratch mix/no time/instant dough
  - bulk ferment sour doughs
  - all in mix
  - specialty flour doughs
  - rye breads
- principles of processing and hearth baking specialty flour breads
- techniques for producing rye breads, including:
  - rye flour varieties for different rye breads
  - using lactic, acetic and natural sour doughs for rye breads
  - using powder and liquor sours for rye breads
  - using baskets for proving when baking rye breads
- processing and baking techniques required for using specialty flours, including:
  - rye breads
  - organic breads
  - non-wheat flour breads
  - gluten-free breads
  - wholemeal flour breads
- impacts on production, including:
  - soaking of grains
  - processing gluten-free flour
- techniques for selecting tins and trays appropriate for dough piece scale weight, volume and size
- causes and corrective action for predictable and sometimes unpredictable specialty flour bread production problems, including:
  - machinery failure
  - environmental factors, including heat, humidity and cold

- poor quality ingredients
- techniques for disposing of waste from bread production
- specialty flour bread production terminology.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - a commercial bakery or an environment that accurately represents workplace conditions
- resources, equipment and materials:
  - personal protective equipment
  - equipment as specified in the range of conditions
  - tins
  - trays
  - ingredients that meet the specialty flour bread product types required in the performance evidence
- specifications:
  - recipes that meet the specialty flour bread product types required in the performance evidence
  - end-product quality specifications to meet the specialty flour bread product types required in the performance evidence
  - food safety code regulatory requirements applicable to producing specialty flour bread products
- timeframes:
  - according to the production schedule.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## FBPRBK3008 Produce sponge cake products

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package version 1.0

### Application

This unit of competency describes the skills and knowledge required to produce and finish sponge cake products in a commercial baking environment.

This unit applies to individuals who apply a broad range of knowledge and skills with responsibility for their own work. This includes applying and communicating known solutions to predictable problems.

All work must be carried out to comply with workplace procedures, in accordance with State/Territory food safety, and work health and safety, regulations and legislation that apply to the workplace.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

### Pre-requisite Unit

Nil

### Unit Sector

Retail baking (RBK)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare for work	1.1 Confirm product types and volumes to schedule production 1.2 Calculate yield and adjust recipe to meet production volumes

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	1.3 Confirm work area and work practices meet food safety and workplace health and safety requirements 1.4 Select and wear personal protective equipment according to safety requirements 1.5 Select sponge cake baking equipment and check to confirm readiness for use 1.6 Select ingredients and check to confirm quality and quantity 1.7 Prepare tins, trays and pans to match sponge cake product type
2. Mix sponge cake batter	2.1 Measure ingredient quantities to meet recipe specifications 2.2 Load ingredients into mixer in required ingredient sequence 2.3 Operate and monitor mixer to mix sponge cake batter as required for product type 2.4 Fold in ingredients as required to meet product type 2.5 Check sponge cake batter to identify faults and rectify
3. Bake sponge cake products	3.1 Deposit, spread and pipe sponge cake batters into tins and trays to prepare for baking 3.2 Set baking temperatures and times to meet sponge cake product type and size 3.3 Load oven and monitor baking to achieve baked colour and quality for product type 3.4 Use sight and feel to assess bake of sponge cake products 3.5 Unload and de-pan baked sponge products to cool 3.6 Check sponge cake product bake to identify faults and rectify
4. Prepare finishing mediums	4.1 Assemble finishing ingredients and equipment and prepare for use 4.2 Measure finishing ingredient quantities to meet recipe specifications 4.3 Operate and monitor mixer to prepare creams and icings as required for product type 4.4 Melt and prepare chocolate for decorating as required for product type 4.5 Prepare jams for decorating and filling as required for product type 4.6 Prepare garnishes for decorating as required for product type

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	4.7 Prepare paper piping bags to decorate with chocolate 4.8 Prepare piping bags to pipe finishing decorations 4.9 Check finishing mediums to identify faults and rectify
5. Finish sponge cake products	5.1 Cut sponge cake product into portions as required for product type 5.2 Split and fill sponge products as required for product type, and transfer to cake boards as required for product type 5.3 Apply creams and icings to mask and finish sponge cake products as required for product type 5.4 Apply garnishes and decorations to decorate sponge products as required for product type 5.5 Apply simple written inscriptions to decorate sponge products as required for product type 5.6 Check sponge cake product finishing to identify faults and rectify 5.7 Prepare and transfer products for presentation and storage according to packaging and food safety requirements
6. Complete work	6.1 Clean equipment and work area to meet housekeeping standards 6.2 Dispose of waste according to workplace requirements 6.3 Complete workplace records according to workplace requirements

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"> <li>Interprets key information from recipes, ingredient labels, baking equipment operating instructions and end-product specifications</li> </ul>
Writing	<ul style="list-style-type: none"> <li>Prepares production schedules and completes production records using required format, language and structure</li> </ul>
Numeracy	<ul style="list-style-type: none"> <li>Identifies and comprehends ingredient quantities in recipes, dates on ingredient labels, and temperature and timer settings</li> <li>Estimates approximate quantities, and uses equipment to measure</li> </ul>



Skill	Description
	<ul style="list-style-type: none"> <li>ingredient weights and volumes</li> <li>Performs calculations to adjust recipes using baking formulas, and allows for wastage</li> <li>Uses understanding of three-dimensional shapes to shape and portion products and check end-product shapes</li> <li>Interprets measurement information to set, monitor and adjust process parameters</li> <li>Completes production records using mathematical symbols and conventions</li> </ul>
Navigate the world of work	<ul style="list-style-type: none"> <li>Complies with workplace health and safety and food safety regulatory requirements relevant to a commercial baking operation</li> <li>Follows organisational policies and procedures relevant to own work role</li> </ul>
Get the work done	<ul style="list-style-type: none"> <li>Plans, organises and implements tasks required to achieve production outcomes</li> <li>Uses problem-solving skills to analyse product and process faults and decide on appropriate action</li> </ul>

## Range of Conditions

*This section specifies different work environments and conditions that may affect performance. Essential operating conditions that may be present (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) are included.*

Sponge cake baking equipment must include:	<ul style="list-style-type: none"> <li>equipment, including: <ul style="list-style-type: none"> <li>industrial oven</li> <li>hand washing sinks</li> <li>industrial mixer and attachments</li> </ul> </li> <li>equipment accessories, including: <ul style="list-style-type: none"> <li>cake whisk</li> <li>sink taps and accessories</li> <li>industrial oven decks and accessories</li> </ul> </li> <li>ancillary equipment, including: <ul style="list-style-type: none"> <li>sponge baking trays</li> <li>sponge tins</li> <li>cupcake tins</li> <li>ingredient storage containers</li> </ul> </li> <li>tools and utensils, including: <ul style="list-style-type: none"> <li>pallet knives</li> </ul> </li> </ul>
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	<ul style="list-style-type: none"> <li>• piping bags</li> <li>• piping nozzles</li> <li>• plastic scrapers</li> <li>• icing sieves</li> <li>• measuring jugs</li> <li>• mixing bowls.</li> </ul>
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## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPRBK3008 Produce sponge cake products	FDFRB3003A Produce sponge, cake and cookie batter	Redesigned unit that includes content from previous unit	No equivalent unit
	FDFRB3004A Decorate cakes and cookies	Redesigned unit that includes content from previous unit	No equivalent unit
	FDFRB3006A Bake sponges, cakes and cookies	Redesigned unit that includes content from previous unit	No equivalent unit
	FDFRB3012A Diagnose and respond to product and process faults (pastry, cake and cookies)	Redesigned unit that includes content from previous unit	No equivalent unit

## Links

Companion Volumes, including Implementation Guides, are available at VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# Assessment Requirements for FBPRBK3008 Produce sponge cake products

## Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package version 1.0

## Performance Evidence

An individual demonstrating competency in this unit must satisfy all of the elements and performance criteria of this unit.

There must be evidence that the individual has produced sponge cake products according to a production schedule, including:

- producing the following four types of sponge products:
  - decorated sponge cake (round or square), minimum 7-inch or 18-centimetre diameter in size
  - sponge roll
  - individual portioned sponge product
  - sponge layer cake
- mixing and using the following two sponge cake batters:
  - mixing scratch mix sponge with or without emulsifier
  - mixing premix sponge
- incorporating the following four sponge cake processing techniques:
  - spreading
  - rolling
  - layering
  - depositing
- selecting, using and cleaning the baking equipment listed in the range of conditions, including controlling electrical hazards applicable to cleaning
- finishing and decorating using the following four methods:
  - masking and combing
  - splitting and filling
  - applying piped finishes with cream or icing
  - garnishing
- adding the following two creams and icings:

- fresh cream or imitation cream
- icing or basic butter cream
- applying two of the following four piped finishing types:
  - rosettes
  - scrolls
  - rope
  - swirls
- preparing and using the following three chocolate decorations:
  - writing simple celebration inscription
  - chocolate shavings
  - chocolate filigrees
- documenting the production schedule, including the following six considerations:
  - timings
  - volume requirements
  - product processing requirements
  - recipe reformulation to minimise waste
  - finishing requirements for sponge cake products
  - bake parameters for sponge cake products.

Wastage that cannot be reused in production must be less than 5% of the weight of the original production schedule.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- workplace health and safety requirements, including personal protective equipment, applicable to producing sponge products
- safe use and cleaning of baking equipment listed in the range of conditions, including electrical hazards
- regulatory requirements for food safety applicable to producing sponge cake products
- techniques and considerations for production scheduling, including:
  - timings
  - volume requirements
  - product processing requirements
  - recipe reformulation to minimise waste
  - finishing requirements for sponge cake products
  - bake parameters for sponge cake products
- characteristics and storage requirements of ingredients used in sponge products production, including:

- sponge premixes
- eggs
- sugar
- cake fats and shortenings
- cake flour
- sponge emulsifiers
- colouring and flavouring additives
- fresh cream
- imitation cream
- compound chocolate
- jams, conserves and spreads
- determining the correct quantity of colourings and flavourings to match sponge batter size
- selecting and preparing tins and trays to match sponge cake types, including:
  - greasing
  - spraying
  - papering
- recipe formulations for sponge cake, including:
  - genoise
  - traditional
  - premix
  - emulsified
- processes required for producing sponge cake batters, including:
  - mixing, including combination aerated and physically aerated
  - depositing
  - baking, including time and temperatures for sponge batter type and volume
  - de-panning without damage
  - cooling
  - packaging
- preparation and applications of finishes, including:
  - aerating fresh creams
  - mixing icings
  - masking and combing sponges
  - piping decorations
  - melting compound chocolate
  - piping simple inscriptions for special occasion decorating
  - splitting and filling sponges
- storage requirements for finished sponge cake products
- techniques for testing bake of sponge by feel and sight
- causes and corrective action for predictable and sometimes unpredictable sponge cake production problems, including:

- machinery failure
- environmental factors, including heat, humidity and cold
- poor quality ingredients
- techniques for disposing of waste
- sponge products production terminology.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - a commercial bakery or an environment that accurately represents workplace conditions
- resources, equipment and materials:
  - personal protective equipment
  - equipment specified in the range of conditions
  - ingredients that meet the sponge cake product types required in the performance evidence
- specifications:
  - recipes that meet the sponge cake products product types required in the performance evidence
  - end-product quality specifications that meet the sponge cake product types required in the performance evidence
  - food safety code regulatory requirements applicable to producing sponge cake products
- timeframes:
  - according to the production schedule.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volumes, including Implementation Guides, are available at VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## FBPRBK3009 Produce biscuit and cookie products

### Modification History

Release	Comments
Release 1	This version released with the FBP Food, Beverage and Pharmaceuticals Training Package version 1.0

### Application

This unit of competency describes the skills and knowledge required to produce and finish biscuit and cookie products in a commercial baking environment.

This unit applies to individuals who apply a broad range of knowledge and skills with responsibility for their own work. This includes applying and communicating known solutions to predictable problems.

Food safety legislation applies to workers in this industry. Requirements vary between industry sectors and state/territory jurisdictions. Users are advised to check with their food safety authority for specific requirements.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

### Pre-requisite Unit

Nil

### Unit Sector

Retail baking (RBK)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare for work	1.1 Confirm product types and volumes to schedule production 1.2 Calculate yield and adjust recipe to meet required product volumes 1.3 Confirm work area and work practices meet food safety and

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	<p>workplace health and safety requirements</p> <p>1.4 Select and wear personal protective equipment according to safety requirements</p> <p>1.5 Select biscuit and cookie baking equipment and check to confirm readiness for use</p> <p>1.6 Select ingredients and check to confirm quality and quantity</p> <p>1.7 Prepare baking trays to match biscuit and cookie type</p>
2. Mix biscuit and cookie batters and doughs	<p>2.1 Measure ingredient quantities to meet recipe specifications</p> <p>2.2 Load ingredients into mixer and cook pots in required sequence as required for product type</p> <p>2.3 Operate mixer and monitor mixing in mixers and cook pots to mix biscuit and cookie batters and doughs</p> <p>2.4 Fold in ingredients as required to meet product type</p> <p>2.5 Check biscuit and cookie batters and doughs to identify batter faults and rectify</p> <p>2.6 Store biscuit and cookie batters and doughs according to food safety requirements</p>
3. Bake biscuit and cookie products	<p>3.1 Deposit, portion and cut biscuit and cookie batters and doughs to trays to meet product type</p> <p>3.2 Pre-bake finish cookies and biscuits as required to meet product type</p> <p>3.3 Set baking temperatures and times to prepare for baking</p> <p>3.4 Load oven and monitor to achieve correct bake and stability for biscuit and cookie product type</p> <p>3.5 Use sight and feel to assess bake of biscuit and cookie products</p> <p>3.6 Unload baked biscuit and cookie products to cool</p> <p>3.7 Check biscuit and cookie bake to identify faults and rectify</p>
4. Prepare finishing mediums	<p>4.1 Assemble finishing ingredients and equipment and prepare for use</p> <p>4.2 Measure finishing ingredient quantities to meet recipe specifications</p> <p>4.3 Operate and monitor mixer to prepare creams and icings as required for product type</p> <p>4.4 Melt and prepare chocolate for decorating as required for product</p>



Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	type 4.5 Prepare jams for decorating as required for product type 4.6 Prepare garnishes for decorating as required for product type 4.7 Prepare piping bags to decorate with chocolate and pipe finishing decorations 4.8 Check finishing mediums to identify faults and rectify
5. Finish biscuit and cookie products	5.1 Fill biscuit and cookie products as required for product type 5.2 Apply garnishes and decorating finishes to decorate biscuit and cookie products as required for product type 5.3 Check finished biscuit and cookie products to identify finishing faults and rectify 5.4 Prepare and transfer finished biscuit and cookie products for presentation and storage according to packaging and food safety requirements
6. Complete work	6.1 Clean equipment and work area to meet housekeeping standards 6.2 Dispose of waste according to workplace requirements 6.3 Complete workplace records according to workplace requirements

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"> <li>Interprets key information from recipes, ingredient labels, baking equipment operating instructions, and end-product specifications</li> </ul>
Writing	<ul style="list-style-type: none"> <li>Prepares production schedules and completes production records using required format, language and structure</li> </ul>
Numeracy	<ul style="list-style-type: none"> <li>Identifies and comprehends ingredient quantities in recipes, dates on ingredient labels, and temperature and timer settings</li> <li>Estimates approximate quantities, and uses equipment to measure ingredient weights and volumes</li> <li>Performs calculations to adjust recipes using baking formulas, and</li> </ul>

Skill	Description
	<ul style="list-style-type: none"> <li>allows for wastage</li> <li>• Uses understanding of three-dimensional shapes to shape and portion products and check end-product shapes</li> <li>• Interprets measurement information to set, monitor and adjust process parameters</li> <li>• Completes production records using mathematical symbols and conventions</li> </ul>
Navigate the world of work	<ul style="list-style-type: none"> <li>• Complies with workplace health and safety and food safety regulatory requirements relevant to a commercial baking operation</li> <li>• Follows organisational policies and procedures relevant to own work role</li> </ul>
Get the work done	<ul style="list-style-type: none"> <li>• Plans, organises and implements tasks required to achieve production outcomes</li> <li>• Uses problem-solving skills to analyse product and process faults and decide on appropriate action</li> </ul>

## Range of Conditions

*This section specifies different work environments and conditions that may affect performance. Essential operating conditions that may be present (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) are included.*

Biscuit and cookie baking equipment must include:	<ul style="list-style-type: none"> <li>• equipment, including: <ul style="list-style-type: none"> <li>• industrial mixer and attachments</li> <li>• industrial cook tops</li> </ul> </li> <li>• equipment accessories, including: <ul style="list-style-type: none"> <li>• whisk attachment</li> <li>• beater attachment</li> <li>• gas or electric hot plates and attachments</li> <li>• dish washing sinks, taps and accessories</li> <li>• cook pots</li> <li>• baking trays</li> <li>• dry ingredient containers</li> <li>• refrigerated ingredient containers</li> <li>• mixing bowls</li> <li>• equipment used to melt chocolate</li> </ul> </li> <li>• tools and utensils, including: <ul style="list-style-type: none"> <li>• hand whisks</li> </ul> </li> </ul>
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	<ul style="list-style-type: none"> <li>• hand spoons</li> <li>• biscuit and pastry cutters</li> <li>• rolling pins</li> <li>• flour brushes</li> <li>• egg wash brushes</li> <li>• piping bags</li> <li>• piping nozzles.</li> </ul>
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## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPRBK3009 Produce biscuit and cookie products	FDFRB3003A Produce sponge, cake and cookie batter	Redesigned unit that includes content from previous unit	No equivalent unit
	FDFRB3004A Decorate cakes and cookies	Redesigned unit that includes content from previous unit	No equivalent unit
	FDFRB3006A Bake sponges, cakes and cookies	Redesigned unit that includes content from previous unit	No equivalent unit
	FDFRB3012A Diagnose and respond to product and process faults (pastry, cake and cookies)	Redesigned unit that includes content from previous unit	No equivalent unit

## Links

Companion Volumes, including Implementation Guides, are available at VETNet -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# Assessment Requirements for FBPRBK3009 Produce biscuit and cookie products

## Modification History

Release	Comments
Release 1	This version released with the FBP Food, Beverage and Pharmaceuticals Training Package version 1.0

## Performance Evidence

An individual demonstrating competency in this unit must satisfy all of the elements and performance criteria of this unit.

There must be evidence that the individual has produced biscuit and cookie products, including:

- producing the following four types of biscuit and cookie products:
  - deposited cookie
  - piped shortbread
  - cut or portioned rolled biscuit
  - moulded and portioned biscuit
- using the following three biscuit and cookie mixing methods:
  - creamed method
  - whisked method
  - melted method
- applying the following nine production processes:
  - piping shortbread
  - depositing
  - conditioning fruit
  - roasting nuts
  - cutting biscuits with cutters
  - rolling biscuit dough
  - moulding biscuit dough
  - portioning biscuit doughs
  - inclusion of glace fruits or nuts into biscuit and cookie doughs
- selecting, using and cleaning the baking equipment listed in the range of conditions, including controlling electrical hazards applicable to cleaning
- applying the following five finishing and decorating methods:
  - using piped decorations

- sandwiching
- dusting
- dipping
- applying glazes or icings
- using the following three finishing ingredients:
  - fondant icing
  - melted chocolate
  - icing sugar
- documenting the production schedule, including the following six considerations:
  - timings
  - volume requirements
  - product processing requirements
  - recipe reformulation to minimise waste
  - finishing requirements for biscuit and cookie product types
  - bake parameters of biscuit and cookie product types.

Wastage that cannot be reused in production must be less than 5% of the weight of the original production schedule.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- workplace health and safety requirements, including personal protective equipment, applicable to producing biscuit and cookie products
- safe use and cleaning of baking equipment listed in the range of conditions, including electrical hazards
- regulatory requirements for food safety applicable to producing biscuit and cookie products
- considerations for production scheduling, including:
  - timings
  - volume requirements
  - product processing requirements
  - recipe reformulation to minimise waste
  - finishing requirements for biscuit and cookie product types
  - bake parameters of biscuit and cookie product types
- characteristics and storage requirements of ingredients used in biscuit and cookie products production, including:
  - flour suitable for biscuits and cookies
  - preparation of nuts and nut allergies

- compound chocolate
- glace fruits
- preparing and using finishes, including:
  - glace fruit
  - chocolate, including melting properties
  - nuts, including roasting
  - jams
  - fondant heating
  - dipping
  - sandwiching
- processes and techniques for producing biscuit and cookie products, including:
  - hand depositing
  - piping batter in shapes
  - cutting dough
  - moulding dough
  - baking
  - storing, including refrigerating and freezing
  - packaging
- techniques for preparing tins and trays to match biscuit and cookie types, including:
  - spraying
  - papering
- mixing processes for:
  - creamed method
  - whisked method
- shelf life of biscuit and cookie products
- purpose and functions of baking settings, including:
  - oven temperatures
  - baking times
- techniques for testing bake of biscuit and cookie by feel and sight
- required characteristics of biscuit and cookie products, including:
  - crumb structure
  - dryness of biscuit
  - softness of cookie
- causes and corrective action for predictable and sometimes unpredictable biscuit and cookie production problems, including:
  - machinery failure
  - environmental factors, including heat, humidity and cold
  - poor quality ingredients
- techniques for disposing of waste from biscuit and cookie production
- biscuit and cookie products production terminology.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - a commercial bakery or an environment that accurately represents workplace conditions
- resources, equipment and materials:
  - equipment specified in the range of conditions
  - industrial oven
  - personal protective equipment
  - ingredients that meet the biscuit and cookie product types required in the performance evidence
- specifications:
  - recipes that meet the biscuit and cookie product types required in the performance evidence
  - end-product quality specifications that meet the biscuit and cookie product types required in the performance evidence
  - food safety code regulatory requirements applicable to producing biscuit and cookie products
- timeframes:
  - according to the production schedule.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volumes, including Implementation Guides, are available at VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## FBPRBK3010 Produce cake and pudding products

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package version 1.0

### Application

This unit of competency describes the skills and knowledge required to produce and finish cake and pudding products in a commercial baking environment.

This unit applies to individuals who apply a broad range of knowledge and skills with responsibility for their own work. This includes applying and communicating known solutions to predictable problems.

All work must be carried out to comply with workplace procedures, in accordance with State/Territory food safety, and work health and safety, regulations and legislation that apply to the workplace.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

### Pre-requisite Unit

Nil

### Unit Sector

Retail baking (RBK)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare for work	1.1 Confirm product types and volumes to schedule production 1.2 Calculate yield and adjust recipe to meet required production



Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	<p>volume</p> <p>1.3 Confirm work area and work practices meet food safety and workplace health and safety requirements</p> <p>1.4 Select and wear personal protective equipment according to safety requirements</p> <p>1.5 Select cake and pudding baking and steaming equipment and check to confirm readiness for use</p> <p>1.6 Select ingredients and check to confirm quality and quantity</p> <p>1.7 Clean and condition dried fruits to prepare for use</p> <p>1.8 Prepare tins, trays and pans to match cake and pudding types</p>
2. Mix cake and pudding batter	<p>2.1 Measure ingredient quantities to meet recipe specifications</p> <p>2.2 Load ingredients into mixer in required sequence</p> <p>2.3 Operate and monitor mixer to mix batter</p> <p>2.4 Fold in ingredients as required to meet cake and pudding product type</p> <p>2.5 Check cake and pudding batters to identify faults and rectify</p>
3. Bake and steam cake and pudding products	<p>3.1 Deposit, spread and pipe cake and pudding product batters into tins and trays to prepare for baking</p> <p>3.2 Set baking and steaming temperatures and times to meet cake and pudding product type and size</p> <p>3.3 Load ovens and steamers and monitor baking and steaming to achieve even bake and steam of product for product type</p> <p>3.4 Use sight, feel and skewers to assess bake of cake and pudding products</p> <p>3.5 Unload and de-pan baked cake products to cool</p> <p>3.6 Check cake product bake and steam of pudding to identify faults and rectify</p>
4. Prepare finishing mediums	<p>4.1 Assemble finishing ingredients and equipment and prepare for use</p> <p>4.2 Measure finishing ingredient quantities to meet recipe specification</p> <p>4.3 Operate and monitor mixer to prepare icings and glazes as required for product type</p>

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	4.4 Prepare garnishes for decorating as required for product type 4.5 Prepare piping bags to pipe finishing decorations 4.6 Check finishing mediums to identify faults and rectify
5. Finish cake products	5.1 Cut cake products into portions as required for product type 5.2 Apply icings and glazes to mask cake products as required for product type 5.3 Apply garnishes and decorating finishes to decorate cake products as required for product type 5.4 Check finished cake products to identify finishing faults and rectify 5.5 Prepare and transfer products for presentation and storage according to packaging and food safety requirements
6. Complete work	6.1 Clean equipment and work area to meet housekeeping standards 6.2 Dispose of waste according to workplace requirements 6.3 Complete workplace records according to workplace requirements

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"> <li>Interprets key information from recipes, ingredient labels, baking equipment operating instructions and end-product specifications</li> </ul>
Writing	<ul style="list-style-type: none"> <li>Prepares production schedules and completes production records using required format, language and structure</li> </ul>
Numeracy	<ul style="list-style-type: none"> <li>Identifies and comprehends ingredient quantities in recipes, dates on ingredient labels, and temperature and timer settings</li> <li>Estimates approximate quantities, and uses equipment to measure ingredient weights and volumes</li> <li>Performs calculations to adjust recipes using baking formulas, and allows for wastage</li> <li>Uses understanding of three-dimensional shapes to shape and</li> </ul>

Skill	Description
	<ul style="list-style-type: none"> <li>portion products and check end-product shapes</li> <li>Interprets measurement information to set, monitor and adjust process parameters</li> <li>Completes production records using mathematical symbols and conventions</li> </ul>
Navigate the world of work	<ul style="list-style-type: none"> <li>Complies with workplace health and safety and food safety regulatory requirements relevant to a commercial baking operation</li> <li>Follows organisational policies and procedures relevant to own work role</li> </ul>
Get the work done	<ul style="list-style-type: none"> <li>Plans, organises and implements tasks required to achieve production outcomes</li> <li>Uses problem-solving skills to analyse product and process faults and decide on appropriate action</li> </ul>

## Range of Conditions

*This section specifies different work environments and conditions that may affect performance. Essential operating conditions that may be present (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) are included.*

Cake and pudding baking and steaming equipment must include:	<ul style="list-style-type: none"> <li>equipment, including: <ul style="list-style-type: none"> <li>industrial mixer and attachments</li> <li>dish washing sinks</li> <li>cool room or refrigerator</li> </ul> </li> <li>equipment accessories, including: <ul style="list-style-type: none"> <li>sink taps and accessories</li> <li>cool room or refrigerator shelving</li> </ul> </li> <li>ancillary equipment, including: <ul style="list-style-type: none"> <li>cake baking trays</li> <li>cake tins or hoops</li> <li>cooling wires</li> <li>equipment used to steam puddings</li> <li>mixing bowls</li> </ul> </li> <li>tools and utensils, including: <ul style="list-style-type: none"> <li>pallet knives</li> <li>serrated knife</li> <li>plastic scrapers</li> <li>sieves</li> </ul> </li> </ul>
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	<ul style="list-style-type: none"> <li>thermometer.</li> </ul>
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## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPRBK3010 Produce cake and pudding products	FDFRB3003A Produce sponge, cake and cookie batter	Redesigned unit that includes content from previous unit	No equivalent unit
	FDFRB3004A Decorate cakes and cookies	Redesigned unit that includes content from previous unit	No equivalent unit
	FDFRB3006A Bake sponges, cakes and cookies	Redesigned unit that includes content from previous unit	No equivalent unit
	FDFRB3012A Diagnose and respond to product and process faults (pastry, cakes and cookies)	Redesigned unit that includes content from previous unit	No equivalent unit

## Links

Companion Volumes, including Implementation Guides, are available at VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# Assessment Requirements for FBPRBK3010 Produce cake and pudding products

## Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package version 1.0

## Performance Evidence

An individual demonstrating competency in this unit must satisfy all of the elements and performance criteria of this unit.

There must be evidence that the individual has produced basic cake and pudding products according to the production schedule, including:

- producing and decorating the following six cake and pudding product varieties:
  - fruit cake decorated with fondant or plastic icing
  - steamed pudding
  - flavoured bar cake decorated with icing
  - cake slice decorated with icing or glaze
  - flavoured cupcake or muffin
  - special dietary cake
- producing specialty dietary cake to one of the following two dietary requirements:
  - vegan
  - gluten-free
- using the following three cake and pudding mixing methods:
  - all in mixing method
  - mixing sugar batter method
  - mixing flour batter method
- using the following five production processes and techniques:
  - depositing cake and pudding batter
  - steaming of puddings
  - baking of cakes
  - conditioning of dried fruit
  - portioning and slicing of cakes and slices
- using the following two decorating and finishing techniques:
  - covering and garnishing with RTR, fondant or plastic icing

- spreading with icing or glaze
- conditioning of dried fruit for use in batter for one of the following two products:
  - cake
  - pudding
- selecting, using and cleaning the baking equipment listed in the range of conditions, including controlling electrical hazards applicable to cleaning.
- documenting the production schedule, including the following six considerations:
  - timings
  - volume requirements
  - product processing requirements
  - decorating and finishing requirements for cakes
  - recipe reformulation to minimise waste
  - bake and steam parameters of cakes and puddings.

Wastage that cannot be reused in production must be less than 5% of the weight of the original production schedule.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- workplace health and safety requirements, including personal protective equipment, applicable to producing cake and pudding products
- safe use and cleaning of baking equipment listed in the range of conditions, including electrical hazards
- regulatory requirements for food safety applicable to producing cake and pudding products
- considerations for production scheduling, including:
  - timings
  - volume requirements
  - product processing requirements
  - recipe reformulation to minimise waste
  - decorating and finishing requirements for cakes
  - bake and steam parameters of cakes and puddings
- types, functions and storage requirements of ingredients as used in cake and pudding products production, including:
  - eggs
  - sugar
  - cake fats
  - cake flours
  - baking powder

- bicarbonate soda
- dried fruit
- ready to roll (RTR)/fondant/plastic icing
- icings and glazes
- special dietary requirements for cakes, including both vegan and gluten-free
- techniques for preparing tins and trays to match cake and pudding types, including:
  - greasing
  - spraying
  - insulating baking tins and pans to match richness of cakes
- ingredient ratios and mixing processes:
  - fruit cake and puddings
  - pound cake
  - hi-ratio cake
- processes for producing cake and pudding products, including:
  - insulating
  - baking, including radiant and conductive heat
  - steaming and boiling
  - de-panning without damage
  - cooling
  - finishing
  - packaging
- types of finishing mediums, including:
  - icings
  - glazes
  - RTR icing, fondant and plastic icing
- techniques for portioning cakes and cake slices to suit end-product and finishing requirements
- shelf life of cakes and puddings
- techniques for selecting tins and trays appropriate for cake and pudding product size and shape
- purpose and functions of production settings, including:
  - oven temperatures to match richness of cakes
  - baking times to match richness of cakes
  - steaming times and temperatures for pudding batter type and volume
- techniques for testing bake of cakes and puddings by feel, sight and skewer
- causes and corrective action for predictable and sometimes unpredictable cake and pudding production problems, including:
  - machinery failure
  - poor quality ingredients
- techniques for disposing of waste from cake and pudding production
- cake and pudding products production terminology.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - a commercial bakery or an environment that accurately represents workplace conditions
- resources, equipment and materials:
  - personal protective equipment
  - equipment specified in the range of conditions
  - industrial oven
  - ingredients that meet the cake and pudding product types required in the performance evidence
- specifications:
  - recipes that meet the cake and pudding product types required in the performance evidence
  - end-product quality specifications that meet the cake and pudding product types required in the performance evidence
  - food safety code regulatory requirements applicable to producing cake and pudding products
- timeframes:
  - according to the production schedule.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volumes, including Implementation Guides, are available at VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>



## FBPRBK3011 Produce frozen dough products

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package version 1.0

### Application

This unit of competency describes the skills and knowledge required to produce frozen dough products in a commercial baking environment.

This unit applies to individuals who apply a broad range of knowledge and skills with responsibility for their own work. This includes applying and communicating known solutions to predictable problems.

All work must be carried out to comply with workplace procedures, in accordance with State/Territory food safety, and work health and safety, regulations and legislation that apply to the workplace.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

### Pre-requisite Unit

FBPRBK3005 Produce basic bread products.

### Unit Sector

Retail baking (RBK)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare for work	1.1 Confirm product types and volumes to schedule production 1.2 Calculate yield and adjust recipe to meet required production volume

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	<p>1.3 Confirm work area and work practices meet food safety and workplace health and safety requirements</p> <p>1.4 Select and wear personal protective equipment according to safety requirements</p> <p>1.5 Select frozen and par baked dough baking equipment and check to confirm readiness for use</p> <p>1.6 Select ingredients and check to confirm quality and quantity</p>
2. Mix frozen dough	<p>2.1 Measure ingredient quantities to meet recipe specification</p> <p>2.2 Load ingredients into mixer in required ingredient placement</p> <p>2.3 Operate and monitor mixer to achieve frozen dough development for product type</p> <p>2.4 Check frozen and par baked dough to identify dough faults and rectify</p>
3. Process frozen and par baked doughs	<p>3.1 Divide, scale, mould and intermediate prove frozen and par baked dough to meet required end-product shape and baked weight</p> <p>3.2 Final mould frozen and par baked dough and place on freezing or baking surfaces</p> <p>3.3 Laminate and finish frozen and par baked dough as required prior to freezing or par baking</p> <p>3.4 Check processed frozen and par baked dough to identify faults and rectify</p> <p>3.5 Package and freeze frozen and par baked dough to meet food safety requirements</p>
4. Par bake bread products	<p>4.1 Final prove par baked dough to prepare for baking</p> <p>4.2 Set baking temperatures and times to prepare for par baking</p> <p>4.3 Visually check dough size to confirm readiness for baking</p> <p>4.4 Load oven and steam as required for product type</p> <p>4.5 Monitor baking to achieve internal par bake temperature for par bake</p> <p>4.6 Unload and de-pan par baked product to cool</p> <p>4.7 Check par baked bread products to identify faults and rectify</p> <p>4.8 Package and freeze par baked bread product to meet food safety requirements</p>

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
5. Recover frozen doughs and par baked breads	5.1 Transfer frozen doughs and par baked breads from frozen storage to trays and pans, to recover and thaw according to food safety requirements 5.2 Final prove frozen doughs as required for product type 5.3 Check recovered doughs and par baked breads to identify faults and rectify
6. Finish frozen dough products	6.1 Prepare pre-bake finishing mediums to meet recipe specifications 6.2 Prepare simple fillings to meet recipe specifications 6.3 Pre-bake finish frozen and par baked products to meet end-product specifications 6.4 Check pre-bake finished products to identify faults and rectify
7. Bake frozen dough products	7.1 Set baking temperatures and times to prepare for baking 7.2 Visually check frozen dough size to confirm readiness for baking 7.3 Load oven and steam frozen bread as required for product type 7.4 Monitor baking to achieve baked colour and stability required for frozen dough product type 7.5 Unload and de-pan baked products to cool 7.6 Check product bake to identify faults and rectify
8. Finish frozen and par baked dough products	8.1 Prepare post-bake finishing mediums to meet recipe specifications 8.2 Post-bake finish products to meet end-product specifications 8.3 Check post-bake finished products to identify faults and rectify
9. Complete work	9.1 Clean equipment and work area to meet housekeeping standards 9.2 Dispose of waste according to workplace requirements 9.3 Complete workplace records according to workplace requirements

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"> <li>Interprets key information from recipes, ingredient labels, baking equipment operating instructions, and end-product specifications</li> </ul>
Writing	<ul style="list-style-type: none"> <li>Prepares production schedules and completes production records using required format, language and structure</li> </ul>
Numeracy	<ul style="list-style-type: none"> <li>Identifies and comprehends ingredient quantities in recipes, dates on ingredient labels, and temperature, humidity and timer settings</li> <li>Estimates approximate quantities, and uses equipment to measure ingredient weights and volumes, and water and dough temperatures</li> <li>Divides dough into equal portions by estimated weight</li> <li>Performs calculations to adjust recipes using baking formulas, and allows for wastage</li> <li>Uses understanding of three-dimensional shapes to mould dough shapes and check end-product shapes</li> <li>Interprets measurement information to set, monitor and adjust process parameters</li> <li>Completes production records using mathematical symbols and conventions</li> </ul>
Navigate the world of work	<ul style="list-style-type: none"> <li>Complies with workplace health and safety and food safety regulatory requirements relevant to a commercial baking operation</li> <li>Follows organisational policies and procedures relevant to own work role</li> </ul>
Get the work done	<ul style="list-style-type: none"> <li>Plans, organises and implements tasks required to achieve production outcomes</li> <li>Uses problem-solving skills to analyse product and process faults and decide on appropriate action</li> </ul>

## Range of Conditions

*This section specifies different work environments and conditions that may affect performance. Essential operating conditions that may be present (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) are included.*

Frozen and par baked dough baking equipment must include:	<ul style="list-style-type: none"> <li>equipment, including:             <ul style="list-style-type: none"> <li>industrial oven</li> <li>industrial prover</li> <li>industrial mixer and attachments</li> <li>pastry sheeter/dough break or rolling pin</li> <li>freezer</li> </ul> </li> </ul>
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	<ul style="list-style-type: none"> <li>• equipment accessories, including: <ul style="list-style-type: none"> <li>• oven baking trays</li> <li>• freezing trays</li> <li>• freezing racks</li> </ul> </li> <li>• ancillary equipment, including: <ul style="list-style-type: none"> <li>• rolling pin</li> <li>• cooling wires</li> <li>• dough and pastry benches</li> </ul> </li> <li>• tools and utensils, including: <ul style="list-style-type: none"> <li>• rolling pins</li> <li>• cake knives</li> <li>• bread knives</li> <li>• processing knives</li> <li>• dough scrapers.</li> </ul> </li> </ul>
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## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPRBK3011 Produce frozen dough products	FDFRB3008A Store, handle and use frozen dough	Supersedes and replaces FDFRB3008A  Elements and performance criteria added that include mixing and par baking of frozen dough	No equivalent unit

## Links

Companion Volumes, including Implementation Guides, are available at VETNet -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# Assessment Requirements for FBPRBK3011 Produce frozen dough products

## Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package version 1.0

## Performance Evidence

An individual demonstrating competency in this unit must satisfy all of the elements and performance criteria of this unit.

There must be evidence that the individual has produced frozen dough products according to a production schedule, including:

- producing the following five frozen dough baked products:
  - laminated frozen dough product
  - basic bread frozen dough product
  - sweet yeast bread frozen dough product
  - specialty flour bread frozen dough product
  - chemical leavened frozen dough
- incorporating the following four frozen dough processes:
  - ready-to-prove frozen dough
  - ready-to-bake frozen dough
  - par baked frozen dough
  - finishing frozen dough
- using one of the following two simple fillings:
  - simple sweet filling
  - simple savoury filling
- producing the following four product shapes:
  - baguette
  - round or long roll
  - croissant or danish
  - cut or portioned
- producing the following three product styles:
  - decorated frozen dough

- undecorated frozen dough
- undecorated par baked dough
- finishing the products using the following four techniques:
  - dusting
  - glazing
  - piping
  - scoring
- selecting tins and trays appropriate for dough piece scale weight, volume and size
- selecting, using and cleaning the baking equipment listed in the range of conditions, including controlling electrical hazards applicable to cleaning
- documenting the production schedule, including the following seven considerations:
  - timings for freezing frozen and par baked dough
  - timings for thawing frozen and par baked dough
  - product processing requirements for frozen and par baked dough
  - volume requirements
  - recipe reformulation to minimise waste
  - freezing and thawing times
  - bake parameters for frozen product.

Wastage that cannot be reused in production must be less than 5% of the weight of the original production schedule.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- workplace health and safety requirements, including personal protective equipment, applicable to producing frozen dough products
- safe use and cleaning of baking equipment listed in the range of conditions, including electrical hazards
- regulatory requirements for food safety applicable to producing frozen dough products, including temperature control
- techniques and considerations for production scheduling, including:
  - timings for freezing frozen and par baked dough
  - timings for thawing frozen and par baked dough
  - product processing requirements for frozen and par baked dough
  - volume requirements
  - recipe reformulation to minimise waste
  - freezing and thawing times
  - bake parameters for frozen product
- characteristics and storage requirements of frozen dough types, including:

- ready-to-prove frozen dough
- ready-to-bake frozen dough
- par baked frozen dough
- chemically leavened frozen dough
- functions and characteristics for frozen and par baked dough ingredients, including:
  - yeast levels
  - sugar inclusion
  - water and temperature of water
  - effects of salt
- principles and techniques of freezing doughs, including:
  - snap freezing
  - storage stages, including freeze down and recovery
  - maintaining freezer temperatures
  - freezing times for dough types and sizes
  - optimal storage times
  - internal bake temperatures of par baked breads
  - storage patterns for frozen dough, including making efficient use of storage space, stock rotation and minimising temperature fluctuations
- principles of thawing frozen and par baked doughs, including:
  - thawing times for dough types and sizes
  - consequences of slow or fast thawing
  - thawing rate for yeast doughs
- types, functions, safe use, cleaning and freezing capacity of dough freezing equipment, including:
  - conventional freezers
  - blast freezers
- handling requirements for made-up and proved doughs to preserve dough structure
- impacts of factors on production of different frozen dough products, including:
  - finished dough temperature (FDT)
  - dough size
  - dough shape
  - yeast activity
  - processing frozen dough in cool phase
  - processing frozen dough in warm phase
- techniques for calculating yields, adjusting recipes and measuring ingredients
- causes and corrective action for predictable and sometimes unpredictable frozen dough product production problems, including:
  - frozen dough inconsistent temperature
  - frozen dough inconsistent moisture control
  - machinery failure



- environmental factors, including heat, humidity and cold
- poor quality ingredients
- techniques for disposing of waste from frozen dough product production
- frozen dough product production terminology.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - a commercial bakery or an environment that accurately represents workplace conditions
- resources, equipment and materials:
  - personal protective equipment
  - equipment specified in the range of conditions
  - ingredients that meet the frozen dough product types required in the performance evidence
- specifications:
  - recipes that meet the frozen dough product types required in the performance evidence
  - end-product quality specifications that meet the product types required in the performance evidence
  - food safety code regulatory requirements applicable to producing frozen dough products
- timeframes:
  - according to the production schedule.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volumes, including Implementation Guides, are available at VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## FBPRBK3012 Schedule and produce bread production

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package version 1.0

### Application

This unit of competency describes the skills and knowledge required to schedule and produce bread production in a commercial baking environment.

This unit applies to individuals who apply a broad range of knowledge and skills with responsibility for their own work. This includes applying and communicating known solutions to predictable problems.

All work must be carried out to comply with workplace procedures, in accordance with State/Territory food safety, and work health and safety, regulations and legislation that apply to the workplace.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

### Pre-requisite Unit

Nil

### Unit Sector

Retail baking (RBK)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Plan bread production schedule	1.1 Identify bread production targets to meet daily production requirements 1.2 Reformulate master recipes to meet production target

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	1.3 Estimate process timing and plan process sequence to meet bread production targets 1.4 Document production schedule according to workplace requirements
2. Plan bread production resources and processes	2.1 Identify equipment requirements and check to confirm availability and operational readiness for bread production 2.2 Calculate ingredient quantities required to meet bread production targets 2.3 Confirm availability and quality of ingredient stocks to prepare for bread production
3. Implement bread production	3.1 Implement the production schedule to produce baked products 3.2 Monitor bread production against the production schedule to identify variances, and rectify to ensure bread production targets are met 3.3 Monitor and control food safety risks to meet food safety standards 3.4 Monitor and control workplace health and safety risks to meet workplace health and safety requirements 3.5 Assess baked bread products against required volumes and end-product specifications to identify faults and rectify
4. Complete bread production	4.1 Clean equipment and work area to meet housekeeping standards 4.2 Dispose of waste according to workplace requirements 4.3 Document scheduling adjustments and production outputs according to workplace requirements

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"> <li>Interprets key information from recipes, ingredient labels, baking equipment operating instructions, and end-product specifications</li> </ul>

Skill	Description
Writing	<ul style="list-style-type: none"> <li>Prepares production schedules and completes production records using required format, language and structure</li> </ul>
Numeracy	<ul style="list-style-type: none"> <li>Identifies and comprehends ingredient quantities in recipes, dates on ingredient labels, and temperature, humidity and timer settings</li> <li>Performs calculations to establish production targets, adjust recipes using baking formulas, and allow for wastage</li> <li>Interprets measurement information to set, monitor and adjust process parameters</li> <li>Completes production records using mathematical symbols and conventions</li> </ul>
Navigate the world of work	<ul style="list-style-type: none"> <li>Complies with workplace health and safety and food safety regulatory requirements relevant to a commercial baking operation</li> <li>Follows organisational policies and procedures relevant to own work role</li> </ul>
Get the work done	<ul style="list-style-type: none"> <li>Plans, organises and implements tasks required to achieve production outcomes</li> <li>Uses problem-solving skills to analyse product and process faults and decide on appropriate action</li> </ul>

## Range of Conditions

*This section specifies different work environments and conditions that may affect performance. Essential operating conditions that may be present (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) are included.*

Daily production requirements must include:	<ul style="list-style-type: none"> <li>baked bread products</li> <li>bread production volume</li> <li>end-product specifications</li> <li>times for completion for baked bread products.</li> </ul>
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## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPRBK3012 Schedule and produce bread	FDFRB3016A Plan and schedule production for retail	Redesigned unit that includes content from the previous unit	No equivalent unit

production	bakery	Production of baked items added to the unit	
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## Links

Companion Volumes, including Implementation Guides, are available at VETNet -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## Assessment Requirements for FBPRBK3012 Schedule and produce bread production

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package version 1.0

### Performance Evidence

An individual demonstrating competency in this unit must satisfy all of the elements and performance criteria of this unit.

There must be evidence that the individual has scheduled production for and produced 19 bread products over a period of four shifts (Note: The scheduling of production is to be done prior to the production of the bread products), including:

- producing the following five bread product types:
  - condensed/sandwich loaves
  - iced decorated sweet yeast buns
  - savoury bread rolls
  - laminated yeast dough as croissant product
  - whole grain flour breads
- producing 14 of the following 17 bread product types:
  - crusty loaf with no more than 2% enriching agents that is plaited, Vienna, French stick or cob
  - soft/enriched bread roll variety
  - crusty/lean bread roll varieties
  - high top loaves, either married or single
  - fruited sweet yeast product
  - filled sweet yeast product
  - cream decorated sweet yeast bun
  - spiced sweet yeast bun or loaf
  - savoury flat bread
  - savoury steamed bread
  - savoury unleavened product
  - fried basic artisan product as decorated donuts

- sweet laminated yeast dough as danish product
- highly enriched basic artisan product
- wholemeal breads
- gluten-free breads
- rye breads
- using at least two of the following four mixing methods per shift:
  - instant/no time/rapid dough process
  - chemical leavened dough
  - bulk ferment
  - ferment
- monitoring operations and addressing variations to the production schedule, ensuring end-product specifications and production targets are met
- documenting and implementing four daily production schedules, including the following production scheduling considerations:
  - production timings
  - product quality
  - reformulation of recipes to suit products
  - finished dough or batter temperatures
  - mixing, processing, baking and finishing requirements for products
  - special equipment or resources required for production
  - scheduling for each stage of the bakery production process, including labour requirements
  - equipment types
- documenting a production report for each of the four shifts that includes the following considerations:
  - scheduling efficiencies for use of equipment and labour in relation to items produced
  - wastage efficiencies of products produced
  - improvements on the scheduling to meet performance
  - product quantities produced in relation to products scheduled
  - completion times of product
  - product quality outcomes.

Wastage that cannot be reused in production must be less than 5% of the weight of the original production schedule.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- workplace health and safety requirements applicable to scheduling and producing bread products

- regulatory requirements for food safety applicable to scheduling and producing bread products, including temperature control and the prevention of cross-contamination in the use of dairy, meat, poultry, fish and vegetable products
- techniques relevant to planning bread production, including:
  - production timings
  - product quality
  - reformulation of recipes to suit products
  - finished dough or batter temperatures
  - mixing, processing, baking and finishing requirements for products
  - special equipment or resources required for production
  - scheduling for each stage of the bakery production process
  - equipment types
- considerations relevant to reporting on production outcomes, including:
  - scheduling efficiencies and whether completion times were met
  - wastage efficiencies of products produced
  - improvements on the scheduling to meet performance
  - product quantities produced in relation to products scheduled
  - completion times of product
  - product quality outcomes
- techniques used to regulate dough maturation and proving, including:
  - formulation
  - temperature control
  - time
- predictable causes of production variation and their likely impact on production targets, including:
  - machine failure
  - product failure
  - calculation errors
  - estimation errors
- production processes for different product ranges, including:
  - use of specific equipment
  - use of specialised ingredients
  - additional preparation requirements
- baking industry terminology relevant to bread production planning.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - a commercial bakery or an environment that accurately represents workplace conditions



- resources, equipment and materials:
  - personal protective equipment
  - commercial bakery equipment and information on capacity
  - industrial oven
  - industrial mixer and attachments
  - pastry sheeter or dough break
  - refrigeration
  - ingredients to meet the product types required in the performance evidence
- specifications:
  - production schedule template that includes a level of detail that accurately represents workplace conditions
  - recipe specifications for the product types required in the performance evidence
  - formulae to calculate batch weight to finished product weight
  - end-product quality specifications to meet the product types required in the performance evidence
- timeframes:
  - over five shifts that can be continuous or staggered, consisting of one shift for upfront scheduling of production for the bread products specified in the performance evidence, and four daily shifts for the production of the baked products specified in the performance evidence.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volumes, including Implementation Guides, are available at VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## FBPRBK3013 Schedule and produce cake and pastry production

### Modification History

Release	Comments
Release 2	This version released with FBP Food, Beverage and Pharmaceutical Training Package version 2.0
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package version 1.0

### Application

This unit of competency describes the skills and knowledge required to schedule and produce cake and pastry production in a commercial baking environment.

This unit applies to individuals who apply a broad range of knowledge and skills with responsibility for their own work. This includes applying and communicating known solutions to predictable problems.

All work must be carried out to comply with workplace procedures, in accordance with State/Territory food safety, and work health and safety, regulations and legislation that apply to the workplace.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

### Pre-requisite Unit

Nil

### Unit Sector

Retail baking (RBK)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Plan cake and pastry	1.1 Establish cake and pastry production targets to meet daily

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
production schedule	production requirements 1.2 Reformulate master recipes to meet cake and pastry production targets 1.3 Estimate process timing and plan process sequence to meet cake and pastry production targets 1.4 Document production schedule according to workplace requirements
2. Plan cake and pastry resources and processes	2.1 Identify cake and pastry equipment requirements, and check to confirm availability and operational readiness for cake and pastry production 2.2 Calculate ingredient quantities required to meet cake and pastry production targets 2.3 Confirm availability and quality of ingredient stocks to prepare for cake and pastry production
3. Implement cake and pastry production	3.1 Implement the production schedule to produce cake and pastry products 3.2 Monitor cake and pastry production against the production schedule to identify variances, and rectify to ensure cake and pastry production targets are met 3.3 Monitor and control food safety risks to meet food safety standards 3.4 Monitor and control workplace health and safety risks to meet workplace health and safety requirements 3.5 Assess cake and pastry products against required volumes and end-product specifications to identify faults and rectify
4. Complete cake and pastry production	4.1 Clean equipment and work area to meet housekeeping standards 4.2 Dispose of waste according to workplace requirements 4.3 Document scheduling adjustments and production outputs according to workplace requirements

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"><li>Interprets key information from recipes, ingredient labels, baking equipment operating instructions and end-product specifications</li></ul>
Writing	<ul style="list-style-type: none"><li>Prepares production schedules and completes production records using required format, language and structure</li></ul>
Numeracy	<ul style="list-style-type: none"><li>Identifies and comprehends ingredient quantities in recipes, dates on ingredient labels, and temperature, humidity and timer settings</li><li>Performs calculations to establish production targets, adjust recipes using baking formulas and allow for wastage</li><li>Interprets measurement information to set, monitor and adjust process parameters</li><li>Completes production records using mathematical symbols and conventions</li></ul>
Navigate the world of work	<ul style="list-style-type: none"><li>Complies with workplace health and safety and food safety regulatory requirements relevant to a commercial baking operation</li><li>Follows organisational policies and procedures relevant to own work role</li></ul>
Get the work done	<ul style="list-style-type: none"><li>Plans, organises and implements tasks required to achieve production outcomes</li><li>Uses problem-solving skills to analyse product and process faults and decide on appropriate action</li></ul>

## Range of Conditions

*This section specifies different work environments and conditions that may affect performance. Essential operating conditions that may be present (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) are included.*

Daily production requirements must include:	<ul style="list-style-type: none"><li>cake and pastry products</li><li>cake and pastry production volume</li><li>end-product specifications</li><li>times for completion for cake and pastry products</li></ul>
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## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPRBK3013 Schedule and produce cake and pastry production Release 2	FBPRBK3013 Schedule and produce cake and pastry production Release 1	Corrected typographical error in Assessment Requirements	Equivalent unit

## Links

Companion Volume Implementation Guides are found in VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# Assessment Requirements for FBPRBK3013 Schedule and produce cake and pastry production

## Modification History

Release	Comments
Release 2	This version released with FBP Food, Beverage and Pharmaceutical Training Package version 2.0
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package version 1.0

## Performance Evidence

An individual demonstrating competency in this unit must satisfy all of the elements and performance criteria of this unit.

There must be evidence that the individual has scheduled production for and produced 15 cake and pastry products over a period of four shifts (Note: The scheduling of production is to be done prior to the production of the cake and pastry products), including:

- producing the following seven cake, pastry and bread product types:
  - laminated yeast dough as croissant product
  - decorated round or square sponge cake that has a minimum diameter of 18 centimetres
  - fruit cake decorated with ready to roll (RTR), fondant or plastic icing
  - deposited cookie
  - cream or custard filled laminated product
  - decorated and filled choux pastry
  - lean basic artisan rolls or loaves with no more than 2% enriching agents
- producing eight of the following 16 cake and pastry product types:
  - fried basic artisan product as decorated donuts
  - highly enriched basic artisan product
  - sponge roll
  - individual portioned sponge product
  - sponge layer cake
  - flavoured bar cake decorated with icing
  - cake slice decorated with icing or glaze
  - flavoured steam pudding
  - moulded and portioned biscuit
  - piped shortbread

- whisked biscuit or cookie
- sweet filled pastry slice
- vegetable filled laminated product
- meat filled laminated product
- filled sweet non laminated pies or tarts
- filled savoury non laminated pie or tart product
- mixing, processing, baking and finishing each of the four of the following types of baked products per shift:
  - bread or yeast product
  - cake or sponge
  - cookie or biscuit
  - laminated or non laminated pastry
- monitoring operations and addressing variations to the production schedule, ensuring end-product specifications and cake and pastry production targets are met
- documenting and implementing four daily production schedules, including the following production scheduling considerations:
  - production timings
  - product quality
  - reformulation of recipes to suit products
  - finished dough or batter temperatures
  - mixing, processing, baking and finishing requirements for products
  - special equipment or resources required for production
  - scheduling for each stage of the bakery production process, including labour requirements
  - equipment types
- documenting production reports for each of the four shifts that include the following considerations:
  - scheduling efficiencies for use of equipment and labour in relation to items produced
  - wastage efficiencies of products produced
  - improvements on the scheduling to meet performance
  - product quantities produced in relation to products scheduled
  - completion times of product
  - product quality outcomes.

Wastage that cannot be reused in production must be less than 5% of the weight of the original production schedule.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- workplace health and safety requirements applicable to scheduling and producing cake and pastry production
- requirements for food safety applicable to scheduling and producing cake and pastry products, including temperature control and the prevention of cross-contamination in the use of dairy, meat, poultry, fish and vegetable products
- considerations relevant to planning cake and pastry production, including:
  - production timings
  - product quality
  - reformulation of recipes to suit products
  - finished dough or batter temperatures
  - mixing, processing, baking and finishing requirements for products
  - special equipment or resources required for production
  - scheduling for each stage of the bakery production process
  - equipment types
- considerations relevant to reporting on production outcomes, including:
  - scheduling efficiencies, and whether completion times were met
  - wastage efficiencies of products produced
  - improvements on the scheduling to meet performance
  - product quantities produced in relation to products scheduled
  - completion times of product
  - product quality outcomes
- techniques used to regulate dough and batter maturation and proving, including:
  - formulation
  - temperature control
  - time
- predictable causes of production variation and their likely impact on production targets, including:
  - machine failure
  - product failure
  - calculation errors
  - estimation errors
- production processes for different product ranges, including:
  - use of specific equipment
  - use of specialised ingredients
  - additional preparation requirements
- baking industry terminology relevant to production planning.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:



- a commercial bakery or an environment that accurately represents workplace conditions
- resources, equipment and materials:
  - personal protective equipment
  - commercial bakery equipment and information on capacity
  - industrial oven
  - industrial mixer and attachments
  - pastry sheeter or dough break
  - refrigeration
  - ingredients to meet the product types required in the performance evidence
- specifications:
  - production schedule template that includes a level of detail that accurately represents workplace conditions
  - recipe specifications for the product types required in the performance evidence
  - formulae to calculate batch weight to finished product weight
  - end-product quality specifications to meet the product types required in the performance evidence
- timeframes:
  - five shifts that can be continuous or staggered, consisting of one shift for upfront scheduling of production for the cake and pastry products specified in the performance evidence, and four daily shifts for the production of the cake and pastry products specified in the performance evidence.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## FBPRBK3014 Produce sweet yeast products

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package version 1.0

### Application

This unit of competency describes the skills and knowledge required to produce sweet yeast products in a commercial baking environment. Sweet yeast products include enriched breads and fruited enriched breads.

This unit applies to individuals who apply a broad range of knowledge and skills with responsibility for their own work. This includes applying and communicating known solutions to predictable problems.

All work must be carried out to comply with workplace procedures, in accordance with State/Territory food safety, and work health and safety, regulations and legislation that apply to the workplace.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

### Pre-requisite Unit

Nil

### Unit Sector

Retail baking (RBK)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare for work	1.1 Confirm product types and volumes to schedule production 1.2 Calculate yield and adjust recipe to meet required production

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	<p>volumes</p> <p>1.3 Confirm work area and work practices meet food safety and workplace health and safety requirements</p> <p>1.4 Select and wear personal protective equipment according to safety requirements</p> <p>1.5 Select sweet yeast baking equipment and check to confirm readiness for use</p> <p>1.6 Select and prepare ingredients and check to confirm quality and quantity</p> <p>1.7 Clean and condition fruits to prepare for use</p> <p>1.8 Prepare sweet fillings as required for product type</p>
2. Mix sweet yeast dough	<p>2.1 Measure ingredient quantities to meet recipe specifications</p> <p>2.2 Load ingredients into mixer in required placement</p> <p>2.3 Operate and monitor mixer to achieve sweet yeast dough development for product type</p> <p>2.4 Check mixed sweet yeast dough to identify faults and rectify</p>
3. Process sweet yeast dough	<p>3.1 Divide, scale, mould and intermediate prove sweet yeast dough to meet end-product shape and baked weight</p> <p>3.2 Apply sweet fillings to sweet yeast doughs to meet product type</p> <p>3.3 Final mould sweet yeast dough to meet product requirements, and place on baking surfaces for final prove</p> <p>3.4 Retard sweet yeast dough as required for product type</p> <p>3.5 Final prove sweet yeast dough as required for product type</p> <p>3.6 Check processed sweet yeast dough to identify faults and rectify</p>
4. Bake sweet yeast products	<p>4.1 Set baking temperatures and times to prepare for baking</p> <p>4.2 Visually check dough size to confirm readiness for baking</p> <p>4.3 Monitor baking to achieve baked colour and stability required for sweet yeast product type</p> <p>4.4 Unload and de-pan sweet yeast products to cool</p> <p>4.5 Glaze products after baking as required for product type</p> <p>4.6 Check sweet yeast products to identify faults and rectify</p>

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
5. Finish sweet yeast products	5.1 Prepare finishing mediums to meet recipe specifications 5.2 Finish baked products to meet end-product specifications 5.3 Check finished products to identify faults and rectify 5.4 Prepare and transfer products for presentation and storage according to packaging and food safety requirements
6. Complete work	6.1 Clean equipment and work area to meet housekeeping standards 6.2 Dispose of waste according to workplace requirements 6.3 Complete workplace records according to workplace requirements

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"> <li>Interprets key information from recipes, ingredient labels, baking equipment operating instructions and end-product specifications</li> </ul>
Writing	<ul style="list-style-type: none"> <li>Prepares production schedules and completes production records using required format, language and structure</li> </ul>
Numeracy	<ul style="list-style-type: none"> <li>Identifies and comprehends ingredient quantities in recipes, dates on ingredient labels, and temperature, humidity and timer settings</li> <li>Estimates approximate quantities, and uses equipment to measure ingredient weights and volumes, and water and dough temperatures</li> <li>Performs calculations to adjust recipes using baking formulas, and allows for wastage</li> <li>Divides dough into equal portions by estimated weight</li> <li>Uses understanding of three-dimensional shapes to mould dough shapes and check end-product shapes</li> <li>Interprets measurement information to set, monitor and adjust process parameters</li> <li>Completes production records using mathematical symbols and conventions</li> </ul>
Navigate the world of	<ul style="list-style-type: none"> <li>Complies with workplace health and safety and food safety</li> </ul>

Skill	Description
work	<ul style="list-style-type: none"><li>regulatory requirements relevant to a commercial baking operation</li><li>Follows organisational policies and procedures relevant to own work role</li></ul>
Get the work done	<ul style="list-style-type: none"><li>Plans, organises and implements tasks required to achieve production outcomes</li><li>Uses problem-solving skills to analyse product and process faults and decide on appropriate action</li></ul>

## Range of Conditions

*This section specifies different work environments and conditions that may affect performance. Essential operating conditions that may be present (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) are included.*

Sweet yeast baking equipment must include:	<ul style="list-style-type: none"><li>equipment, including:<ul style="list-style-type: none"><li>industrial oven</li><li>industrial mixer and attachments</li></ul></li><li>ancillary equipment, including:<ul style="list-style-type: none"><li>dried fruit storage containers</li><li>jugs used for storing glazes</li><li>dry ingredient storage containers</li><li>baking trays used for sweet yeast</li><li>cooling wires used for sweet yeast</li></ul></li><li>tools and utensils, including:<ul style="list-style-type: none"><li>icing bags used for decorating</li><li>icing nozzles used for decorating</li><li>brushes used for glazing products</li><li>knives used for decorating and cutting.</li></ul></li></ul>
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## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPRBK3014 Produce sweet yeast products	FDFRB3014A Produce sweet yeast products	Redesigned unit that includes content from previous unit,	Equivalent unit

		excluding frying and laminated products	
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## Links

Companion Volumes, including Implementation Guides, are available at VETNet -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# Assessment Requirements for FBPRBK3014 Produce sweet yeast products

## Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package version 1.0

## Performance Evidence

An individual demonstrating competency in this unit must satisfy all of the elements and performance criteria of this unit.

There must be evidence that the individual has produced sweet yeast products according to a production schedule, including:

- producing the following five enriched sweet yeast products:
  - filled sweet yeast product
  - fruited sweet yeast product
  - spiced sweet yeast bun or loaf
  - cream decorated sweet yeast bun
  - iced decorated sweet yeast bun
- mixing and using the following three enriched doughs:
  - premix dough
  - instant dough/no time dough/scratch mix dough
  - bulk ferment dough
- using retarding for one of the sweet yeast doughs listed above
- using the following six moulding techniques:
  - rounding
  - batons
  - degassing
  - curling/rolling
  - sealing
  - scrolls
- using the following three finishing and decorating techniques:
  - using cream to decorate sweet yeast product
  - using icing to decorate sweet yeast product

- using fondant to decorate sweet yeast product
- selecting, using and cleaning the baking equipment listed in the range of conditions, including controlling electrical hazards applicable to cleaning
- selecting tins and trays appropriate for dough piece scale, weight, volume and size
- documenting the production schedule, including the following six considerations:
  - timings
  - volume requirements
  - product processing requirements
  - recipe reformulation to minimise waste
  - finishing requirements of sweet yeast products
  - baked parameters of sweet yeast products.

Wastage that cannot be reused in production must be less than 5% of the weight of the original production schedule.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- workplace health and safety requirements, including personal protective equipment, applicable to producing sweet yeast products
- safe use and cleaning of baking equipment listed in the range of conditions, including electrical hazards
- regulatory requirements for food safety applicable to producing sweet yeast products
- considerations for production scheduling, including:
  - timings
  - volume requirements
  - product processing requirements
  - recipe reformulation to minimise waste
  - finishing requirements of sweet yeast products
  - baked parameters of sweet yeast products
- recipe ratios and limits for enriched doughs
- types, functions, characteristics, and storage requirements of ingredients, including:
  - sugars
  - crumb softening agents
  - conditioned fruit
  - cream
  - icing
  - spices
- purpose and techniques for the cleaning, conditioning and use of fruits
- ingredient interactions for sweet yeast products, including:



- yeast and sugar ratios
- reduced salt levels
- reduced water levels
- characteristics of sweet yeast products, including:
  - filled sweet yeast product
  - fruited sweet yeast product
  - spiced sweet yeast bun or loaf
  - decorated sweet yeast product
- mixing processes and gluten development for enriched doughs
- principles of the sweet yeast production processes, including:
  - preparing fillings
  - inclusion of fruit and spices in sweet dough
  - decorating sweet yeast
  - cool phase retarding
  - warm phase retarding
  - baking
  - cooling
  - packaging
- techniques and requirements for finishing sweet yeast products
- impacts on production of different sweet yeast products, including:
  - dough temperature
  - mixing time and gluten development
  - water addition and consistency of dough
  - yeast activity
- techniques for calculating yields, adjusting recipes and measuring ingredients
- techniques for selecting tins and trays appropriate for dough piece scale weight, volume and size
- purpose and functions of sweet yeast settings, including:
  - baking times and temperatures
  - proving humidity and temperature
- required characteristics of sweet yeast products, including:
  - crumb softness
  - shelf life
  - flavour
  - visual appearance
- causes and corrective action for predictable and sometimes unpredictable sweet yeast problems, including:
  - machinery failure
  - environmental factors, including heat, humidity and cold
  - poor quality ingredients

- techniques for disposing of waste
- sweet yeast production terminology.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - a commercial bakery or an environment that accurately represents workplace conditions
- resources, equipment and materials:
  - personal protective equipment
  - equipment specified in the range of conditions
  - refrigeration
  - mechanical moulding equipment
  - mixing bowls
  - tins
  - ingredients that meet the sweet yeast product types required in the performance evidence
- specifications:
  - recipes that meet the sweet yeast product types required in the performance evidence
  - end-product quality specifications that meet the sweet yeast product types required in the performance evidence
  - food safety code regulatory requirements applicable to producing sweet yeast products
- timeframes:
  - according to the production schedule.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volumes, including Implementation Guides, are available at VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## FBPRBK3015 Schedule and produce bakery production

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package version 1.0

### Application

This unit of competency describes the skills and knowledge required to schedule and produce bakery production in a commercial baking environment.

This unit applies to individuals who apply a broad range of knowledge and skills with responsibility for their own work. This includes applying and communicating known solutions to predictable problems.

All work must be carried out to comply with workplace procedures, in accordance with State/Territory food safety, and work health and safety, regulations and legislation that apply to the workplace.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

### Pre-requisite Unit

Nil

### Unit Sector

Retail baking (RBK)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Plan production schedule	1.1 Establish production targets to meet daily production requirements

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	1.2 Reformulate master recipes to meet production targets 1.3 Estimate process timing and plan process sequence to meet production targets 1.4 Document production schedule according to workplace requirements
2. Plan production resources and processes	2.1 Identify equipment requirements, and check to confirm availability and operational readiness for production 2.2 Calculate ingredient quantities required to meet production targets 2.3 Confirm availability and quality of ingredient stocks to prepare for production
3. Implement production	3.1 Implement the production schedule to produce baked products 3.2 Monitor production against the production schedule to identify variances, and rectify to ensure production targets are met 3.3 Monitor and control food safety risks to meet food safety standards 3.4 Monitor and control workplace health and safety risks to meet workplace health and safety requirements 3.5 Assess baked products against required volumes and end-product specifications to identify faults and rectify
4. Complete production	4.1 Clean equipment and work area to meet housekeeping standards 4.2 Dispose of waste according to workplace requirements 4.3 Document scheduling adjustments and production outputs according to workplace requirements

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"> <li>Interprets key information from recipes, ingredient labels, baking equipment operating instructions and end-product specifications</li> </ul>

Skill	Description
Writing	<ul style="list-style-type: none"> <li>Prepares production schedules and completes production records using required format, language and structure</li> </ul>
Numeracy	<ul style="list-style-type: none"> <li>Identifies and comprehends ingredient quantities in recipes, dates on ingredient labels, and temperature, humidity and timer settings</li> <li>Performs calculations to establish production targets, adjust recipes using baking formulas, and allow for wastage</li> <li>Interprets measurement information to set, monitor and adjust process parameters</li> <li>Completes production records using mathematical symbols and conventions</li> </ul>
Navigate the world of work	<ul style="list-style-type: none"> <li>Complies with workplace health and safety and food safety regulatory requirements relevant to a commercial baking operation</li> <li>Follows organisational policies and procedures relevant to own work role</li> </ul>
Get the work done	<ul style="list-style-type: none"> <li>Plans, organises and implements tasks required to achieve production outcomes</li> <li>Uses problem-solving skills to analyse product and process faults and decide on appropriate action</li> </ul>

## Range of Conditions

*This section specifies different work environments and conditions that may affect performance. Essential operating conditions that may be present (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) are included.*

Daily production requirements must include:	<ul style="list-style-type: none"> <li>baked products, including breads, cakes and pastries</li> <li>production volume</li> <li>end-product specifications</li> <li>times for completion for baked products.</li> </ul>
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## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPRBK3015 Schedule and produce bakery	FDFRB3016A Plan and schedule production for retail	Redesigned unit that includes content from previous unit	No equivalent unit

production	bakery	Production of baked items added to the unit	
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## Links

Companion Volumes, including Implementation Guides, are available at VETNet -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# Assessment Requirements for FBPRBK3015 Schedule and produce bakery production

## Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package version 1.0

## Performance Evidence

An individual demonstrating competency in this unit must satisfy all of the elements and performance criteria of this unit.

There must be evidence that the individual has scheduled production for and produced 17 baked products over four shifts (Note: The scheduling of production is to be done prior to the production of the baked items), including:

- producing the following ten baked product types:
  - condensed or sandwich loaves
  - iced decorated sweet yeast bun
  - savoury bread rolls
  - laminated yeast dough as croissant product
  - whole grain flour breads
  - decorated round or square sponge cake that has a minimum diameter of 18 centimetres
  - flavoured bar cake decorated with icing
  - deposited cookie
  - cream or custard filled laminated product
  - decorated and filled choux pastry
- producing seven of the following 12 baked product types:
  - crusty loaf with no more than 2% enriching agents that is plaited, Vienna, French stick or cob
  - soft/enriched bread roll variety
  - crusty/lean bread rolls varieties
  - fruited sweet yeast product
  - savoury flat breads
  - fried basic artisan product as decorated donuts
  - wholemeal breads
  - sponge roll
  - cake slice decorated with icing or glaze

- moulded and portioned biscuit
- sweet filled pastry slice
- filled sweet non laminated pies or tarts
- mixing, processing, baking and finishing each of the following four types of baked products per shift:
  - bread
  - cake or sponge
  - cookie or biscuit
  - laminated or non laminated pastry
- monitoring operations and addressing variations to the production schedule, ensuring end-product specifications and production targets are met
- documenting and implementing four daily production schedules, including the following production scheduling considerations:
  - production timings
  - product quality
  - reformulation of recipes to suit products
  - finished dough or batter temperatures
  - mixing, processing, baking and finishing requirements for products
  - special equipment or resources required for production
  - scheduling for each stage of the bakery production process, including labour requirements
  - equipment types
- documenting production reports for each of the four shifts that include:
  - scheduling efficiencies for use of equipment and labour in relation to items produced
  - wastage efficiencies of products produced
  - improvements on the scheduling to meet performance
  - product quantities produced in relation to products scheduled
  - completion times of product
  - product quality outcomes.

Wastage that cannot be reused in production must be less than 5% of the weight of the original production schedule.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- workplace health and safety requirements applicable to scheduling and producing bakery products



- regulatory requirements for food safety applicable to producing bakery products, including temperature control and the prevention of cross-contamination in the use of dairy, meat, poultry, fish and vegetable products
- considerations relevant to scheduling bakery production, including:
  - production timings
  - product quality
  - reformulation of recipes to suit products
  - finished dough or batter temperatures
  - mixing, processing, baking and finishing requirements for products
  - special equipment or resources required for production
  - scheduling for each stage of the bakery production process
  - equipment types
- considerations relevant to reporting on production outcomes, including:
  - scheduling efficiencies, and whether completion times were met
  - wastage efficiencies of products produced
  - improvements on the scheduling to meet performance
  - product quantities produced in relation to products scheduled
  - completion times of product
  - product quality outcomes
- techniques used to regulate dough and batter maturation and proving, including:
  - temperature control
  - time
- predictable causes of production variation and their likely impact on production targets, including:
  - machine failure
  - product failure
  - calculation errors
  - estimation errors
- production processes for different product ranges, including:
  - use of specific equipment
  - use of specialised ingredients
  - additional preparation requirements
- baking industry terminology relevant to production scheduling.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - a commercial bakery or an environment that accurately represents workplace conditions
- resources, equipment and materials:

- personal protective equipment
- commercial bakery equipment and information on capacity
- industrial oven
- industrial mixer and attachments
- pastry sheeter or dough break
- refrigeration
- ingredients to meet the product types required in the performance evidence
- specifications:
  - production schedule template that includes a level of detail that accurately represents workplace conditions
  - recipe specifications for product types required in the performance evidence
  - formulae to calculate batch weight to finished product weight
  - end product quality specifications to meet the product types required in the performance evidence
- timeframes:
  - five shifts that can be continuous or staggered, consisting of one shift for upfront scheduling of production of the baked products specified in the performance evidence, and four daily shifts for the production of the baked products specified in the performance evidence.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volumes, including Implementation Guides, are available at VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## FBPRBK3016 Control and order bakery stock

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package version 1.0

### Application

This unit of competency describes the skills and knowledge required to control and order bakery stock in a commercial baking environment.

This unit applies to individuals who apply a broad range of knowledge and skills with responsibility for their own work. This includes applying and communicating known solutions to predictable problems.

All work must be carried out to comply with workplace procedures, in accordance with State/Territory food safety, and work health and safety, regulations and legislation that apply to the workplace.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

### Pre-requisite Unit

Nil

### Unit Sector

Retail baking (RBK)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Order and receive stock	1.1 Process stock orders in accordance with workplace procedures 1.2 Maintain and adjust stock re-order cycles to meet bakery

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	<p>requirements</p> <p>1.3 Check and record incoming stock against order and delivery specifications to identify discrepancies and rectify</p> <p>1.4 Check food product packaging on delivery to identify damage and rectify</p> <p>1.5 Check and record temperature on delivery of frozen and chilled food products to ensure food safety standards are met, and rectify</p> <p>1.6 Date code perishable items on delivery to maximise use</p> <p>1.7 Communicate with suppliers to ensure continuity of supply</p> <p>1.8 Monitor ordering and supply processes to identify problems and rectify</p>
2. Store stock	<p>2.1 Keep stock to maximise use and minimise waste</p> <p>2.2 Clean storage areas to meet food safe housekeeping requirements</p> <p>2.3 Inspect storage areas to identify indicators of pest contamination and rectify</p> <p>2.4 Use safe manual handling techniques to move and store stock</p> <p>2.5 Label stock with dates in accordance with workplace procedures</p> <p>2.6 Store perishable stock in sealed containers to avoid food contamination and pests</p> <p>2.7 Monitor and maintain cleanliness of stock handling and storage areas to meet housekeeping and hygiene requirements</p>
3. Maintain stock	<p>3.1 Monitor and record stock levels in accordance with workplace procedures</p> <p>3.2 Monitor stock performance to determine stock usage rate</p> <p>3.3 Rotate stock according to use-by date to maximise use and minimise waste</p> <p>3.4 Check and adjust environmental conditions to maintain quality of perishables</p> <p>3.5 Conduct temperature checks of perishables to identify storage problems, and rectify to protect perishables from spoilage</p> <p>3.6 Inspect items for pest damage and infestation and dispose of spoiled stock according to workplace procedures</p>
4. Minimise stock losses	<p>4.1 Check storage of stock to identify stock problems, and rectify to</p>

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	maintain stock quality 4.2 Identify, record and report stock losses in accordance with workplace procedures 4.3 Identify avoidable losses and determine the cause of the loss to recommend and implement solutions to prevent future avoidable losses

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"> <li>Interprets key information from order, delivery and supplier information, use-by dates, stock labels and workplace procedures</li> </ul>
Numeracy	<ul style="list-style-type: none"> <li>Identifies and comprehends measurements, including stock volumes and perishables, and stock area temperature and humidity</li> <li>Interprets safe food condition temperature range requirements for perishables and stores</li> <li>Uses thermometers to measure temperatures</li> <li>Completes stock records using mathematical symbols and conventions</li> <li>Performs calculations and estimations to determine stock levels</li> </ul>
Writing	<ul style="list-style-type: none"> <li>Completes stock records and forms using required format, language and structure</li> </ul>
Oral communication	<ul style="list-style-type: none"> <li>Uses vocabulary relevant to role and context to convey information clearly to suppliers</li> </ul>
Navigate the world of work	<ul style="list-style-type: none"> <li>Complies with workplace health and safety and food safety regulatory requirements relevant to a commercial baking operation</li> <li>Follows organisational policies and procedures relevant to own work role</li> </ul>
Get the work done	<ul style="list-style-type: none"> <li>Plans, organises and implements tasks required to achieve production outcomes</li> <li>Uses problem-solving skills to analyse product and process faults and decide on appropriate action</li> <li>Uses digital technologies to set process parameters</li> </ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPRBK3016 Control and order bakery stock	Not applicable	New unit	No equivalent unit

## Links

Companion Volumes, including Implementation Guides, are available at VETNet -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# Assessment Requirements for FBPRBK3016 Control and order bakery stock

## Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package version 1.0

## Performance Evidence

An individual demonstrating competency in this unit must satisfy all of the elements and performance criteria of this unit.

There must be evidence that the individual has controlled and ordered bakery stock, including:

- controlling and ordering three types of bakery stock, including:
  - refrigerated goods
  - frozen goods
  - dry store goods
- checking stock re-order levels
- completing stock order forms
- checking the following five requirements during receiving of stock:
  - incoming stock against order specifications
  - packaging condition
  - date codes of perishable items
  - temperature of perishables
  - ordered stock against supply arrangements, including time and delivery arrangements
- adhering to the following three requirements during storage of stock:
  - applying date labels to stock with limited shelf life
  - checking the condition of storage containers for damage
  - using safe manual handling procedures for lifting and moving ingredients
- meeting the following five requirements while maintaining the storage of stock:
  - cleaning dry goods storage areas
  - cleaning refrigerated goods storage areas
  - cleaning frozen goods storage areas
  - checking storage areas for pest contamination and identifying pest infestation indicators
  - rotating stock according to date codes on ingredients, and recording out-of-date stock

- identifying and recording the following information in the process of ordering, receiving, storing and maintaining stores:
  - spoilt stock
  - stock losses
  - the cause of stock losses.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- workplace health and safety requirements, including personal protective equipment (PPE), applicable to controlling and ordering bakery stock
- food safety procedures applicable to controlling and ordering bakery stock, including:
  - using storage containers
  - labelling and coding stock
  - humidity
  - temperature
  - ventilation
  - protection from common pests
  - protection from heat
  - protection from air conditioning
  - protection from accidental damage by people
  - protection from environmental heat
  - protection from environmental light
  - sanitary cleanliness
- types of bakery stock, including:
  - refrigerated goods
  - frozen goods
  - dry store goods
- principles of stock control, including:
  - rotation and replenishment
  - supplier lead times
  - safety stock
  - stock re-order levels
  - product life cycle and maximising the use of all stock
  - checking for usage rates of stock
  - segregating non-food items from food items that have the potential to cause contamination
- storage areas and the cleaning requirements to maintain hygienic conditions, including:
  - dry stores
  - cool rooms



- freezers
- refrigerators
- types of contamination, including:
  - microbiological
  - chemical
  - physical
- types of stock quality checks, including:
  - type
  - quantity
  - use-by date
  - damaged packaging
  - odour
  - colour
- techniques for measuring and recording temperature in bakery stores
- bakery stores terminology.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - a retail bakery or an environment that accurately represents workplace conditions
  - designated delivery area
  - designated storage area for the bakery stock types required in the performance evidence
- resources, equipment and materials:
  - personal protective equipment
  - thermometer
  - refrigerated storage
  - frozen storage
  - dry storage
  - ingredients that meet the bakery stock types required in the performance evidence
  - temperature recording charts
- specifications:
  - food safe temperature tolerances
- relationships (internal and/or external):
  - bakery suppliers
- timeframes:
  - according to work requirements.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volumes, including Implementation Guides, are available at VETNet -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## FBPRBK3017 Operate plant baking processes

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package version 1.0

### Application

This unit of competency describes the skills and knowledge required to operate interrelated bread plant baking processes in a commercial baking environment.

This unit applies to individuals who apply a broad range of knowledge and skills with responsibility for their own work. This includes applying and communicating known solutions to predictable problems.

All work must be carried out to comply with workplace procedures, in accordance with State/Territory food safety, and work health and safety, regulations and legislation that apply to the workplace.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

### Pre-requisite Unit

FBPRBK3005 Produce basic bread products.

### Unit Sector

Retail baking (RBK)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare for work	1.1 Confirm product types and volumes to schedule production 1.2 Calculate yield and adjust recipe to meet required production volumes

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	<p>1.3 Confirm work area and work practices meet food safety and workplace health and safety requirements</p> <p>1.4 Select and wear personal protective equipment according to safety requirements</p> <p>1.5 Select plant baking equipment, and load and position materials, ingredients and products to meet production requirements</p>
2. Mix bread plant dough	<p>2.1 Measure ingredient quantities to meet recipe specification</p> <p>2.2 Load ingredients into mixer in required placement</p> <p>2.3 Operate and monitor mixer to achieve bread plant dough development for product type</p> <p>2.4 Monitor bread plant dough mixing process to identify faults and rectify</p>
3. Operate bread plant divider	<p>3.1 Check condition and operation of dividing plates to prepare for operation</p> <p>3.2 Check bread plant hopper and divider plates are oiled for use</p> <p>3.3 Adjust bread plant divider settings for dough weight</p> <p>3.4 Load dough into hopper and operate bread plant divider to divide dough</p> <p>3.5 Measure dough weights to confirm divided dough meets weight specifications</p> <p>3.6 Monitor bread plant dividing process to identify faults and rectify</p>
4. Operate bread plant rounder moulder	<p>4.1 Check condition and operation of bread plant rounder moulder to prepare for operation</p> <p>4.2 Adjust bread plant rounder moulder settings for dough weight</p> <p>4.3 Use bread plant rounder moulder to mould dough</p> <p>4.4 Check dough tightness and smoothness of dough to identify faults and rectify</p> <p>4.5 Check dough positioning for depositing into intermediate prover pockets to identify faults and rectify</p> <p>4.6 Monitor bread plant moulding process to identify faults and rectify</p>
5. Operate bread plant intermediate prover	<p>5.1 Check condition, rotation and operation of bread plant intermediate prover to prepare for operation</p> <p>5.2 Adjust bread plant intermediate prover settings to match speed of</p>

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	production 5.3 Check dough pockets to identify faults and rectify 5.4 Dust as required for product type 5.5 Monitor bread plant intermediate proving process to identify faults and rectify
6. Operate bread plant final moulder	6.1 Check condition and operation of bread plant final moulder to prepare for operation 6.2 Adjust bread plant final moulder settings for dough volume 6.3 Adjust bread plant final moulder plates and blades for dough type 6.4 Monitor 4-piecing unit and adjust to achieve optimum formation in tins 6.5 Monitor bread plant final moulding process to identify faults and rectify
7. Complete bread plant dough final prove	7.1 Locate and position bread pans and oiling equipment for final moulded dough 7.2 Place final moulded dough in oiled pans to prepare for final prove 7.3 Complete final prove of bread plant bread according to product type 7.4 Monitor bread plant final proving process to identify faults and rectify
8. Bake bread plant dough	8.1 Set baking temperatures and times to prepare for baking 8.2 Visually check dough size to confirm readiness for baking 8.3 Load oven and steam as required for product type 8.4 Monitor baking to achieve baked colour and stability required for bread plant product type 8.5 Unload and de-pan bread plant products to cool 8.6 Monitor bread plant baking process to identify faults and rectify 8.7 Check bread plant products bake to identify faults and rectify
9. Complete work	9.1 Clean equipment and work area to meet housekeeping standards 9.2 Dispose of waste according to workplace requirements 9.3 Complete workplace records according to workplace requirements

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"><li>Interprets key information from recipes, ingredient labels, baking equipment operating instructions and end-product specifications</li></ul>
Writing	<ul style="list-style-type: none"><li>Prepares production schedules and completes production records using required format, language and structure</li></ul>
Numeracy	<ul style="list-style-type: none"><li>Identifies and comprehends ingredient quantities in recipes, dates on ingredient labels, and temperature, humidity and timer settings</li><li>Estimates approximate quantities, and uses equipment to measure ingredient weights and volumes, and water and dough temperatures</li><li>Divides dough into equal portions by estimated weight</li><li>Performs calculations to adjust recipes using baking formulas, and allows for wastage</li><li>Uses understanding of three-dimensional shapes to set and check end-product shapes</li><li>Interprets measurement information to set, monitor and adjust process parameters</li><li>Completes production records using mathematical symbols and conventions</li></ul>
Navigate the world of work	<ul style="list-style-type: none"><li>Complies with workplace health and safety and food safety regulatory requirements relevant to a commercial baking operation</li><li>Follows organisational policies and procedures relevant to own work role</li></ul>
Get the work done	<ul style="list-style-type: none"><li>Plans, organises and implements tasks required to achieve production outcomes</li><li>Uses problem-solving skills to analyse product and process faults and decide on appropriate action</li></ul>

## Range of Conditions

*This section specifies different work environments and conditions that may affect performance. Essential operating conditions that may be present (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) are included.*

Plant baking equipment must include:	<ul style="list-style-type: none"><li>• equipment, including:<ul style="list-style-type: none"><li>• industrial oven</li><li>• industrial mixer and attachments</li><li>• bread plant dough divider</li><li>• bread plant dough rounder moulder</li><li>• bread plant intermediate prover</li><li>• bread plant final moulder</li><li>• mechanical bread slicer</li></ul></li><li>• equipment accessories, including:<ul style="list-style-type: none"><li>• divider blades</li><li>• intermediate prover pockets</li><li>• moulder plates</li></ul></li><li>• ancillary equipment, including:<ul style="list-style-type: none"><li>• dry ingredients storage containers</li><li>• strapped baking tins</li><li>• strapped baking tin lids</li><li>• ingredient storage bins</li></ul></li><li>• tools and utensils, including:<ul style="list-style-type: none"><li>• thermometer</li><li>• timer</li><li>• dough knives</li><li>• dough scrapers.</li></ul></li></ul>
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## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPRBK3017 Operate plant baking processes	Not applicable	New unit	Not equivalent

## Links

Companion Volumes, including Implementation Guides, are available at VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# Assessment Requirements for FBPRBK3017 Operate plant baking processes

## Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package version 1.0

## Performance Evidence

An individual demonstrating competency in this unit must satisfy all of the elements and performance criteria of this unit.

There must be evidence that the individual has operated plant baking processes to produce bread plant products, including:

- producing the following four bread plant dough types:
  - white bread
  - brown or wholemeal bread
  - grain bread
  - enriched sweet yeast bread
- producing the following five bread products:
  - crusty/lean loaf – plaited, Vienna, cob or stick
  - enriched sweet yeast bread loaf as high top or condensed loaves
  - enriched bread loaves as condensed or high top
  - brown or wholemeal bread loaves as high tops, condensed, cobs or Viennas
  - grain bread loaves as high tops, condensed, cobs or Viennas
- using the following two mixing processes:
  - mixing instant/no time doughs
  - mixing ferment
- using the following four bread plant processes:
  - bread plant dough divider
  - bread plant dough rounder moulder
  - bread plant intermediate prover
  - bread plant final moulder
- using the following three finishing techniques:
  - seeding
  - steaming



- scoring
- using lids to condense loaves
- adjusting bread plant equipment settings to meet process output requirements
- inspecting equipment condition to identify and confirm that equipment is clean and configured for processing requirements
- positioning sensors or controls
- ensuring safety guards are in place and operational
- loading and positioning materials in bread plant equipment
- monitoring material flow and work-in-progress through the system
- selecting tins, bread boards, baskets or trays appropriate for dough piece scale weight, volume and size
- selecting, using and cleaning the baking equipment listed in the range of conditions, including controlling electrical hazards applicable to cleaning
- documenting the production schedule, including the following nine considerations:
  - timings
  - volume requirements
  - product processing requirements
  - recipe reformulation to minimise waste
  - bread plant dough divider setting for product requirement
  - bread plant dough rounder moulder setting for product requirement
  - bread plant intermediate prover setting for product requirement
  - bread plant final moulder setting for product requirement
  - bake parameters for required products.

Wastage that cannot be reused in production must be less than 5% of the weight of the original production schedule.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- workplace health and safety requirements, including personal protective equipment (PPE), applicable to operating plant baking processes
- safe use and cleaning of baking equipment listed in the range of conditions, including electrical hazards
- food safety requirements applicable to operating plant baking processes
- considerations for production scheduling of plant baking processes, including:
  - timings
  - volume requirements
  - product processing requirements
  - recipe reformulation to minimise waste

- bread plant dough divider setting for product requirement
- bread plant dough rounder moulder setting for product requirement
- bread plant intermediate prover setting for product requirement
- bread plant final moulder setting for product requirement
- bake parameters for required products
- functions and characteristics of ingredients used in bread plant production, including food grade equipment oils in plant bread baking
- purpose and basic principles of the production system, including the flow of product from plant divider to plant rounder moulder to plant intermediate prover to plant final moulder
- basic operating principles of equipment and related accessories, including:
  - equipment adjustment points
  - purpose and status of guards
  - range, location and alignment requirements of sensors and related feedback instruments
  - single and multi-pocket dividers
  - spray panning units
  - de-panner units
  - conveyors
- operating capacities of equipment used in the system, including:
  - output capacity of mixer
  - output capacity of divider
  - total time through bread plant process from mixer to final plant moulder
  - principles of the bread plant baking production processes, including:
    - mixing
    - bread plant divider
    - bread plant rounder moulder
    - bread plant intermediate prover
    - bread plant final moulder
- techniques for calculating yields, adjusting recipes and measuring ingredients
- causes and corrective action for predictable and sometimes unpredictable bread plant problems, including:
  - machinery failure
  - environmental factors, including heat, humidity and cold
  - poor quality ingredients
- techniques for disposing of waste after bread plant production
- bread plant production terminology.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:

- a commercial bakery or an environment that accurately represents workplace conditions
- resources, equipment and materials:
  - personal protective equipment
  - equipment specified in the range of conditions, and related accessories and services
  - ingredients that meet the bread plant products types required in the performance evidence
- specifications:
  - recipes that meet the bread plant product types required in the performance evidence
  - end-product quality specifications that meet the bread plant product types required in the performance evidence
- timeframes:
  - according to the production schedule.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volumes, including Implementation Guides, are available at VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## FBPRBK3018 Produce basic artisan products

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package version 1.0

### Application

This unit of competency describes the skills and knowledge required to produce basic artisan products in a commercial baking environment. Basic artisan products include European basic artisan products, cultural basic artisan products, laminated basic artisan products, fried basic artisan products, highly enriched basic artisan products and festive occasion basic artisan products.

This unit applies to individuals who apply a broad range of specialised knowledge and skills with responsibility for their own work. This includes applying and communicating non-routine technical solutions to predictable and unpredictable problems.

All work must be carried out to comply with workplace procedures, in accordance with State/Territory food safety, and work health and safety, regulations and legislation that apply to the workplace.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

### Pre-requisite Unit

Nil

### Unit Sector

Retail baking (RBK)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare for work	1.1 Confirm product types and volumes to schedule production 1.2 Calculate yield and adjust recipe to meet required production volumes 1.3 Confirm work area and work practices meet food safety and workplace health and safety requirements 1.4 Select and wear personal protective equipment according to safety requirements 1.5 Select basic artisan baking equipment and check to confirm readiness for use 1.6 Select ingredients and check to confirm quality and quantity
2. Mix basic artisan doughs	2.1 Measure ingredient quantities to meet recipe specifications 2.2 Load ingredients into mixer in required ingredient placement 2.3 Operate and monitor mixer to achieve basic artisan dough development for product type 2.4 Check mixed basic artisan dough to identify faults and rectify
3. Process basic artisan dough	3.1 Divide, scale, mould and intermediate prove basic artisan dough to meet required end-product shape and baked weight 3.2 Final mould and place on baking surfaces for final prove 3.3 Laminate basic artisan dough with laminating fat as required for product type 3.4 Retard basic artisan dough as required for product type 3.5 Final prove basic artisan dough as required for product type 3.6 Check processed basic artisan dough to identify faults and rectify
4. Pre-bake finish basic artisan products	4.1 Prepare pre-bake finishing mediums to recipe specification 4.2 Pre-bake finish basic artisan products to meet end-product specification 4.3 Check pre-bake finished basic artisan products to identify faults and rectify
5. Fry basic artisan products	5.1 Set frying temperatures and times to prepare for frying 5.2 Visually check basic artisan dough size to confirm readiness for frying

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	5.3 Load fryer and monitor frying to maintain fryer temperatures 5.4 Unload basic artisan fried products to cool 5.5 Check fried basic artisan products to identify faults and rectify
6. Bake basic artisan products	6.1 Set baking temperatures and times to prepare for baking 6.2 Visually check dough size to confirm readiness for baking, and load oven as required for product type 6.3 Monitor baking to achieve baked colour and stability required for basic artisan product type 6.4 Unload, de-pan and cool to meet basic artisan product type 6.5 Check basic artisan product to identify faults and rectify
7. Post-bake/fry finish basic artisan products	7.1 Prepare post-bake finishing mediums to meet recipe specifications 7.2 Post-bake finish baked and fried basic artisan products to meet end-product specification 7.3 Check post-baked finished basic artisan products to identify faults and rectify 7.4 Prepare and transfer basic artisan products for presentation and storage according to packaging and food safety requirements
8. Complete work	8.1 Clean equipment and work area to meet housekeeping standards 8.2 Dispose of waste according to workplace requirements 8.3 Complete workplace records according to workplace requirements

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"> <li>Interprets key information from recipes, ingredient labels, baking equipment operating instructions and end-product specifications</li> </ul>
Writing	<ul style="list-style-type: none"> <li>Prepares production schedules and completes production records using required format, language and structure</li> </ul>

Skill	Description
Numeracy	<ul style="list-style-type: none"> <li>Identifies and comprehends ingredient quantities in recipes, dates on ingredient labels, and temperature, humidity and timer settings</li> <li>Estimates approximate quantities, and uses equipment to measure ingredient weights and volumes, water and dough temperatures, and dough and product dimensions</li> <li>Divides dough into equal portions by estimated weight</li> <li>Performs calculations to adjust recipes using baking formulas, and allows for wastage</li> <li>Uses understanding of three-dimensional shapes to mould dough shapes and check end-product shapes</li> <li>Interprets measurement information to set, monitor and adjust process parameters</li> <li>Completes production records using mathematical symbols and conventions</li> </ul>
Navigate the world of work	<ul style="list-style-type: none"> <li>Complies with workplace health and safety and food safety regulatory requirements relevant to a commercial baking operation</li> <li>Follows organisational policies and procedures relevant to own work role</li> </ul>
Get the work done	<ul style="list-style-type: none"> <li>Plans, organises and implements tasks required to achieve production outcomes</li> <li>Uses problem-solving skills to analyse product and process faults and decide on appropriate action</li> </ul>

## Range of Conditions

*This section specifies different work environments and conditions that may affect performance. Essential operating conditions that may be present (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) are included.*

Basic artisan baking equipment must include:	<ul style="list-style-type: none"> <li>equipment, including:             <ul style="list-style-type: none"> <li>industrial oven</li> <li>industrial mixer and attachments</li> <li>pastry sheeter, dough break or rolling pin</li> </ul> </li> <li>ancillary equipment, including:             <ul style="list-style-type: none"> <li>oven baking trays</li> <li>cooling wires</li> <li>dough and pastry benches</li> </ul> </li> <li>tools and utensils, including:             <ul style="list-style-type: none"> <li>rolling pins</li> </ul> </li> </ul>
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	<ul style="list-style-type: none"><li>• oven gloves</li><li>• plastic and metal scrapers</li><li>• containers used to store fillings</li><li>• bowls and measuring jugs.</li></ul>
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## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPRBK3018 Produce basic artisan products	Not applicable	New unit	No equivalent unit

## Links

Companion Volumes, including Implementation Guides, are available at VETNet -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>



# Assessment Requirements for FBPRBK3018 Produce basic artisan products

## Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package version 1.0

## Performance Evidence

An individual demonstrating competency in this unit must satisfy all of the elements and performance criteria of this unit.

There must be evidence that the individual has produced basic artisan products according to a production schedule, including:

- producing the following seven basic artisan products:
  - laminated yeast dough as a croissant product
  - sweet laminated yeast dough as a danish product
  - basic artisan product as a display plaque
  - festive basic artisan product
  - lean basic artisan product as rolls or loaves
  - fried basic artisan product as decorated donuts
  - highly enriched basic artisan product
- processing one of the above basic artisan bread products as a retarded product
- mixing and using the following three doughs:
  - instant dough/scratch mix/no time dough
  - ferment
  - salted/dead display dough
- using the following three moulding techniques:
  - hand moulding
  - machine moulding
  - laminating yeast dough
- using the following two finishing techniques:
  - pre-bake finishing using pastes, washes or glazes
  - using creams, icings, chocolate or fondant to finish baked or fried product
- selecting, using and cleaning the basic artisan baking equipment listed in the range of conditions, including controlling electrical hazards applicable to cleaning

- selecting and using tins and trays appropriate for dough piece scale, weight, volume and size
- documenting the production schedule, including the following six considerations:
  - timings
  - volume requirements
  - product processing requirements
  - recipe reformulation to minimise waste
  - finishing requirements for basic artisan product
  - baked parameters for basic artisan product.

Wastage that cannot be reused in production must be less than 5% of the weight of the original production schedule.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- workplace health and safety requirements, including personal protective equipment, applicable to producing basic artisan products
- safe use and cleaning of baking equipment listed in the range of conditions, including electrical hazards
- regulatory requirements for food safety applicable to producing basic artisan products
- considerations for production scheduling, including:
  - timings
  - volume requirements
  - product processing requirements
  - recipe reformulation to minimise waste
  - finishing requirements for basic artisan product
  - baked parameters for basic artisan product
- functions and characteristics of ingredients used in basic artisan production, including:
  - flour types
  - salt
  - yeast
  - fats
  - flavours and spices
  - fondant
  - chocolate
  - icing and glazes
- processes for making:
  - instant dough/scratch mix/no time dough

- ferments
- display doughs
- principles of retarding basic artisan products, including:
  - mixing
  - dough temperatures
  - cooling retarded products
  - warm phase with retarded products
- mixing processes and gluten development for:
  - highly enriched doughs
  - laminated doughs
  - display doughs
- types and use of pre-baked finishing for basic artisan products
- types and use of post-baked finishing for basic artisan products
- techniques for shaping basic artisan products, including:
  - crescent
  - plaque
  - rolls
  - loaf
- storage and shelf life of basic artisan products, including:
  - croissants – laminated
  - danish – laminated
  - lean crusty doughs
  - basic artisan display plaques
  - enriched basic artisan products
  - fried basic artisan products
- processing techniques for laminated doughs, including:
  - English method laminating
  - French method laminating
  - using lean and enriched doughs for laminating
  - selecting and using fats in lean and enriched laminated doughs
  - mixing of laminated doughs
  - proving and baking of laminated doughs
- processing of dough for display purposes, including:
  - using display dough
  - baking of display doughs
  - colouring of display doughs
- techniques for calculating yields, adjusting recipes and measuring ingredients
- purpose and functions of basic artisan baking and frying processes, including:
  - oven temperatures
  - baking times

- proving times and temperatures
- dry proving
- frying temperatures
- causes of and corrective action for predictable and sometimes unpredictable basic artisan production problems, including:
  - machinery failure
  - environmental factors, including heat, humidity and cold
  - poor quality ingredients
  - poor oil quality in frying
- techniques for disposing of waste from basic artisan product production
- basic artisan product production terminology.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - a commercial bakery or an environment that accurately represents workplace conditions
- resources, equipment and materials:
  - personal protective equipment
  - equipment specified in the range of conditions
  - deep fryer
  - tins
  - trays
  - ingredients that meet the basic artisan product types required in the performance evidence
- specifications:
  - recipes that meet the basic artisan product types required in the performance evidence
  - end-product quality specifications to meet the basic artisan product types required in the performance evidence
  - food safety code regulatory requirements applicable to producing basic artisan products
- timeframes:
  - according to the production schedule.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volumes, including Implementation Guides, are available at VETNet -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## FBPRBK4001 Produce artisan bread products

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package version 1.0

### Application

This unit of competency describes the skills and knowledge required to produce artisan bread products in a commercial baking environment.

This unit applies to individuals who apply a broad range of specialised knowledge and skills with responsibility for their own work. This includes applying and communicating non-routine technical solutions to predictable and unpredictable problems.

All work must be carried out to comply with workplace procedures, in accordance with State/Territory food safety, and work health and safety, regulations and legislation that apply to the workplace.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

### Pre-requisite Unit

FBPRBK3005 Produce basic bread products.

### Unit Sector

Retail baking (RBK)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare for work	1.1 Confirm product types and volumes to schedule production 1.2 Calculate yield and adjust recipe to meet required production volumes

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	<p>1.3 Confirm work area and work practices meet food safety and workplace health and safety requirements</p> <p>1.4 Select and wear personal protective equipment according to safety requirements</p> <p>1.5 Select artisan bread baking equipment and check to confirm readiness for use</p> <p>1.6 Select ingredients and check to confirm quality and quantity</p>
2. Prepare artisan bread fillings	<p>2.1 Measure artisan filling ingredient quantities and prepare to meet recipe specification</p> <p>2.2 Check artisan fillings to identify faults and rectify</p> <p>2.3 Store artisan fillings according to food safety requirements</p>
3. Mix artisan ferments	<p>3.1 Measure artisan ferment ingredient quantities to meet recipe specifications</p> <p>3.2 Load ingredients into mixer in required ingredient placement</p> <p>3.3 Operate and monitor mixer to achieve artisan bread dough development for product type</p> <p>3.4 Check artisan ferment to identify faults and rectify</p> <p>3.5 Store artisan ferments according to food safety and product requirements</p>
4. Mix artisan bread dough	<p>4.1 Measure artisan bread dough ingredient quantities to meet recipe specifications</p> <p>4.2 Load ingredients into mixer in required ingredient placement</p> <p>4.3 Operate and monitor mixer to achieve artisan bread dough development for product type</p> <p>4.4 Add fillings as required to meet artisan bread product type</p> <p>4.5 Check artisan dough to identify faults and rectify</p>
5. Process artisan bread dough	<p>5.1 Divide, scale and mould dough to meet end-product shapes and baked weights</p> <p>5.2 Fold in fillings as required to meet product type</p> <p>5.3 Rest and fold artisan dough as required for product type</p> <p>5.4 Check artisan dough to confirm strength and tenacity</p> <p>5.5 Scale artisan dough for intermediate prove</p>

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	5.6 Final mould artisan dough and place on baking or proving surfaces for final prove 5.7 Retard artisan dough as required for product type 5.8 Check processed artisan dough to identify faults and rectify
6. Pre-bake finish artisan bread products	6.1 Prepare pre-bake finishing mediums to meet recipe specifications 6.2 Pre-bake finish artisan products to meet end-product specifications 6.3 Check pre-bake finished artisan products to identify faults and rectify
7. Bake artisan bread products	7.1 Set baking temperatures and times to prepare for baking 7.2 Visually check artisan dough size to confirm readiness for baking 7.3 Load oven and steam artisan bread as required for product type 7.4 Monitor baking to achieve baked colour and stability required for artisan bread product type 7.5 Unload and de-pan artisan baked products to cool 7.6 Check artisan bread product to identify faults and rectify 7.7 Prepare and transfer products for presentation and storage according to packaging and food safety requirements
8. Complete work	8.1 Clean equipment and work area to meet housekeeping standards 8.2 Dispose of waste according to workplace requirements 8.3 Complete workplace records according to workplace requirements

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"> <li>Interprets key information from recipes, ingredient labels, baking equipment operating instructions, and end-product specifications</li> </ul>
Writing	<ul style="list-style-type: none"> <li>Prepares production schedules and completes production records using required format, language and structure</li> </ul>



Skill	Description
Numeracy	<ul style="list-style-type: none"> <li>Identifies and comprehends ingredient quantities in recipes, dates on ingredient labels, and temperature, humidity and timer settings</li> <li>Estimates approximate quantities, and uses equipment to measure ingredient weights and volumes, water and dough temperatures, and dough and product dimensions</li> <li>Divides dough into equal portions by estimated weight</li> <li>Performs calculations to adjust recipes using baking formulas, and allows for wastage</li> <li>Uses understanding of three-dimensional shapes to mould dough shapes and check end-product shapes</li> <li>Interprets measurement information to set, monitor and adjust process parameters</li> <li>Completes production records using mathematical symbols and conventions</li> </ul>
Navigate the world of work	<ul style="list-style-type: none"> <li>Complies with workplace health and safety and food safety regulatory requirements relevant to a commercial baking operation</li> <li>Follows organisational policies and procedures relevant to own work role</li> </ul>
Get the work done	<ul style="list-style-type: none"> <li>Plans, organises and implements tasks required to achieve production outcomes</li> <li>Uses problem-solving skills to analyse product and process faults and decide on appropriate action</li> </ul>

## Range of Conditions

*This section specifies different work environments and conditions that may affect performance. Essential operating conditions that may be present (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) are included.*

Artisan bread baking equipment must include:	<ul style="list-style-type: none"> <li>equipment, including: <ul style="list-style-type: none"> <li>industrial oven</li> <li>industrial mixer and attachments</li> <li>cool room or refrigerator</li> </ul> </li> <li>equipment accessories, including: <ul style="list-style-type: none"> <li>oven setter boards, trays or belts</li> <li>cool room or refrigerator shelving</li> </ul> </li> <li>ancillary equipment, including: <ul style="list-style-type: none"> <li>dough proving tubs</li> <li>mixing bowls</li> </ul> </li> </ul>
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	<ul style="list-style-type: none"><li>• proving boards/trays</li><li>• proving racks</li><li>• dry ingredient storage containers</li><li>• cutting boards</li><li>• tools and utensils, including:<ul style="list-style-type: none"><li>• bread knives</li><li>• scoring knives</li><li>• food processing knives</li><li>• dough scrapers</li><li>• spray bottles</li><li>• sieves.</li></ul></li></ul>
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## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPRBK4001 Produce artisan bread products	FDFRB3013A Produce artisan breads	Redesigned unit that includes content from previous unit  Code changed to reflect AQF alignment	No equivalent unit
	FDFRB4004A Produce sourdough products	Redesigned unit that includes content from previous unit	No equivalent unit

## Links

Companion Volumes, including Implementation Guides, are available at VETNet -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# Assessment Requirements for FBPRBK4001 Produce artisan bread products

## Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package version 1.0

## Performance Evidence

An individual demonstrating competency in this unit must satisfy all of the elements and performance criteria of this unit.

There must be evidence that the individual has produced artisan bread products according to a production schedule, including:

- producing the following four artisan bread dough types:
  - sour dough pre-ferment dough
  - non sour pre-ferment dough
  - bulk ferment dough
  - sponge and dough
- using the following two sour types to produce the sour dough:
  - soft levain sour/poolish
  - stiff levain sour/biga
- using the following three mixing techniques:
  - low dough development
  - medium dough development
  - intensive dough development
- producing the following seven product shapes:
  - batard (Vienna)
  - bolais (round)
  - freeform
  - baguette
  - pan bread
  - flat bread
  - bread roll
- preparing and adding the following two filling types:
  - fruit filling

- savoury filling
- incorporating fillings using the following two methods:
  - including filling in artisan dough during mixing process
  - folding filling into artisan dough during folding process
- using the following three finishing techniques:
  - decorative dusting
  - decorative scoring
  - glazing
- selecting, using and cleaning the bread baking equipment listed in the range of conditions, including controlling electrical hazards applicable to cleaning
- documenting the production schedule, including the following five considerations:
  - timings
  - volume requirements
  - product processing requirements
  - recipe reformulation to minimise waste
  - baked parameters for artisan bread products.

Wastage that cannot be reused in production must be less than 5% of the weight of the original production schedule.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- workplace health and safety requirements, including personal protective equipment, applicable to producing artisan bread products
- safe use and cleaning of bread baking equipment listed in the range of conditions, including electrical hazards
- regulatory requirements for food safety applicable to producing artisan bread products, including temperature control and prevention of cross-contamination in the use of dairy products, meat, poultry, fish products and vegetable products
- techniques and considerations for production scheduling, including:
  - timings
  - volume requirements
  - product processing requirements
  - recipe reformulation to minimise waste
  - baked parameters for artisan bread products
- functions and characteristics of ingredients used in artisan bread production, including:
  - artisan flour varieties
  - yeast used in artisan bread products
- preparing sours, including:

- source and characteristics of sours
- techniques for developing sours
- techniques for using sour
- techniques for feeding sours
- matching of sours to artisan bread product types
- artisan production processes, including:
  - mixing of artisan ferments
  - types of artisan ferments
  - artisan folding processes
  - artisan proving processes
  - artisan baking processes
- artisan mixing techniques and mixing outcome requirements for:
  - low dough development
  - medium dough development
  - intensive dough development
- product types, processes and characteristics of artisan product types, including:
  - batard (Vienna)
  - bolais (round)
  - freeform
  - baguette
  - flat bread
- types of fillings used in artisan breads:
  - fruit filling
  - savoury filling
- methods of incorporating fillings, including:
  - including filling in artisan dough during mixing
  - folding filling into artisan dough during folding process
- techniques and requirements for finishing, including:
  - decorative dusting
  - decorative scoring
  - glazing
- impacts on production of different artisan bread products, including:
  - length and duration of ferments
  - refrigeration space for processing artisan doughs
  - oven capacity and length of bake
  - scheduling different artisan ferment varieties to match production timing
- required characteristics of artisan bread products, including:
  - aroma
  - flavour
  - crumb structure

- strength and tenacity
- causes and corrective action for predictable and sometimes unpredictable bread production problems, including:
  - machinery failure
  - environmental factors, including heat, humidity and cold
  - poor quality ingredients
- techniques for disposing of waste from artisan bread production
- artisan bread production terminology.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - a commercial bakery or an environment that accurately represents workplace conditions
- resources, equipment and materials:
  - personal protective equipment
  - equipment specified in the range of conditions
  - trays
  - ingredients that meet the artisan bread product types required in the performance evidence
- specifications:
  - recipes that meet the artisan bread product types required in the performance evidence
  - end-product quality specifications to meet the artisan bread product types required in the performance evidence
  - food safety code regulatory requirements applicable to producing artisan bread products
- timeframes:
  - according to the production schedule.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volumes, including Implementation Guides, are available at VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## FBPRBK4002 Develop advanced artisan bread methods

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package version 1.0

### Application

This unit of competency describes the skills and knowledge required to develop advanced artisan bread methods in a commercial baking environment.

This unit applies to individuals who apply a broad range of specialised knowledge and skills with responsibility for their own work. This includes applying and communicating non-routine technical solutions to predictable and unpredictable problems.

All work must be carried out to comply with workplace procedures, in accordance with State/Territory food safety, and work health and safety, regulations and legislation that apply to the workplace.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

### Pre-requisite Unit

FBPRBK4001 Produce artisan bread products.

Note the following chain of prerequisites that also applies to this unit.

Unit of competency	Prerequisite requirement
FBPRBK4001 Produce artisan bread products	FBPRBK3005 Produce basic bread products

### Unit Sector

Retail baking (RBK)

## Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Conduct advanced artisan bread product experiments	1.1 Research and analyse local and international advanced artisan bread making trends to extend knowledge of artisan dough rheology 1.2 Apply knowledge of advanced artisan bread making to inform advanced artisan bread making ideas 1.3 Adapt recipes and processes based on advanced artisan bread making ideas 1.4 Use experimentation to trial and refine advanced artisan bread ideas and achieve desired advanced artisan bread product outcomes 1.5 Produce advanced artisan bread products using recipes and baking processes based on research and experimentation 1.6 Document trial outcomes, recipes and process and product specifications according to workplace procedures
2. Apply advanced finishing methods to bread	2.1 Research and analyse advanced finishing trends to extend knowledge of advanced finishing methods 2.2 Apply knowledge of advanced finishing methods to inform advanced finishing design ideas 2.3 Finish advanced artisan bread products using advanced design methods of moulding and scoring
3. Apply sensory analysis to assess advanced bread products	3.1 Prepare advanced bread product evaluation samples for sensory analysis testing 3.2 Undertake sensory analysis of bread samples to evaluate bread properties 3.3 Document sensory analysis findings for advanced bread product according to workplace requirements
4. Provide advice on food and beverage compatibility	4.1 Assess the compatibility of advanced artisan breads with food items and beverages 4.2 Develop informed opinions to support the selection of compatible food and beverage items with flavour profiles of advanced artisan bread products 4.3 Document food and beverage matching to support advanced artisan bread products according to workplace procedures



## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Learning	<ul style="list-style-type: none"> <li>Undertakes independent research and experimentation, and reflects on performance to build own knowledge and skills of advanced artisan bread making methods</li> </ul>
Reading	<ul style="list-style-type: none"> <li>Sources, interprets and analyses advanced artisan bread making information from a range of technical baking industry texts</li> </ul>
Writing	<ul style="list-style-type: none"> <li>Prepares recipes, trial records, process and product specifications, sensory analysis outcomes and compatibility documentation using structure, technical language and format appropriate to purpose</li> </ul>
Numeracy	<ul style="list-style-type: none"> <li>Extracts and interprets mathematical information embedded in technical baking industry texts</li> <li>Performs calculations and uses baking product formulas to interpret, adapt and adjust artisan bread recipes</li> <li>Uses mathematical symbols and conventions relevant to the baking industry to document trial outcomes, recipes, and process and product specifications</li> </ul>
Navigate the world of work	<ul style="list-style-type: none"> <li>Works independently to keep abreast of advanced artisan bread making trends</li> </ul>
Interact with others	<ul style="list-style-type: none"> <li>Recognises the importance of consulting with others when formulating advice on food and beverage pairing</li> </ul>
Get the work done	<ul style="list-style-type: none"> <li>Uses problem-solving skills to analyse and evaluate advanced artisan bread making ideas and trial outcomes and decide on appropriate action</li> <li>Takes responsibility for planning, organising and implementing tasks required to achieve required outcomes</li> </ul>

## Range of Conditions

*This section specifies different work environments and conditions that may affect performance. Essential operating conditions that may be present (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) are included.*

Advanced finishing methods must include:	<ul style="list-style-type: none"> <li>advanced stencilling using speciality stencils</li> <li>oiled dough skins</li> <li>advanced scoring</li> </ul>
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	<ul style="list-style-type: none"><li>• advanced moulding.</li></ul>
Bread properties must include:	<ul style="list-style-type: none"><li>• flavour profiles</li><li>• crumb and crust textures</li><li>• internal and external appearance</li><li>• aromas</li><li>• baked condition.</li></ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPRBK4002 Develop advanced artisan bread methods	Not applicable	New unit	No equivalent unit

## Links

Companion Volumes, including Implementation Guides, are available at VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# Assessment Requirements for FBPRBK4002 Develop advanced artisan bread methods

## Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package version 1.0

## Performance Evidence

An individual demonstrating competency in this unit must satisfy all of the elements and performance criteria of this unit.

There must be evidence that the individual has developed advanced artisan bread making methods to produce three different artisan bread varieties, where the advanced methods include:

- using the following three flours, including:
  - rye flour
  - whole wheat flour
  - speciality flour
- producing one of the artisan bread varieties with a total hydration of 80–90% on total flour weight
- producing the following three types of advanced artisan bread products incorporating an extended fermentation period, a pre-ferment dough and excluding bread improvers:
  - Italian loaf
  - French loaf
  - German loaf
- preparing and developing the following three flavours in the doughs:
  - a perpetual sour
  - a creative gourmet fruit
  - a creative gourmet savoury
- creating and using two advanced specialty artisan bread stencils:
  - logo stencil
  - artistic stencil
- applying oiled dough skins to advanced artisan bread doughs as an advanced baked finishing method
- applying advanced decorative cutting and scoring.

The assessment of the advanced artisan bread products listed above must include:

- conducting a sensory analysis of the following:
  - flavour profiles
  - crumb and crust textures
  - internal and external appearance
  - aromas
  - baked condition
- preparing a report on sensory analysis documenting:
  - sour flavours in advanced artisan breads
  - prepared creative gourmet flavoured advanced artisan breads.

The advice provided on food and beverage compatibility of the products listed above must include:

- the following advanced artisan bread products:
  - prepared perpetual sour bread
  - prepared creative gourmet sweet bread
  - prepared creative gourmet savoury bread
- food matching against two of the following four food groups:
  - meat
  - dairy
  - fruit or jams or jellies
  - pates or dips or spreads
- food matching against two of the following three beverage groups:
  - white or red wine
  - beer or cider
  - non-alcoholic beverage.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- advanced artisan bread product types, including extended fermentation periods and pre-ferments for:
  - Italian loaf
  - French loaf
  - German loaf
- techniques for preparing and developing the flavours into the artisan doughs, including:
  - perpetual sour
  - creative gourmet sweet flavour
  - creative gourmet savoury flavour

- changes in advanced artisan bread products when there are high hydration rates of 80–90% based on total flour weight
- types of specialty bread stencils
- techniques for designing, cutting and using specialty bread stencils on advanced artisan bread products
- techniques for producing oiled dough skins
- advanced decorative scoring on advanced artisan breads, including scoring to control direction of tear and scoring to create decorative designs
- types and varieties of advanced moulding relevant to advanced artisan breads
- factors affecting sensory analysis when applying the five senses to baked products, including:
  - sight, including lighting effect, crumb colour and baked colour
  - smell, including effect of fermentation time and sours on aroma and acidic aromas
  - taste, including effect of temperature, sour quality, hydration level and fermentation time on flavour profile
  - touch, including effect of processing methods, recipes and baking on softness in crumb and crust
  - hearing, including effect of baking time and dehydration on tapped sound
- factors affecting sour variations in advanced artisan breads
- principles of food and beverage pairing, including:
  - texture
  - flavour profiles, including acidity, sweetness and bitterness
  - weight of food
  - body of wine
  - complement and contrast
- how the flavours and textures of the following complementary food products can affect the flavours and textures of advanced artisan breads:
  - meat
  - dairy
  - fruit or jams or jellies
  - pates or dips or spreads
- how the characteristics and flavours of the following beverages can affect the flavours and texture of advanced artisan breads:
  - white or red wine
  - beer or cider
  - non-alcoholic beverage
- advanced artisan bread making terminology
- advanced finishing terminology
- food and beverage pairing terminology.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - a commercial bakery or an environment that accurately represents workplace conditions
- resources, equipment and materials:
  - industrial mixer and attachments
  - industrial oven
  - personal protective equipment
  - ingredients that meet advanced artisan bread product requirements
- specifications:
  - artisan bread recipes to adapt
- timeframes:
  - according to work requirements.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volumes, including Implementation Guides, are available at VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## FBPRBK4003 Produce gateaux, tortes and entremets

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package version 1.0

### Application

This unit of competency describes the skills and knowledge required to produce and finish gateaux, tortes and entremets in a commercial baking or hospitality environment.

This unit applies to individuals who apply a broad range of knowledge and skills with responsibility for their own work. This includes applying and communicating known solutions to predictable problems.

All work must be carried out to comply with workplace procedures, in accordance with State/Territory food safety, and work health and safety, regulations and legislation that apply to the workplace.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

### Pre-requisite Unit

FBPRBK3010 Produce cake and pudding products.

### Unit Sector

Retail baking (RBK)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare for work	1.1 Confirm product types and volumes to schedule production 1.2 Calculate yield and adjust recipe to meet production volumes

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	<p>1.3 Confirm work area and work practices meet food safety and workplace health and safety requirements</p> <p>1.4 Select and wear personal protective equipment according to safety requirements</p> <p>1.5 Select baking equipment for gateaux, tortes and entremets and check to confirm readiness for use</p> <p>1.6 Select ingredients and check to confirm quality and quantity</p> <p>1.7 Prepare tins, trays and pans to match type of gateaux, tortes or entremets</p>
2. Prepare bases for gateaux, tortes and entremets	<p>2.1 Measure ingredient quantities to meet recipe specifications</p> <p>2.2 Process ingredients to mix bases for gateaux, tortes and entremets</p> <p>2.3 Set and load oven and monitor baking to bake bases</p> <p>2.4 Check base bake to identify faults and rectify</p> <p>2.5 Prepare and transfer bases for storage in accordance with food safety requirements</p>
3. Prepare fillings and finishes for gateaux, tortes and entremets	<p>3.1 Measure filling and finishing ingredient quantities to meet recipe specifications</p> <p>3.2 Process ingredients to make fillings and finishes for gateaux, tortes and entremets</p> <p>3.3 Check fillings and finishes for gateaux, tortes and entremets to identify faults and rectify</p> <p>3.4 Prepare and transfer fillings and finishes for storage according to food safety requirements</p>
4. Assemble gateaux, tortes and entremets	<p>4.1 Prepare bases for assembly to meet product type</p> <p>4.2 Combine fillings and bases to assemble gateaux, tortes and entremets as required for product type</p> <p>4.3 Check assembly for gateaux, tortes and entremets to identify faults and rectify</p>
5. Finish gateaux, tortes and entremets	<p>5.1 Apply finishes to gateaux, tortes and entremets as required for product type</p> <p>5.2 Apply garnishes to finish gateaux, tortes and entremets as required for product type</p> <p>5.3 Check finishing for gateaux, tortes and entremets to identify faults</p>



Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	and rectify 5.4 Prepare and transfer finished gateaux, tortes and entremets for presentation and storage according to packaging and food safety requirements
6. Complete work	6.1 Clean equipment and work area to meet housekeeping standards 6.2 Dispose of waste according to workplace requirements 6.3 Complete workplace records according to workplace requirements

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"> <li>Interprets key information from recipes, ingredient labels, baking equipment operating instructions and end-product specifications</li> </ul>
Writing	<ul style="list-style-type: none"> <li>Prepares production schedules and completes production records using required format, language and structure</li> </ul>
Numeracy	<ul style="list-style-type: none"> <li>Identifies and comprehends ingredient quantities in recipes, dates on ingredient labels, temperature and timer settings and product dimensions</li> <li>Estimates approximate quantities, and uses equipment to measure ingredient weights and volumes and product dimensions</li> <li>Performs calculations to adjust recipes using baking formulas, and allows for wastage</li> <li>Uses understanding of three-dimensional shapes to shape and portion products and check end-product shapes</li> <li>Interprets measurement information to set, monitor and adjust process parameters</li> <li>Completes production records using mathematical symbols and conventions</li> </ul>
Navigate the world of work	<ul style="list-style-type: none"> <li>Complies with workplace health and safety and food safety regulatory requirements relevant to a commercial baking operation</li> <li>Follows organisational policies and procedures relevant to own work role</li> </ul>

Skill	Description
Get the work done	<ul style="list-style-type: none"><li>Plans, organises and implements tasks required to achieve production outcomes</li><li>Uses problem-solving skills to analyse product and process faults and decide on appropriate action</li></ul>

## Range of Conditions

*This section specifies different work environments and conditions that may affect performance. Essential operating conditions that may be present (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) are included.*

Baking equipment for gateaux, tortes and entremets must include:	<ul style="list-style-type: none"><li>equipment, including:<ul style="list-style-type: none"><li>industrial mixer and attachments</li><li>freezer</li><li>cool room or refrigerator</li><li>industrial cook tops</li></ul></li><li>equipment accessories, including:<ul style="list-style-type: none"><li>dough hook attachment</li><li>cake beater attachment</li><li>cake whisk attachment</li></ul></li><li>ancillary equipment, including:<ul style="list-style-type: none"><li>rolling pin</li><li>cake hoops or tins</li><li>equipment to temper chocolate</li><li>plateware for entremets</li></ul></li><li>tools and utensils, including:<ul style="list-style-type: none"><li>pallet knives</li><li>ladles or spoons</li><li>scrapers</li><li>cake knives.</li></ul></li></ul>
Bases must include:	<ul style="list-style-type: none"><li>cake</li><li>laminated or short pastry.</li></ul>
Fillings and finishes must include:	<ul style="list-style-type: none"><li>sabayon or custard</li><li>aerated creams</li><li>chocolate-based glazes or sauces</li><li>tempered couverture chocolate</li><li>fruit fillings</li></ul>

	<ul style="list-style-type: none"><li>• bavarois or mousse</li><li>• meringue or butter cream</li><li>• chocolate or sugar garnishes.</li></ul>
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## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPRBK4003 Produce gateaux, tortes and entremets	FDFRB3015A Produce gateaux, tortes and entremets	Redesigned unit that includes content from previous unit  Code changed to reflect AQF alignment	No equivalent unit
	FDFRB3012A Diagnose and respond to product and process faults (pastry, cake and cookies)	Redesigned unit that includes content from previous unit	No equivalent unit

## Links

Companion Volumes, including Implementation Guides, are available at VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## Assessment Requirements for FBPRBK4003 Produce gateaux, tortes and entremets

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package version 1.0

### Performance Evidence

An individual demonstrating competency in this unit must satisfy all of the elements and performance criteria of this unit.

There must be evidence that the individual has produced gateaux, tortes and entremets according to a production schedule, including:

- producing the following three products:
  - gateaux
  - torte
  - small entremets
- presenting entremets on plateware appropriate for the entremets type, with the following three finishes:
  - using a sauce or coulis to present entremets
  - using a garnish of sugar or chocolate to present entremets
  - using an ice cream or sorbet to present with entremets
- producing gateaux and tortes using the following two bases made from scratch ingredients:
  - non laminated or laminated pastry
  - cake
- using the following three processes for producing gateaux, tortes and entremets:
  - chilling
  - freezing
  - baking
- using the following eight fillings and finishes prepared from scratch ingredients:
  - sabayon or custard
  - aerated creams
  - chocolate-based glazes or sauces
  - tempered couverture chocolate
  - fruit fillings

- bavarois or mousse
- meringue or butter cream
- chocolate or sugar garnishes
- using the following three decorating techniques for gateaux and tortes:
  - couverture chocolate
  - glazing
  - prepared garnishes
- using the following three garnishes:
  - chocolate garnishes
  - sugar garnishes
  - baked garnish
- selecting, using and cleaning the baking equipment listed in the range of conditions, including controlling electrical hazards applicable to cleaning
- documenting the production schedule, including the following six considerations:
  - timings
  - volume requirements
  - product processing requirements
  - finishing requirements for gateaux, tortes and entremets
  - presentation of gateaux, tortes and entremets
  - recipe reformulation to minimise waste.

Wastage that cannot be reused in production must be less than 5% of the weight of the original production schedule.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- workplace health and safety requirements, including personal protective equipment, applicable to producing gateaux, tortes and entremets
- safe use and cleaning of baking equipment listed in the range of conditions, including electrical hazards
- regulatory requirements for food safety applicable to producing gateaux, tortes and entremets
- considerations for production scheduling, including:
  - timings
  - volume requirements
  - product processing requirements
  - finishing requirements for gateaux, tortes and entremets
  - presentation of gateaux, tortes and entremets
  - recipe reformulation to minimise waste

- distinguishing characteristics of types of gateaux, tortes and entremets, including:
  - cold-set gateaux
  - multi-layered tortes
  - small entremets
- types of fillings and finishes, including:
  - sabayon
  - aerated creams
  - chocolate-based glazes and sauces
  - tempered couverture chocolate
  - bavarois or mousse
  - meringue
  - butter creams
  - baked garnish
  - custard
  - fruit filling
  - chocolate garnish
  - sugar garnish
- techniques for presenting entremets, including:
  - selecting plateware
  - presenting entremets at the appropriate temperature for the product type
- techniques for finishing, including:
  - using sauces and coulis to present entremets
  - using garnishes of sugar to present entremets
  - using garnishes of chocolate to present entremets
- assembling gateaux, tortes and entremets
- preparing cake tins and hoops
- purpose and functions of production settings, including:
  - oven temperatures
  - baking times
  - chill times
- required characteristics of gateaux, tortes and entremets, including:
  - appearance
  - consistency
  - shape
  - taste
  - texture
  - complementing flavours
- causes and corrective action for predictable and sometimes unpredictable production problems, including:
  - machinery failure

- environmental factors, including heat, humidity and cold
- poor quality ingredients
- techniques for disposing of waste from product production
- requirements for chilling and freezing gateaux, tortes and entremets
- product production terminology for gateaux, tortes and entremets.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - a commercial bakery or an environment that accurately represents workplace conditions
- resources, equipment and materials:
  - equipment specified in the range of conditions
  - personal protective equipment
  - mixing bowls
  - piping bags and nozzles
  - industrial oven
  - tins and trays
  - measuring cups and spoons
  - ingredients that meet the product types required in the performance evidence
  - pre-made flavoured ice cream or sorbet
  - prepared garnishes
- specifications:
  - recipes that meet the types of gateaux, tortes and entremets required in the performance evidence
  - end-product quality specifications to meet the product types required in the performance evidence
  - food safety code regulatory requirements applicable to producing gateaux, tortes and entremets
- timeframes:
  - according to the production schedule.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volumes, including Implementation Guides, are available at VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>





## FBPRBK4004 Develop baked products

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package version 1.0

### Application

This unit of competency describes the skills and knowledge required to apply baking techniques to develop baked products in a commercial baking environment.

This unit applies to individuals who apply a broad range of specialised knowledge and skills with responsibility for their own work. This includes applying and communicating non-routine technical solutions to predictable and unpredictable problems.

All work must be carried out to comply with workplace procedures, in accordance with State/Territory food safety, and work health and safety, regulations and legislation that apply to the workplace.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

### Pre-requisite Unit

Nil

### Unit Sector

Retail baking (RBK)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Identify product development opportunity	1.1 Research baked product trends to identify opportunities for new product development for local market 1.2 Review current baked product range to identify opportunities for

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	<p>improving products and processes</p> <p>1.3 Evaluate identified opportunities to define and document product development purpose and concept</p>
2. Specify development requirements	<p>2.1 Interpret product development concepts to prepare product specifications</p> <p>2.2 Develop and document draft recipes to meet product specifications and Food Standards Code</p> <p>2.3 Adjust draft recipes to meet special dietary, cultural or religious needs</p> <p>2.4 Select processes and develop draft process specifications and production work flow to meet product specifications</p> <p>2.5 Estimate product costings using draft recipes and draft process specifications</p>
3. Prepare for production trials	<p>3.1 Schedule and confirm availability of equipment to meet draft process specifications</p> <p>3.2 Identify ingredients to meet draft recipes and check to confirm quality and quantity</p> <p>3.3 Identify equipment and resource constraints, and resolve according to workplace procedures</p> <p>3.4 Identify and assess food safety and workplace health and safety risks, and determine risk controls</p>
4. Conduct production trials	<p>4.1 Produce trial products using draft recipes and process specifications</p> <p>4.2 Implement and monitor food safety and workplace health and safety risk controls</p> <p>4.3 Monitor production trial to identify production trial problems and rectify</p> <p>4.4 Record production trial process data according to workplace procedures</p> <p>4.5 Evaluate trial products against product specifications to identify non-conformances</p> <p>4.6 Interpret process data and trial product evaluation results to adjust recipes and process variables, and coordinate successive production trials to meet product specifications</p>

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	4.7 Record production trial variables and results according to workplace procedures
5. Confirm product development	5.1 Schedule and reproduce product to confirm recipe and process specification 5.2 Assess suitability of existing packaging supplies for final product packaging 5.3 Evaluate final product to verify product specifications and food safety requirements are met 5.4 Calculate final product cost using final recipes and process specifications 5.5 Determine product pricing and confirm commercial viability

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Learning	<ul style="list-style-type: none"> <li>Builds on knowledge of baking products and processes based on production trial outcomes</li> </ul>
Reading	<ul style="list-style-type: none"> <li>Sources and interprets a range of technical baking industry texts to determine relevance and usefulness for product development</li> </ul>
Writing	<ul style="list-style-type: none"> <li>Prepares recipes, production trial records and process and product specifications using structure, technical language and format appropriate to purpose</li> </ul>
Numeracy	<ul style="list-style-type: none"> <li>Extracts and interprets mathematical information embedded in technical baking industry texts</li> <li>Interprets financial information, including fixed and variable costs, profit margins and sale price ranges</li> <li>Performs calculations to develop and adjust recipes using baking formulas</li> <li>Estimates approximate quantities, and uses equipment to measure ingredient weights and volumes and determine size of packaging for product</li> <li>Interprets measurement information to set, monitor and adjust</li> </ul>

Skill	Description
	process parameters <ul style="list-style-type: none"> <li>• Uses mathematical symbols and conventions to document recipes, production trial records, and process and product specifications</li> </ul>
Navigate the world of work	<ul style="list-style-type: none"> <li>• Complies with workplace health and safety and food safety regulatory requirements relevant to a commercial baking operation</li> <li>• Follows organisational policies and procedures relevant to own work role</li> </ul>
Get the work done	<ul style="list-style-type: none"> <li>• Uses problem-solving skills to evaluate production trial outcomes and decide on appropriate action</li> <li>• Takes responsibility for planning, organising and implementing tasks required to achieve required outcomes</li> <li>• Uses digital technologies to set process parameters</li> </ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPRBK4004 Develop baked products	FDFRB3017A Participate in product development	Redesigned unit that includes content from the previous unit	No equivalent unit
	FDDRB4006A Explore and apply baking techniques to develop new products	Redesigned unit that includes content from the previous unit	No equivalent unit

## Links

Companion Volumes, including Implementation Guides, are available at VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# Assessment Requirements for FBPRBK4004 Develop baked products

## Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package version 1.0

## Performance Evidence

An individual demonstrating competency in this unit must satisfy all of the elements and performance criteria of this unit.

There must be evidence that the individual has developed one of the following baked products, using a minimum of eight ingredients and applying a pre- or post-baked finish component:

- a specialty bread
- a cake based product
- a pastry-based product.

The activities to develop the baked product must include:

- researching product and process development opportunities
- meeting one of the following six purposes:
  - identified market opportunity
  - cost saving for current product
  - healthy eating improvement for current product
  - time and labour improvement for current product
  - product quality improvement for current product
  - a special dietary, cultural or religious need
- preparing trial recipes
- conducting at least one production trial
- evaluating the final product to verify the following seven technical qualities of the product:
  - flavour style
  - moisture
  - structure
  - taste

- symmetry
- appearance
- aroma
- assessing the potential commercial viability of the product, including the following four considerations:
  - cost price versus final sales price
  - local market suitability
  - suitability of packaging and transport
  - compliance with food safety code regulatory requirements for the product and its ingredients.

The individual must prepare a final report that includes the following information:

- product development purpose and concept
- description of the special dietary, cultural or religious need
- production trial variables and results
- final product specification, including product assembly and presentation
- final product recipe
- final process specification
- final production work flow
- final product costing
- final product price.

The individual must reproduce the final product within operational constraints where the maximum waste is less than 5% of the weight of the production schedule.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- workplace health and safety requirements, including personal protective equipment, applicable to developing baked products and operating baking equipment
- regulatory requirements for food applicable to developing baked products
- identifying and evaluating product development opportunities
- purposes of product development, including:
  - meeting identified market opportunity
  - cost saving to current product
  - healthy eating improvement to a current product
  - time and labour improvement to a current product
  - product quality improvement to a current product
  - a special dietary, cultural or religious need

- commercial viability considerations used in product development, including:
  - addressing market or business opportunity
  - producing within operational constraints
  - cost price versus final sales price
  - local market suitability
  - suitability of packaging and transport
- types of production trial problems, including:
  - increased ingredient costs
  - non-availability of ingredients
  - equipment breakdown
  - labour shortages
- nature of special dietary requirements and gluten intolerance as it relates to developing baked products, including:
  - eggs
  - fish
  - milk
  - peanut
  - sesame
  - shellfish
  - soy
  - tree nuts
  - wheat
  - food allergy or food intolerance
- nature of cultural needs as they relate to developing baked products, including:
  - Australian
  - Asian
  - Indian
  - Middle Eastern
  - South European
  - African
- nature of religious needs as they relate to developing baked products, including:
  - Buddhism
  - Hinduism
  - Islam
  - Judaism
  - Christianity
- purpose and content of product development documentation, including:
  - product development purpose and concept
  - description of the special dietary, cultural or religious need
  - production trial variables and results

- final product specification, including product assembly and presentation
- final product recipe
- final process specification
- final production work flow
- final product costing
- final product price
- interaction of ingredients and processing variables and their effect on the quality of the final product, including:
  - product formulas
  - process parameters
- product evaluation, including:
  - flavours
  - moisture
  - structure
  - taste
  - symmetry
  - appearance
  - aroma
- techniques for determining product packaging and presentation for baked product development
- using industry standard terminology relevant to baked product development.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - a commercial bakery or an environment that accurately represents workplace conditions
  - local market for which product is to be developed
  - commercial bakery resources, equipment and materials suitable for the development of baked products
  - ingredients that meet baked product requirements
- specifications:
  - food standard code regulatory requirements applicable to developing baked products
- timeframes:
  - according to work requirements.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.



## Links

Companion Volumes, including Implementation Guides, are available at VETNet -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# FBPRBK4005 Apply advanced finishing techniques for specialty cakes

## Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package version 1.0

## Application

This unit of competency describes the skills and knowledge required to research and apply a range of finishing and decorating techniques for specialty cakes in a commercial baking or professional decorating environment.

This unit applies to individuals who apply a broad range of specialised knowledge and skills with responsibility for their own work. This includes applying and communicating non-routine technical solutions to predictable and unpredictable problems.

All work must be carried out to comply with workplace procedures, in accordance with State/Territory food safety, and work health and safety, regulations and legislation that apply to the workplace.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

## Pre-requisite Unit

Nil

## Unit Sector

Retail baking (RBK)

## Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Conduct research into	1.1 Identify and access information resources to inform the technical

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
finishing and decorating techniques	<p>and creative aspects of finishing and decorating</p> <p>1.2 Identify varieties of specialty cake products and explore a range of presentations</p> <p>1.3 Conduct research into the taste, texture, appearance and presentation of cakes to determine key features of finished effects</p> <p>1.4 Estimate costs associated with different finishing techniques and features</p>
2. Design finish and decoration for bakery products	<p>2.1 Confirm design parameters, including colours, flavours, any special requirements or preferences, budget, required servings and quantity</p> <p>2.2 Develop a design for decoration and finishing to meet specialty cake requirements</p> <p>2.3 Document design according to organisational requirements</p>
3. Plan finishing	<p>3.1 Examine ingredients used in finishing to identify their suitability for finishing techniques</p> <p>3.2 Develop a specialty cake finishing plan to specify required resources and work sequence</p> <p>3.3 Source and prepare finishing ingredients</p> <p>3.4 Prepare equipment for use to meet production requirements</p> <p>3.5 Prepare bases for finishing</p>
4. Produce finishing and decorating effects	<p>4.1 Produce decorative pieces and garnishes to meet finishing design</p> <p>4.2 Produce fillings and toppings to meet finishing plan</p> <p>4.3 Complete product decoration and finishing to finishing plan</p> <p>4.4 Identify and rectify finishing problems</p>
5. Cost and price final products	<p>5.1 Identify ingredient costs to calculate cost of materials</p> <p>5.2 Estimate production costs to determine processing costs</p> <p>5.3 Calculate cost of specialty cake based on ingredient and processing costs</p> <p>5.4 Price products to according to workplace pricing policy</p>
6. Prepare final products for market	<p>6.1 Assess final cake to estimate product shelf life and required storage conditions</p> <p>6.2 Prepare cake products for display, sale, packaging and presentation</p>

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	according to organisational requirements 6.3 Identify and rectify storage and presentation problems in accordance with food safety requirements
7. Complete work	7.1 Clean equipment and work area to meet housekeeping standards 7.2 Dispose of waste according to workplace requirements 7.3 Complete workplace records according to workplace requirements

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"> <li>Interprets client briefs, recipes and ingredient labels</li> <li>Interprets equipment operating instructions</li> <li>Interprets textual information obtained from a range of sources, and determines how content may be applied to advanced finishing</li> </ul>
Writing	<ul style="list-style-type: none"> <li>Maintains production records using required format, language and structure</li> </ul>
Numeracy	<ul style="list-style-type: none"> <li>Identifies and comprehends ingredient quantities in recipes, dates on ingredient labels, temperature and timer settings and product dimensions</li> <li>Estimates approximate quantities, and uses equipment to measure ingredient weights and volumes and product dimensions</li> <li>Uses understanding of three-dimensional shapes to shape and portion products and check end-product shapes</li> </ul>
Oral communication	<ul style="list-style-type: none"> <li>Uses questioning techniques and active listening to confirm details, clarify responses and seek advice on finishing designs</li> </ul>
Navigate the world of work	<ul style="list-style-type: none"> <li>Complies with workplace health and safety and food safety regulatory requirements relevant to a commercial baking operation</li> <li>Follows organisational policies and procedures relevant to own work role</li> </ul>
Get the work done	<ul style="list-style-type: none"> <li>Plans, organises and implements tasks required to achieve production outcomes</li> <li>Uses problem-solving skills to analyse product and process faults</li> </ul>

Skill	Description
	and decide on appropriate action

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPRBK4005 Apply advanced finishing techniques for specialty cakes	FDFRB4005A Apply advanced finishing techniques for specialty cakes and desserts	Redesigned unit incorporating content from previous unit, excluding desserts	Equivalent unit

## Links

Companion Volumes, including Implementation Guides, are available at VETNet -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## Assessment Requirements for FBPRBK4005 Apply advanced finishing techniques for specialty cakes

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package version 1.0

### Performance Evidence

An individual demonstrating competency in this unit must satisfy all of the elements and performance criteria of this unit.

There must be evidence that the individual has designed and applied advanced finishing and decoration to two speciality cakes to reflect different client designs. One of the specialty cakes must be tiered. The cakes must include two of the following shapes:

- square or oblong
- oval or circle
- novelty shape.

The advanced finishing and decorating of the specialty cakes must:

- include two of the following decorations:
  - figurine
  - floral
  - specialty shapes
- use two of the following decorating mediums:
  - fondant icing
  - marzipan
  - chocolate paste, icing or glaze
  - butter cream
- incorporate the following processes:
  - masking
  - enrobing
  - piping
  - modelling.

The individual must produce a written report that demonstrates a design plan has been incorporated into one of the specialty cakes, including:

- product finishing requirements
- special decoration ingredients
- special equipment and process requirements
- design parameters, including colours, flavours, servings and quantity
- filling and decoration recipe specifications
- storage requirements
- shelf life specifications
- packaging and presentation instructions
- product costing and pricing.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- information resources to guide selection and implementation of cake decorating design and techniques
- ingredient characteristics, purpose and preparation requirements, including:
  - scope to substitute or vary ingredients in a recipe
  - the effect of ingredients on shelf life and food safety
  - the role, preparation requirements and uses of additives, including colours and flavours
- types and handling of bases, including:
  - fruit cake
  - mud cake
  - torte
  - sponges
- use and storage of decorating ingredients and materials, including:
  - fondant icing
  - marzipan
  - chocolate paste, icing or glaze
  - butter cream
  - syrups
  - flavoured sauces and toppings
  - cream
- finishing and decorating tools and techniques used to create decorative pieces and garnishes, including:
  - sugar flowers
  - cut shapes
  - moulded shapes
  - sculptures

- cake toppers
- content for design plans, including:
  - product finishing and decoration ingredient, equipment and process requirements
  - design parameters, including colours, flavours, servings and quantity
  - filling and decoration recipe specifications
  - storage requirements
  - shelf life specifications
  - packaging and presentation instructions
  - product costing and pricing
- optimum related sequencing and preparation requirements for cake decorations
- optimum conditions for use of finishings, including temperature and moisture content
- optimum storage conditions and the effect of refrigeration and freezing on finished product
- information to be provided to consumers as appropriate to product type and consistent with food safety requirements
- methods of estimating fixed and variable costs, and profit margin to determine sale price range
- work health and safety hazards and controls relating to work processes
- industry standard terminology applicable to advanced finishing.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - a commercial bakery or an environment that accurately represents workplace conditions
- resources, equipment and materials:
  - cake mixer and attachments
  - mixing bowls
  - piping bags and nozzles
  - measuring cups and spoons
  - cake decorating tools and equipment
  - personal protective clothing and equipment
  - documentation or technology for recording information
  - cleaning procedures, materials and equipment
  - ingredients that meet the product types required in the performance evidence
  - production costing information
  - cleaning procedures, materials and equipment
- specifications:
  - recipes that meet the product types required in the performance evidence
  - product design briefs



- relationships (internal and/or external):
  - supervisor
- timeframes:
  - according to work requirements.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volumes, including Implementation Guides, are available at VETNet -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## FBPRBK4006 Coordinate baking operations

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package version 1.0

### Application

This unit of competency describes the skills and knowledge required to coordinate baking operations in a commercial baking environment.

This unit applies to individuals who apply a broad range of specialised knowledge and skills with responsibility for their own work and limited responsibility for the output of others in a team. This includes applying and communicating non-routine technical solutions to predictable and unpredictable problems.

All work must be carried out to comply with workplace procedures, in accordance with State/Territory food safety, and work health and safety, regulations and legislation that apply to the workplace.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

### Pre-requisite Unit

Nil

### Unit Sector

Retail baking (RBK)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Plan bakery production	1.1 Identify types and estimate volumes of baked products needed to meet production demand and customer special orders 1.2 Identify production processes, equipment and labour needed to

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	<p>produce baked product types and production volumes</p> <p>1.3 Select and collate master recipes to meet baked product types, and adjust to meet production volumes</p> <p>1.4 Prepare preparation lists to specify pre-production requirements</p> <p>1.5 Prepare production schedules to meet production volumes</p> <p>1.6 Calculate and check availability of bakery supplies needed to meet baked product types and volumes, and order additional stock as required to meet bakery production supply needs</p>
2. Monitor and control bakery production	<p>2.1 Provide production schedules to bakery production staff for implementation</p> <p>2.2 Confirm recipes used meet required baked product types</p> <p>2.3 Monitor and address food safety risks to meet food safety standards</p> <p>2.4 Monitor and address workplace health and safety risks to meet safety requirements</p> <p>2.5 Monitor and control bakery work flow to maximise productivity</p> <p>2.6 Monitor and control product and process parameters to meet end-product specifications, including the baked weight</p>
3. Complete bakery production	<p>3.1 Confirm bakery production, including customer special orders, meets scheduled product types, volumes and times</p> <p>3.2 Confirm final product evaluations meet end-product specifications prior to product release for storage or sale</p> <p>3.3 Confirm safe storage of baked products according to food safety standards and workplace procedures</p> <p>3.4 Complete baking operations documentation according to workplace procedures</p>

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"> <li>Interprets key information in customer special orders, master recipes, stock control documents and end-product specifications</li> </ul>
Writing	<ul style="list-style-type: none"> <li>Prepares comprehensive and accessible baking operations documentation using structure, technical language and format appropriate for purpose and audience</li> </ul>
Oral communication	<ul style="list-style-type: none"> <li>Uses vocabulary relevant to role and context to convey and clarify information with suppliers and special order information with customers or bakery staff</li> </ul>
Numeracy	<ul style="list-style-type: none"> <li>Extracts and interprets mathematical information embedded in baking operations texts, including customer special orders, master recipes, stock control documents and end-product specifications</li> <li>Performs calculations to adjust recipes using baking formulas, and allows for wastage</li> <li>Uses estimation to inform sequencing and timing of bakery production processes and products</li> <li>Interprets measurement information to monitor and control bakery operations</li> <li>Uses mathematical symbols and conventions to complete bakery operations documentation</li> </ul>
Interact with others	<ul style="list-style-type: none"> <li>Selects and uses appropriate communication techniques with bakery production staff to delegate work, discuss work requirements, implement process improvements and debrief on products and recipes</li> </ul>
Navigate the world of work	<ul style="list-style-type: none"> <li>Complies with workplace health and safety and food safety regulatory requirements relevant to a commercial baking operation</li> <li>Follows organisational policies and procedures relevant to own work role</li> </ul>
Get the work done	<ul style="list-style-type: none"> <li>Takes responsibility for identifying and addressing production work flow and product quality problems to optimise production efficiencies</li> </ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPRBK4006 Coordinate baking operations	FDFRB4002A Control bakery operations to meet quality and production	Redesigned unit based on previous unit	No equivalent unit

	requirements		
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## Links

Companion Volumes, including Implementation Guides, are available at VETNet -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# Assessment Requirements for FBPRBK4006 Coordinate baking operations

## Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package version 1.0

## Performance Evidence

An individual demonstrating competency in this unit must satisfy all of the elements and performance criteria of this unit.

There must be evidence that the individual has coordinated baking operations, including:

- coordinating at least one of the following four baking operations:
  - bread production process
  - cake production process
  - pastry production process
  - combination of any of the above three bakery production processes
- coordinating at least two of the following seven baked product ranges:
  - decorated products
  - post-bake decorated products
  - retarded yeast goods
  - frozen bakery goods
  - fresh baked bakery goods
  - packaged bakery goods
  - unpackaged bakery goods
- developing and documenting a production schedule that includes:
  - a logical sequence of bakery production processes
  - an accurate estimation of required ingredient and equipment resources to satisfy production volumes, allowing for 5% maximum product wastage
  - specification of the plant, labour and material inputs
  - specification of the finished products outputs
  - matching the required volume of production to the existing resources
- developing and documenting a preparation list, including consideration of:
  - pre-preparation of ingredients
  - pre-preparation of fillings

- pre-preparation of finishings
- pre-preparation of equipment
- calculating and ordering bakery supplies, including consideration of:
  - stock levels required for production
  - special agreements with suppliers of stock
  - stock delivery constraints
- preparing recipes for production, including:
  - master recipes adjusted for volume
  - processing requirements of the products
  - special considerations for time, temperature and special dietary needs
  - equipment required
- monitoring operations and addressing variations to ensure product specifications and production volumes are met.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- workplace health and safety requirements applicable to coordinating bakery operations
- regulatory requirements for food safety applicable to coordinating bakery operations
- the stages and work flow requirements of bakery production processes for:
  - decorated products
  - post-bake decorated products
  - retarded yeast products
  - frozen bakery products
  - fresh baked bakery products
  - packaged bakery products
  - unpackaged bakery products
- principles of production scheduling, including:
  - logical sequence of work
  - time constraints of products and processes
  - specification of the plant, labour and material inputs
  - specification of the finished products outputs
  - allowing for wastage
  - estimating ingredient requirements for production
  - equipment output volumes
  - labour requirements for production
  - scheduling production to finish products after cooling in time for delivery and sale
  - matching the required volume of production to the existing resources
- pre-production requirements for baking operations, including:

- types of fillings that need to be prepared prior to production
- types of finishings required for a bakery production
- content and layout of master recipes and how to adjust for volume
- production reporting methods used in bakeries
- indicators of the quality baked products, including:
  - baked colour
  - crumb and internal textures
  - consistency
  - moisture content
  - mouth feel and eating properties
  - shape
  - taste
  - texture
  - baked weight
- bakery operations standard terminology.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - a commercial bakery or an environment that accurately represents workplace conditions
  - commercial resources, equipment and materials suitable for the production of the bakery products required in the performance evidence
- specifications:
  - master recipes that meet the product types required in the performance evidence
  - end-product specifications that meet the product types required in the performance evidence
- relationships (internal and/or external):
  - suppliers
  - bakery production staff
- timeframes:
  - according to work requirements.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volumes, including Implementation Guides, are available at VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>





## FBPRBK4007 Assess and evaluate bread products

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package version 1.0

### Application

This unit of competency describes the skills and knowledge required to evaluate the quality of baked bread products.

This unit is applicable to a commercial baking environment, particularly during product testing, confirming the quality of developed products and judging products for a baking competition or for commercial positioning. It can be applied to a specific bakery product range and should be customised to the quality standards of that product range.

This unit applies to individuals who apply a broad range of specialised knowledge and skills with responsibility for their own work. This includes applying and communicating non-routine technical solutions to predictable and unpredictable problems.

All work must be carried out to comply with workplace procedures, in accordance with State/Territory food safety, and work health and safety, regulations and legislation that apply to the workplace.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

### Pre-requisite Unit

Nil

### Unit Sector

Retail baking (RBK)

### Elements and Performance Criteria

Elements	Performance Criteria
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<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Determine methodology for evaluating bread product quality	1.1 Define product and identify product class 1.2 Research and identify standards relevant to product class 1.3 Review product class standards and select product quality criteria 1.4 Select evaluation methodology to ensure standardised evaluation approach
2. Assess bread product	2.1 Assess product volume and appearance against standards 2.2 Assess product characteristics, including texture, aroma, colour and taste against standards 2.3 Assess technical difficulty and originality of product against standards 2.4 Document assessment findings according to workplace procedures
3. Complete bread evaluation	3.1 Use assessment findings to rate product characteristics against product quality criteria 3.2 Identify common product problems and determine their causes 3.3 Review ratings to determine product strengths and weaknesses against the standards 3.4 Document evaluation according to workplace procedures
4. Make bread product comparisons and recommendations	4.1 Compare product with other products of its class 4.2 Interpret findings to make recommendations for quality rating and commercial positioning of product 4.3 Make recommendations for product improvement according to findings

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

<b>Skill</b>	<b>Description</b>
Reading	<ul style="list-style-type: none"> <li>Interprets textual information obtained from a range of sources and determines how content may be applied to product evaluation</li> </ul>
Writing	<ul style="list-style-type: none"> <li>Integrates information from a number of sources to develop evaluation criteria and methodology</li> </ul>

Skill	Description
	<ul style="list-style-type: none"><li>Prepares assessment reports using technical baking terminology and clear, logical language</li></ul>
Oral communication	<ul style="list-style-type: none"><li>Uses questioning techniques and active listening to confirm details, clarify responses and seek advice</li></ul>
Navigate the world of work	<ul style="list-style-type: none"><li>Independently keeps up-to-date with baking product knowledge and quality standards</li></ul>
Get the work done	<ul style="list-style-type: none"><li>Plans, organises and implements tasks required to achieve required outcomes</li></ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPRBK4007 Assess and evaluate bread products	FDFRB4007A Evaluate and assess bakery product	Redesigned unit with a focus on bread products, incorporating content from previous unit	No equivalent unit

## Links

Companion Volumes, including Implementation Guides, are available at VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# Assessment Requirements for FBPRBK4007 Assess and evaluate bread products

## Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package version 1.0

## Performance Evidence

An individual demonstrating competency in this unit must satisfy all of the elements and performance criteria of this unit.

There must be evidence that the individual has assessed and evaluated three of the following bread products:

- sweet product
- fibre product
- rye product
- meal product
- savoury product
- basic bread product
- sour bread product
- specialty bread product
- decorative bread product.

The evaluation and assessment of the three product varieties must be benchmarked against at least three other products of the same variety to produce comparative findings and qualitative judgements. The individual must also have researched two different baking industry sources and selected suitable product quality criteria to make the assessment and evaluations.

The bread products to be assessed and evaluated must include:

- three of the following product finishes:
  - baked finished product
  - post-baked finished product
  - dusted product
  - seed product
  - decorative finished product

- glaze finished product
- cream or iced finished product
- sweet finished product
- at least two of the following shapes:
  - condensed
  - roll
  - baton
  - sandwich
  - loaf/Vienna
  - high top
  - parcel
  - baguette
  - novelty shape.

In assessing and evaluating one bread product, the individual must create a written report that includes each of the following categories:

- appearance, including:
  - symmetry, uniformity and volume
  - presentation and cleanliness
  - crumb character
  - baked or fried colour
  - general character
- texture, including:
  - crumb cell size
  - gas cell structure
  - feel and softness
  - crumb stability
  - moisture of product
- aroma, including:
  - freshness
  - fermentation aromas as required by product
  - aroma suitability to product type
- flavour, including:
  - suitability of product variety
  - freshness
  - sweetness according to flavour variety required
  - levels of salt according to flavour variety required
  - quality of ingredients.

The evaluation and assessment report must also include the following considerations:

- storage stability and shelf life
- product cost compared to product quality
- suitability of packaging against the product variety
- technical difficulty
- product originality
- appearance
- volume
- problems or faults with the product and their causes
- an overall numerical score and descriptive rating of the product
- a recommendation on the commercial positioning of the product compared to competitor products.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- techniques used to assess and evaluate bread products, including:
  - sweet product
  - fibre product
  - rye product
  - meal product
  - savoury product
  - basic bread product
  - sour bread product
  - specialty bread product
  - decorative bread product
- fermented bread product finishes, including:
  - baked finishes
  - seeding and dusting product
  - decorative finishes
  - glazed finishes
  - cream or iced finishes
  - sweet finishes
- fermented product characteristics, including:
  - internal and external appearances
  - internal and external textures
  - internal and external aromas
  - internal and external flavours
- other bread product features and considerations, including:
  - storage stability and shelf life

- product cost compared to product quality
- packaging against the product variety
- technical difficulty
- product originality
- volume
- common problems or faults and their causes
- technical bakery science terminology.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - a commercial bakery or a food evaluation venue, or an environment that accurately represents workplace conditions
- resources, equipment and materials:
  - bakery products for evaluation
  - bakery products from the same class for comparison
  - equipment for conducting tests
  - documentation or technology for recording information
  - workplace procedures for evaluating and assessing products
- specifications:
  - industry recognised bakery product standards
- relationships (internal and/or external):
  - bakery representatives
- timeframes:
  - according to work requirements.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volumes, including Implementation Guides, are available at VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>



## FBPRBK4008 Apply bread baking science

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package version 1.0

### Application

This unit of competency describes the skills and knowledge required to apply technical knowledge and principles of bread processing and ingredient sciences in the production of bread products in a commercial bakery. It includes the reactions of baking ingredients during mixing, processing and baking.

This unit applies to individuals who apply a broad range of specialised knowledge and skills to their own work. They take responsibility for bakery production, testing and problem-solving.

All work must be carried out to comply with workplace procedures, in accordance with State/Territory food safety, and work health and safety, regulations and legislation that apply to the workplace.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

### Pre-requisite Unit

Nil

### Unit Sector

Retail baking (RBK)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Analyse aspects of	1.1 Read and interpret a Certificate of Analysis for breadmaking flour

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
ingredients on finished bread products	<p>1.2 Identify the impact of ingredients on final products, and consider these impacts when selecting, measuring and using ingredients</p> <p>1.3 Identify processes and techniques used in the manufacture of ingredients, and how these impact on ingredient characteristics</p> <p>1.4 Identify types of food additives used in bread products, their functions and the likely reactions they may cause when combined with other ingredients</p> <p>1.5 Identify the properties and reactions of sugars, proteins and fats, and their tracking points during baking production processes</p> <p>1.6 Identify the properties of common emulsions, suspensions and solutions, and their impacts on the finished product, when selecting ingredients</p> <p>1.7 Recognise common chemical and physical reactions, and factors required to cause a reaction, to control impact on the finished product</p> <p>1.8 Apply knowledge of ingredients, interactions and baking processes to predict product shelf life of finished product</p>
2. Analyse aspects of ingredient variations and changes in processing	<p>2.1 Identify the role and science of fermentation in bread products and apply process variations to achieve different outcomes</p> <p>2.2 Examine the features and benefits of different ingredient changes and interactions during fermentation</p>
3. Manage variations in baking processes	<p>3.1 Identify the role and science of mixing ingredients in bakery products and apply process variations to achieve different outcomes</p> <p>3.2 Identify the role and science of retardation in bakery products and apply process variations to achieve different outcomes</p> <p>3.3 Identify the role and science of freezing in bakery products and apply process variations to achieve different outcomes</p> <p>3.4 Identify the impact of temperature, moisture and time on production and product outcome in management of operations</p> <p>3.5 Identify the impacts of varying baking processes on production and product outcome in production planning and management</p> <p>3.6 Select and manage baking processes to maximise production efficiencies</p> <p>3.7 Identify and address production problems in process variations</p>

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Learning	<ul style="list-style-type: none"> <li>Undertakes independent research and experimentation and reflects on performance to build own knowledge and skills of food and bread baking science making methods</li> </ul>
Reading	<ul style="list-style-type: none"> <li>Sources, interprets and analyses baking science information from a range of technical food industry texts</li> </ul>
Writing	<ul style="list-style-type: none"> <li>Prepares reports on baking experiments, process and product specifications, using food scientific and technical language and formats appropriate to purpose</li> </ul>
Numeracy	<ul style="list-style-type: none"> <li>Extracts and interprets mathematical information embedded in technical baking industry texts</li> <li>Performs calculations and uses baking product formulas to interpret, adapt and adjust baking product processes</li> <li>Uses mathematical symbols and conventions relevant to the baking industry to document experiment outcomes, recipes, and process and product specifications</li> </ul>
Get the work done	<ul style="list-style-type: none"> <li>Uses problem-solving skills to analyse and evaluate bakery production ideas, processes and experiments, and decide on appropriate action</li> <li>Takes responsibility for planning, organising and implementing tasks required to achieve required outcomes</li> </ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPRBK4008 Apply bread baking science	FDFRB4003A Apply baking science to work practices	Redesigned unit with a focus on bread products, incorporating content from previous unit	No equivalent unit

## Links

Companion Volumes, including Implementation Guides, are available at VETNet -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# Assessment Requirements for FBPRBK4008 Apply bread baking science

## Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package version 1.0

## Performance Evidence

An individual demonstrating competency in this unit must satisfy all of the elements and performance criteria of this unit.

There must be evidence that the individual has explored baking science through processing two of the following bread product varieties:

- white/bakers flour product
- low protein flour product
- rye flour product
- meal flour product
- grain flour product.

For each the two bakery product varieties, the individual must have explored:

- the chemical and physical changes during the processing and mixing, including:
  - undermixing protein development using low intensity mixing
  - overmixing protein development using high intensity mixing
  - baking of undermixed dough to record volume and baked colour against a uniform standard dough
  - baking of overmixed dough to record volume, pan flow and baked colour against a uniform standard dough
  - recording the change in extension of gluten or window testing of fermentation doughs between undermixed dough and overmixed dough against a uniform standard dough
- liquid washing of bread doughs, including:
  - baking of protein balls to record volume and baked colour against protein level
  - measuring baked and cut protein balls to record crumb strength and texture
- adjusting the salt levels lower in a bread dough product to record the acceptable levels of both dough maturity and bread flavour, including:
  - mixing tolerance changes in reduced salt doughs
  - flavour tolerance changes in reduced salt doughs

- mixing time changes in delayed salt method doughs
- liquid hydration of reduced salt doughs
- adjusting and recording yeast levels in bread doughs to counteract the effect of sugar on fermentation doughs, including:
  - raising the percentage of yeast to percentage of sugar in the dough between 5% up until 15% sugar
  - comparing the rises in yeast levels against the processing times of a uniform standard bread dough based on 2% sugar
  - recording the change in hydration levels against the change in sugar levels
  - recording the change in salt levels against the change in sugar and yeast levels.

The individual must record the changes in the overall processing times of production of the two different bread dough types, including different protein and sugar levels. The individual must record the changes in processing times using two different varieties of bread improver, including the:

- overall processing time changes in fermented product
- finished baked product internal characteristics
- external baked product characteristics
- volume differences against a uniform standard product.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- the chemical and physical changes during the processing and mixing of bread dough products
- mixing bread doughs, including:
  - energy inputs of different mixing systems, including high energy and low energy mixing
  - the effects of energy on mixing fermented dough, and how it affects gluten development
  - the effects of energy on mixing fermented dough, and how it affects baked qualities
- liquid washing of bread doughs, including how the protein level affects:
  - the baked quality of protein balls
  - the internal structure of baked protein balls
- the effects of altering the salt levels in bread doughs, including changes in:
  - dough tolerance during mixing
  - fermentation and flavour
  - mixing times
  - processing and fermentation times
- the effects of altering the yeast levels in doughs to counteract the effect of sugar or fat on bread doughs, including changes in:

- yeast levels to counter-affect the quantity of sugar and fat levels
- hydration levels to counter-affect the quantity of sugar or fat levels
- salt levels to counter-affect the quantity of sugar or fat levels
- the characteristics of different varieties of bread improver and their effects, including:
  - processing changes
  - finished baked product internal characteristics
  - external baked product characteristics
  - baked volume differences
- the cause-and-effect relationship on bread production processes of the following:
  - mixing and fermentation changes
  - changes of yeast levels
  - changes of salt levels
  - changes of protein levels
  - changes of sugar levels
  - changes of hydration levels
- dough rheology and bread baking science considerations, including:
  - the basic structures and properties of sugars, proteins and fats
  - common chemical reactions
  - common physical reactions
  - physical dough testing
  - panary aeration
- the content and purpose of a Certificate of Analysis for a commercial grade bread making flour, including the detailed analyses and how these affect bread production, including:
  - protein percentage
  - moisture percentage
  - water absorption percentage
  - extensograph height in Brabender Units (BU)
  - extensograph length in centimetre square (CMS)
  - falling number
  - development time in minutes
- food and bakery science terminology.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - a commercial bakery or laboratory, or an environment that accurately represents workplace conditions
  - access to the internet
- resources, equipment and materials:

- relevant trade magazines and published articles
- commercial Certificate of Analysis
- equipment and ingredients relevant to the product and process types specified in the performance evidence
- bread science measuring equipment to meet the requirements of the performance evidence
- specifications:
  - access to the Food Standards Code
  - bread recipes and specifications
- timeframes:
  - according to work requirements.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volumes, including Implementation Guides, are available at VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>



## FBPSUG1001 Install pre-ballast

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

### Application

This unit of competency describes the skills and knowledge required to prepare for and lay pre-ballast.

The unit applies to individuals who work under supervision installing pre-ballast in preparation for laying railway track for a cane haulage system in the sugar industry.

All work must be carried out to comply with workplace procedures according to state/territory health and safety regulations, legislation and standards that apply to the workplace.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

### Pre-requisite Unit

Nil

### Unit Sector

Sugar milling (SUG)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Plan and prepare work	1.1 Identify the location and scope of work according to job specifications 1.2 Organise materials required to complete the work 1.3 Confirm equipment operational and safety status 1.4 Select, fit and use personal protective equipment according to

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	workplace safety procedures 1.5 Confirm that work is clearly signed, and advise relevant authorities that work is in progress according to workplace safety procedures 1.6 Identify and remove potential hazards from site before starting work
2. Set out base and run pre-ballast	2.1 Set out base and foundation from off-set pegs to centre line and width for ballast according to track design and specifications 2.2 Apply pre-ballast evenly to meet specified thickness 2.3 Compact pre-ballast to meet specifications
3. Complete work	3.1 Clear the construction area of debris according to workplace procedures and safety requirements 3.2 Store unused materials according to workplace procedures, and safety requirements 3.3 Clean and store tools, plant and equipment according to workplace procedures

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"> <li>Interpret work requirements from workplace information</li> </ul>
Writing	<ul style="list-style-type: none"> <li>Record basic information in required format</li> </ul>
Numeracy	<ul style="list-style-type: none"> <li>Estimate quantities of material required</li> </ul>
Navigate the world of work	<ul style="list-style-type: none"> <li>Understand main tasks, responsibilities and boundaries of own role</li> </ul>
Interact with others	<ul style="list-style-type: none"> <li>Use required methods to communicate with others</li> </ul>
Get the work done	<ul style="list-style-type: none"> <li>Complete tasks in required sequence</li> <li>Apply decision-making processes to control hazards in routine</li> </ul>

Skill	Description
	situations

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPSUG1001 Install pre-ballast	FDFSUG101A Install pre-ballast	Updated to meet Standards for Training Packages  Minor edits to reflect AQF alignment	Equivalent unit

## Links

Companion Volume Implementation Guides are found in VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## Assessment Requirements for FBPSUG1001 Install pre-ballast

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

### Performance Evidence

An individual demonstrating competency must satisfy all of the elements and performance criteria in this unit.

There must be evidence that the individual has installed pre-ballast for at least one given project in line with workplace contexts, and demonstrated each of the following points at least once:

- organised required materials
- checked equipment operation
- correctly selected, fitted and used personal protective equipment (PPE)
- correctly used signage and communications equipment
- safely operated pre-ballast equipment to lay and compact materials to the required location, width and thickness
- performed site clean-up, and stored materials, tools and equipment.

### Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- functions and basic operating principles of pre-ballast laying equipment
- common problems related to laying pre-ballast, and corrective action required
- the impact of the pre-ballast base on related track laying operations
- foundation specifications, including the materials used, thickness and compactness
- the steps involved in constructing/repairing track
- safe work procedures:
  - hazards and control measures related to laying pre-ballast
  - key health and safety requirements in the workplace
  - correct use of PPE
  - correct techniques for manual handling
- workplace cleaning standards for the work area
- requirements to liaise with and advise others in related work areas

- use of traffic control signage relevant to installing pre-ballast.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - skills must be demonstrated in a cane railway system or an environment that accurately represents workplace conditions
- resources, equipment and materials:
  - spreader, roller and related equipment
  - materials handling equipment
  - base materials – typically gravel and stone
  - PPE
  - traffic control signage and communication equipment
  - workplace information recording system
- specifications:
  - site and related project information
  - relevant health and safety workplace documentation
  - operating procedures and related advice on equipment operation
  - workplace cleaning standards and procedures.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## FBPSUG1002 Undertake shunting operations

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

### Application

This unit of competency describes the skills and knowledge required to plan and carry out shunting of rolling stock to meet requirements of the marshalling strategy.

The unit applies to individuals who work under supervision with rolling stock in a cane haulage system in the sugar industry.

All work must be carried out to comply with workplace procedures according to state/territory health and safety regulations, legislation and standards that apply to the workplace.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

### Pre-requisite Unit

Nil

### Unit Sector

Sugar milling (SUG)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Plan and prepare for shunting operation	1.1 Select, fit and use personal protective equipment according to workplace requirements 1.2 Identify and report hazards and damage or faults in bins and equipment to supervisor 1.3 Confirm shunting requirements with supervisor

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	1.4 Locate and prepare vehicles and equipment according to workplace procedures 1.5 Identify rolling stock movements, availability and locations to determine appropriate siding or track locations for vehicle placement
2. Carry out shunting control procedures	2.1 Use points, levers, switches, signals and line of sight communications to assist the control of rolling stock movement 2.2 Use hand, light and radio shunting commands that conform with operational and statutory requirements 2.3 Check consignment notes or tickets and locate and sort bins according to marshalling requirements 2.4 Couple and uncouple rolling stock according to workplace procedures
3. Complete work	3.1 Record workplace information according to workplace procedures 3.2 Clean and store tools, plant and equipment according to workplace procedures

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Numeracy	<ul style="list-style-type: none"> <li>Count bins, rakes and rolling stock</li> </ul>
Navigate the world of work	<ul style="list-style-type: none"> <li>Understand main tasks, responsibilities and boundaries of own role</li> </ul>
Interact with others	<ul style="list-style-type: none"> <li>Communicate with others according to workplace communication practices</li> </ul>
Get the work done	<ul style="list-style-type: none"> <li>Complete tasks in required sequence</li> <li>Apply decision-making processes to control hazards in routine situations</li> </ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPSUG1002 Undertake shunting operations	FDFSUG102A Undertake shunting operations	Updated to meet Standards for Training Packages  Minor updates to reflect AQF alignment	Equivalent unit

## Links

Companion Volume Implementation Guides are found in VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>



# Assessment Requirements for FBPSUG1002 Undertake shunting operations

## Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

## Performance Evidence

An individual demonstrating competency must satisfy all of the elements and performance criteria in this unit.

There must be evidence that the individual has undertaken shunting operations, in line with workplace contexts, and demonstrated each of the following points at least once:

- identified shunting requirements
- safely fitted and used personal protective equipment (PPE)
- identified and reported hazards and maintenance requirements for bins and rakes
- determined siding or track locations for vehicles
- attached and detached rolling stock
- correctly used controls and communications equipment during shunting
- recorded required shunting information
- cleaned and stored tools, plant and equipment according to workplace requirements.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- functions and basic operating principles of equipment used for shunting operations
- methods used to render equipment safe to inspect, maintain and/or clean, including lock-out, tag-out and isolation procedures
- acceptable locomotive, bin and rake condition and requirements for reporting any items needing repair
- requirements of cut-to-crush sequencing of cane rakes
- key health and safety requirements in the workplace:
  - correct use of PPE
  - safe work procedures
  - hazards related to work responsibilities and associated control measures
  - procedures for responding to emergency situations

- how to communicate using hand, light and audible communication signals
- workplace cleaning standards for the work area.
- requirements to liaise with or advise personnel in related work areas.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - skills must be demonstrated in a cane railway system or an environment that accurately represents workplace conditions
- resources, equipment and materials:
  - consignment notes, tickets, logs and running sheets
  - PPE
  - communication equipment
  - media for recording workplace information
- specifications:
  - operating procedures and related advice on equipment operation
  - workplace cleaning standards and procedures.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## FBPSUG1003 Move cane bins in a marshalling yard

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

### Application

This unit of competency describes the skills and knowledge required to move cane bins to ensure efficient cane supply operations.

The unit applies to individuals who work under supervision in sugar mill storage and marshalling yards.

All work must be carried out to comply with workplace procedures according to state/territory health and safety regulations, legislation and standards that apply to the workplace.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

### Pre-requisite Unit

Nil

### Unit Sector

Sugar milling (SUG)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare for work in a cane bin marshalling yard	1.1 Select, fit and use personal protective equipment according to safe work practices 1.2 Identify and report health and safety hazards and maintenance requirements to supervisor

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
2. Move full cane bins	2.1 Check continuity of cane supply to mill to meet cut-to-crush sequence using communication system 2.2 Connect cane bins to the weighbridge system 2.3 Operate yard control systems for full cane bins according to operating procedures
3. Move empty cane bins	3.1 Handle bin supply to meet traffic schedule requirements 3.2 Re-couple or pin bins according to workplace procedures 3.3 Operate yard control systems for empty can bins according to operating procedures
4. Recognise and report unacceptable performance	4.1 Observe system operating conditions and identify causes of unacceptable performance 4.2 Report and fix yard derailments according to workplace requirements 4.3 Identify and remove bins requiring repair according to workplace requirements 4.4 Report system error messages and follow instructions to take corrective action according to workplace procedures

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"> <li>Interpret system and schedule information</li> </ul>
Writing	<ul style="list-style-type: none"> <li>Record information in required format</li> </ul>
Numeracy	<ul style="list-style-type: none"> <li>Count bins and bin movements</li> </ul>
Navigate the world of work	<ul style="list-style-type: none"> <li>Understand main tasks, responsibilities and boundaries of own role</li> </ul>
Interact with others	<ul style="list-style-type: none"> <li>Communicate with others according to workplace communication</li> </ul>

Skill	Description
	practices and systems
Get the work done	<ul style="list-style-type: none"><li>• Complete tasks in required sequence</li><li>• Implement standard solutions for routine problems</li><li>• Apply decision-making processes to control hazards in routine situations</li></ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPSUG1003 Move cane bins in a marshalling yard	FDFSUG103A Move cane bins in a marshalling yard	Updated to meet Standards for Training Packages  Minor changes to reflect AQF alignment	Equivalent unit

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# Assessment Requirements for FBPSUG1003 Move cane bins in a marshalling yard

## Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

## Performance Evidence

An individual demonstrating competency must satisfy all of the elements and performance criteria in this unit.

There must be evidence that the individual has moved cane bins in a marshalling yard in line with workplace contexts, and demonstrated each of the following points at least once:

- coupled and uncoupled cane bins safely to meet required length
- safely used personal protective equipment (PPE)
- reported safety hazards and maintenance requirements
- liaised with others using communication systems and equipment effectively
- checked yard capacity to direct cane bins to appropriate yard location
- handled the supply of full bins to the weighbridge system to meet cut-to-crush sequence
- moved empty cane bins
- operated the yard control system to its full potential
- identified and removed damaged bins
- reported and followed instructions to correct system error messages.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- function and location of signalling devices used to monitor cane bin movements
- functions and basic operating principles of equipment and systems
- cane yard system layout and line holding capacities
- implications of sub-optimal cut-to-crush times for mill performance and of disrupted supply
- key health and safety requirements in the workplace:
  - correct use of PPE
  - safe work procedures
  - hazards related to yard control associated control measures

- procedures for responding to emergency situations
- hand and audible communication signals for cane bin movement
- reporting and recording requirements relevant to cane bin movement.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - skills must be demonstrated in cane yards with related signalling and control systems, or an environment that accurately represents workplace conditions
- resources, equipment and materials:
  - loaded and empty bins
  - PPE
  - communication equipment
  - cane locos (excludes operation)
  - workplace information recording system
- specifications:
  - relevant codes of practice and industry standards
  - bin consignment and trip/cut-to-crush documentation
  - operating procedures and related advice on equipment operation
  - workplace information requirements and procedures, including safe work practices.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# FBPSUG1004 Check a cane sample for extraneous matter

## Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

## Application

This unit of competency describes the skills and knowledge required to undertake a basic visual and physical inspection of cane samples for extraneous matter upon arrival at a sugar mill.

The unit applies to individuals who work under supervision in the sugar milling industry.

All work must be carried out to comply with workplace procedures according to state/territory health and safety regulations, legislation and standards that apply to the workplace.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

## Pre-requisite Unit

Nil

## Unit Sector

Sugar milling (SUG)

## Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare to inspect cane	1.1 Select, fit and use personal protective equipment according to safe work practices 1.2 Identify and report health and safety hazards and maintenance requirements 1.3 Collect cane sample according to specifications



Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	1.4 Prepare weighing equipment for operation, and report faults as required
2. Identify extraneous matter in cane	2.1 Inspect and sort cane sample according to specifications 2.2 Check for extraneous matter in cane according to specifications 2.3 Record results of inspection according to workplace requirements

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Numeracy	<ul style="list-style-type: none"> <li>Calibrate and set tare and zero weighing equipment and interpret weight measurements</li> </ul>
Navigate the world of work	<ul style="list-style-type: none"> <li>Understand main tasks, responsibilities and boundaries of own role</li> </ul>
Interact with others	<ul style="list-style-type: none"> <li>Apply workplace communication practices relevant to own role</li> </ul>
Get the work done	<ul style="list-style-type: none"> <li>Completes tasks in required sequence</li> <li>Apply decision-making processes to control hazards in routine situations</li> </ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPSUG1004 Check a cane sample for extraneous matter	FDFSUG104A Check a cane sample for extraneous matter	Updated to meet Standards for Training Packages  Minor changes to reflect AQF alignment	Equivalent unit

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## Assessment Requirements for FBPSUG1004 Check a cane sample for extraneous matter

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

### Performance Evidence

An individual demonstrating competency must satisfy all of the elements and performance criteria in this unit.

There must be evidence that the individual has checked a cane sample for extraneous matter in line with workplace contexts and demonstrated each of the following points at least once:

- selected, fitted and used personal protective equipment (PPE)
- identified and reported health and safety hazards in the workplace
- identified and reported maintenance requirements
- collected and sorted cane samples
- conducted visual and physical inspection of cane and identified extraneous matter
- used weighing equipment and confirmed calibration
- recorded inspection results according to workplace requirements.

### Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- conditions and practices that affect the level of extraneous matter found in cane
- method and purpose of taring or zeroing weighing equipment and confirming calibration using check weights
- nature of extraneous matter typically found in cane
- purpose of extraneous matter test
- methods used to sort and calculate extraneous matter in a sample
- the effect of high levels of extraneous matter on downstream operations
- key health and safety requirements relating to checking cane samples in the workplace
- correct use of PPE when handling cane
- procedures for reporting faulty weighing equipment.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - skills must be demonstrated in a workplace or an environment that accurately represents workplace conditions
- resources, equipment and materials:
  - PPE
  - weighing equipment
  - workplace information recording system
- specifications:
  - workplace procedures for safe work practices
  - extraneous matter/quality specifications
  - operating procedures and related advice on equipment operation.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# FBPSUG1005 Manually clean and maintain housekeeping standards

## Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

## Application

This unit of competency describes the skills and knowledge required to carry out manual cleaning and housekeeping procedures.

The unit applies to individuals who work under supervision across all sectors of the sugar milling industry.

All work must be carried out to comply with workplace procedures according to state/territory health and safety regulations, legislation and standards that apply to the workplace.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

## Pre-requisite Unit

Nil

## Unit Sector

Sugar milling (SUG)

## Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare for cleaning	1.1 Prepare cleaning and sanitising agents, equipment and services for use according to workplace and safety requirements 1.2 Ensure equipment is safe to clean according to specifications

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
2. Manually clean equipment	2.1 Clean equipment to meet workplace requirements 2.2 Prepare equipment for sanitation after cleaning 2.3 Record cleaning data according to workplace procedures 2.4 Store agents and equipment according to workplace and safety procedures
3. Collect and dispose of waste	3.1 Sort and collect waste according to workplace procedures 3.2 Recycle and transfer waste for rework, further treatment or disposal
4. Maintain housekeeping standards of the work area	4.1 Check the work area for compliance with safety requirements 4.2 Ensure equipment and the work area meet workplace requirements

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Writing	<ul style="list-style-type: none"> <li>Record information in required format</li> </ul>
Numeracy	<ul style="list-style-type: none"> <li>Calculate quantities and ratios for mixing cleaning agents</li> </ul>
Navigate the world of work	<ul style="list-style-type: none"> <li>Understand main tasks, responsibilities and boundaries of own role</li> </ul>
Get the work done	<ul style="list-style-type: none"> <li>Completes tasks in required sequence</li> </ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status

FBPSUG1005 Manually clean and maintain housekeeping standards	FDFSUG105A Manually clean and maintain housekeeping standards	Updated to meet Standards for Training Packages  Minor edits to reflect AQF alignment	Equivalent unit
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## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# Assessment Requirements for FBPSUG1005 Manually clean and maintain housekeeping standards

## Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

## Performance Evidence

An individual demonstrating competency must satisfy all of the elements and performance criteria in this unit.

There must be evidence that the individual has manually cleaned and maintained housekeeping standards in line with workplace contexts, and demonstrated each of the following points at least once:

- prepared, used and stored equipment and agents for cleaning tasks
- safely cleaned and sanitised equipment
- recorded cleaning of equipment
- sorted, collected and disposed of waste
- checked that work meets housekeeping standards.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- basic purpose of cleaning, sanitising and housekeeping
- properties and uses of cleaning and sanitising agents
- methods used to make equipment safe to clean, including lock-out, tag-out and isolation procedures
- personal protective equipment (PPE) needed for carrying out required cleaning tasks
- workplace procedures for:
  - safe use of cleaning and sanitising equipment and chemicals, including safety data sheets
  - preparing cleaning and sanitising agents, including consequences of mixing incorrectly and combining incompatible chemicals
  - spill control and recycling or disposal of spilled materials, including environmental responsibilities under environmental legislation
- workplace standards and requirements for:



- handling and storage of cleaning agents and equipment
- cleaning equipment and the work area
- types of waste generated by the production and the cleaning process and related collection, treatment and disposal requirements.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - skills must be demonstrated in a workplace or an environment that accurately represents workplace conditions
- resources, equipment and materials:
  - PPE
  - cleaners, sanitisers and related equipment
  - equipment for cleaning
- specifications:
  - workplace procedures for safe work practices
  - equipment specifications
  - waste collection and treatment/disposal procedures
  - housekeeping standards.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## FBPSUG2001 Lay sleepers for cane rail systems

### Modification History

Release	Comments
Release 1	This version released with the FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

### Application

This unit of competency describes the skills and knowledge required to lay railway sleepers. It applies to constructing new track and repairing existing track in cane haulage systems.

The unit applies to individuals who work under supervision in the sugar milling industry.

All work must be carried out to comply with workplace procedures according to state/territory health and safety regulations, legislation and standards that apply to the workplace.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

### Pre-requisite Unit

Nil

### Unit Sector

Sugar milling (SUG)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Plan and prepare work	1.1 Identify the location and scope of work according to specifications 1.2 Confirm materials required to complete the work are available to specifications 1.3 Confirm equipment status and carry out pre-operational checks according to operating procedures

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	1.4 Select, fit and use personal protective equipment as required 1.5 Follow safety procedures to confirm that work is clearly signed, and relevant authorities are advised that work is in progress 1.6 Inspect site and remove hazards before commencing work
2. Lay sleepers	2.1 Position sleepers to meet track laying specifications 2.2 Space sleepers and align as required for track construction
3. Complete work	3.1 Clear the construction area of debris according to workplace procedures 3.2 Store unused materials according to workplace procedures 3.3 Clean and store tools, plant and equipment according to workplace requirements 3.4 Record workplace information according to workplace requirements

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Numeracy	<ul style="list-style-type: none"> <li>Estimate quantities of material requirements</li> </ul>
Navigate the world of work	<ul style="list-style-type: none"> <li>Understand responsibilities and boundaries of own role</li> </ul>
Interact with others	<ul style="list-style-type: none"> <li>Apply communication practices and protocols relevant to own role</li> <li>Use communications equipment to communicate workplace information</li> </ul>
Get the work done	<ul style="list-style-type: none"> <li>Complete tasks according to plan</li> <li>Apply decision-making processes to control hazards in routine situations</li> </ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPSUG2001 Lay sleepers for cane rail systems	FDFSUG201A Lay sleepers for cane rail systems	Updated to meet Standards for Training Packages	Equivalent unit

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# Assessment Requirements for FBPSUG2001 Lay sleepers for cane rail systems

## Modification History

Release	Comments
Release 1	This version released with the FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

## Performance Evidence

An individual demonstrating competency must satisfy all of the elements and performance criteria in this unit.

There must be evidence that the individual has laid sleepers for cane rail systems in line with workplace contexts and demonstrated each of the following points at least once:

- carried out pre-operational checks of equipment
- estimated material requirements
- applied safety procedures to prepare work area
- selected, fitted and used personal protective equipment (PPE)
- laid, positioned and aligned sleepers to specifications
- correctly communicated workplace information using available communications equipment
- recorded sleeper laying information
- cleared the work area and completed cleaning and storage tasks according to workplace requirements.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- site operating procedures and practices for construction of railway systems
- steps involved in laying and repairing sleepers
- functions and basic operating principles of equipment used for laying sleepers
- impact of the positioning and alignment of sleepers on related track laying operations
- quality requirements of sleepers for use in rail systems
- common problems related to laying sleepers, and corrective action
- key health and safety requirements in the workplace:
  - health and safety hazards and associated control measures
  - manual handling procedures for railway system construction

- correct use of PPE
- traffic control signage and communication procedures for railway system construction.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - skills must be demonstrated in a cane railway system or an environment that accurately represents workplace conditions
- resources, equipment and materials:
  - materials handling equipment and relevant hand and power tools
  - sleepers and related materials
  - PPE
  - communications equipment
  - workplace information recording system
- specifications:
  - specifications, site and related project information
  - operating procedures and related advice on equipment operation
  - workplace procedures, including safe work practices.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## FBPSUG2002 Lay rails for cane rail systems

### Modification History

Release	Comments
Release 1	This version released with the FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

### Application

This unit of competency describes the skills and knowledge required to prepare and lay rails in sugar cane haulage systems. It relates to construction of new track and repair of existing track that has been pre-welded to meet track design and construction specifications.

The unit applies to individuals who work under supervision in the sugar milling industry.

All work must be carried out to comply with workplace procedures according to state/territory health and safety regulations, legislation and standards that apply to the workplace.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

### Pre-requisite Unit

Nil

### Unit Sector

Sugar milling (SUG)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Plan and prepare work	1.1 Identify the location and scope of work according to specifications 1.2 Confirm and prepare materials required to complete the work to specifications 1.3 Carry out pre-operational checks, confirm operational status of equipment, and report any faults

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	1.4 Select, fit and use personal protective equipment as required 1.5 Confirm that work is clearly signed according to safety procedures and that relevant authorities have been advised that work is in progress 1.6 Identify and remove potential hazards from construction area before commencing work
2. Lay rails	2.1 Position and align rail lengths to construction specifications 2.2 Fix rail lengths according to construction specifications
3. Complete work	3.1 Clear the construction area of debris according to workplace procedures 3.2 Store unused materials according to workplace procedures 3.3 Clean and store tools, plant and equipment according to workplace requirements 3.4 Record workplace information according to workplace requirements

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Numeracy	<ul style="list-style-type: none"> <li>Estimate quantities of material requirements</li> </ul>
Navigate the world of work	<ul style="list-style-type: none"> <li>Understand responsibilities and boundaries of own role</li> </ul>
Interact with others	<ul style="list-style-type: none"> <li>Apply communication practices and protocols relevant to own role</li> </ul>
Get the work done	<ul style="list-style-type: none"> <li>Complete tasks according to plan</li> <li>Apply decision-making processes to control hazards in routine situations</li> </ul>



## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPSUG2002 Lay rails for cane rail systems	FDFSUG202A Lay rails for cane rail systems	Updated to meet Standards for Training Packages	Equivalent unit

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# Assessment Requirements for FBPSUG2002 Lay rails for cane rail systems

## Modification History

Release	Comments
Release 1	This version released with the FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

## Performance Evidence

An individual demonstrating competency must satisfy all of the elements and performance criteria in this unit.

There must be evidence that the individual has laid rails in line with workplace contexts and demonstrated each of the following points at least once:

- completed pre-operational checks of equipment and materials needed for rail laying
- applied safety procedures to prepare work area
- correctly selected, fitted and used personal protective equipment (PPE)
- confirmed rail lengths meet required design and construction specifications
- positioned and fixed rails to specification
- recorded rail laying information
- correctly communicated workplace information to relevant authorities
- cleared the work area and completed cleaning and storage tasks according to workplace requirements.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- site operating procedures and practices for construction of railway systems
- steps in laying/repairing track
- functions and operating principles of track laying equipment
- the impact of the positioning and alignment of rails on related track laying operations
- the quality requirements of rails for use in rail systems
- common problems related to laying rails, and corrective action
- key health and safety requirements in the workplace:
  - safe work procedures
  - hazards related to track laying, and associated control measures
  - manual handling procedures for rail system construction

- correct use of PPE
- traffic control signage and communication procedures for rail system construction.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - skills must be demonstrated in a cane rail system or an environment that accurately represents workplace conditions
- resources, equipment and materials:
  - materials handling equipment and relevant hand and power tools
  - rails and related materials
  - PPE
  - workplace information recording system
- specifications:
  - specifications, site and related project information
  - operating procedures and related advice on equipment operation
  - workplace procedures for safe work practices.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## FBPSUG2003 Lay skeleton track for cane rail system

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

### Application

This unit of competency describes the skills and knowledge required to prepare and lay pre-fabricated rails in sugar cane haulage systems. It relates to construction of new track, and repair of existing track that has been pre-welded to meet track design and construction specifications.

The unit applies to individuals who work under supervision in the sugar milling industry.

All work must be carried out to comply with workplace procedures according to state/territory health and safety regulations, legislation and standards that apply to the workplace.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

### Pre-requisite Unit

Nil

### Unit Sector

Sugar milling (SUG)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Plan and prepare work	1.1 Identify the location and scope of work according to specifications 1.2 Confirm and prepare materials required to complete the work are available to specifications 1.3 Carry out pre-operational checks, confirm operational status of

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	equipment, and report any faults 1.4 Select, fit and use personal protective equipment as required 1.5 Confirm that work is clearly signed according to safety procedures and that relevant authorities have been advised that work is in progress 1.6 Identify and remove potential hazards from construction area before commencing work
2. Lay and fix skeleton tracks	2.1 Position skeleton track section on base foundation and align to meet construction specifications 2.2 Fix rail lengths according to construction specifications
3. Complete work	3.1 Clear the construction area of debris according to workplace procedures 3.2 Store unused materials according to workplace procedures 3.3 Clean and store tools, plant and equipment according to workplace requirements 3.4 Record workplace information according to workplace requirements

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Numeracy	<ul style="list-style-type: none"> <li>Estimate quantities of material requirements</li> </ul>
Navigate the world of work	<ul style="list-style-type: none"> <li>Understand responsibilities and boundaries of own role</li> </ul>
Interact with others	<ul style="list-style-type: none"> <li>Apply communication practices and protocols relevant to own role</li> <li>Use communications equipment to communicate workplace information</li> </ul>
Get the work done	<ul style="list-style-type: none"> <li>Complete tasks according to plan</li> <li>Apply decision-making processes to control hazards in routine situations</li> </ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPSUG2003 Lay skeleton track for cane rail system	FDFSUG203A Lay skeleton track for cane rail system	Updated to meet Standards for Training Packages	Equivalent unit

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# Assessment Requirements for FBPSUG2003 Lay skeleton track for cane rail system

## Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

## Performance Evidence

An individual demonstrating competency must satisfy all of the elements and performance criteria in this unit.

There must be evidence that the individual has laid skeleton track for a cane rail system in line with workplace contexts and demonstrated each of the following points at least once:

- confirmed rail lengths meet required design and construction specifications
- carried out pre-operational checks of equipment
- estimated and prepared required materials
- applied safety procedures to prepare work area
- positioned and fixed skeleton track to specification
- correctly communicated workplace information using available communications equipment
- recorded track laying information
- cleared the work area and completed cleaning and storage tasks according to workplace requirements.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- site operating procedures and practices for construction of railway systems
- steps involved in laying and fixing skeleton track
- functions and basic operating principles of equipment used in laying skeleton track
- the importance of rail positioning and alignment on track quality and performance
- the quality requirements of skeleton tracks for use in rail systems
- common problems related to laying skeleton tracks, and corrective action
- key health and safety requirements in the workplace:
  - safe work procedures
  - hazards related to track laying, and associated control measures

- manual handling procedures for rail system construction
- correct use of personal protective equipment (PPE)
- traffic control signage and communication procedures for rail system construction
- workplace cleaning standards for the work area.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - skills must be demonstrated in a cane rail system or an environment that accurately represents workplace conditions
- resources, equipment and materials:
  - materials handling equipment and relevant hand and power tools
  - rails and related materials
  - PPE
  - communications equipment
  - workplace information recording system
- specifications:
  - specifications, site and related project information
  - operating procedures and related advice on equipment operation
  - workplace procedures for safe work practices.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>



# FBPSUG2004 Operate tamping equipment

## Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

## Application

This unit of competency describes the skills and knowledge required to operate tamping equipment used to lift and pack track in sugar cane haulage systems. It relates to construction of new track and repair of existing track that has been pre-welded to meet track design and construction specifications.

The unit applies to individuals who work under supervision in the sugar milling industry.

All work must be carried out to comply with workplace procedures according to state/territory health and safety regulations, legislation and standards that apply to the workplace.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

## Pre-requisite Unit

Nil

## Unit Sector

Sugar milling (SUG)

## Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Plan and prepare work	1.1 Identify the location and scope of work according to specifications 1.2 Confirm and prepare materials required to complete the work to specifications 1.3 Carry out pre-operational checks, confirm operational status of

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	<p>equipment, and report any faults</p> <p>1.4 Select and fit personal protective equipment as required</p> <p>1.5 Confirm that work is clearly signed according to safety procedures and that relevant authorities have been advised that work is in progress</p> <p>1.6 Identify and remove potential hazards from construction area before commencing work</p>
2. Operate tamping equipment	<p>2.1 Operate ballast hopper to supply an even flow of ballast to the specified thickness</p> <p>2.2 Operate tamper equipment to lift, line track and pack ballast to specification</p> <p>2.3 Dress track by final ballast spread and trim to meet the specified profile</p> <p>2.4 Check track to confirm that design and construction specifications are met</p>
3. Analyse and respond to abnormal performance	<p>3.1 Identify causes of abnormal performance from operating data and plant operating conditions</p> <p>3.2 Identify and report hazards according to workplace safety requirements</p> <p>3.3 Take corrective action to rectify abnormal performance according to workplace procedures</p> <p>3.4 Implement emergency procedures according to workplace safety procedures</p>
4. Complete work	<p>4.1 Clear the construction area of debris according to workplace procedures</p> <p>4.2 Store unused materials according to workplace procedures</p> <p>4.3 Shut down and park equipment according to operating procedures</p> <p>4.4 Clean and store tools, plant and equipment according to workplace procedures</p> <p>4.5 Record workplace information according to workplace requirements</p>

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Numeracy	<ul style="list-style-type: none"><li>Estimate quantities of material requirements</li></ul>
Navigate the world of work	<ul style="list-style-type: none"><li>Understand main tasks, responsibilities and boundaries of own role</li><li>Apply workplace procedures relevant to own role</li></ul>
Interact with others	<ul style="list-style-type: none"><li>Apply communication practices and protocols relevant to own role</li></ul>
Get the work done	<ul style="list-style-type: none"><li>Complete tasks according to plan</li><li>Apply decision-making processes to control hazards and respond to abnormal situations</li></ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPSUG2004 Operate tamping equipment	FDFSUG204A Operate tamping equipment	Updated to meet Standards for Training Packages	Equivalent unit

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# Assessment Requirements for FBPSUG2004 Operate tamping equipment

## Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

## Performance Evidence

An individual demonstrating competency must satisfy all of the elements and performance criteria in this unit.

There must be evidence that the individual has operated tamping equipment, in line with workplace contexts and demonstrated each of the following points at least once:

- checked operation of tamper equipment and identified and reported faults
- prepared materials for tamping operation
- applied safety procedures to prepare work area
- safely operated tamper to apply and compact ballast and lift and align track to specification
- correctly communicated workplace information to relevant authorities
- corrected abnormal or unacceptable tamping
- recorded track laying information
- cleared the work area and completed cleaning and storage tasks according to workplace requirements.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- site operating procedures and practices for construction and repair of railway systems
- steps in constructing/repairing track
- functions and operating principles of tamper equipment, including the layout and purpose of major air, hydraulic, mechanical and electrical systems relevant to equipment
- required operational checks and operating capacity of equipment
- track construction specifications
- the impact of tamper operation on track laying operations
- factors that can affect the tamper operation
- common problems related to tamping and corrective action

- key health and safety requirements for railway system construction in the workplace:
  - health and safety hazards and associated control measures
  - manual handling procedures
  - correct use of personal protective equipment (PPE)
- traffic control signage and communication procedures relevant to railway system construction
- workplace cleaning standards for the work area.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - skills must be demonstrated in a cane rail system or an environment that accurately represents workplace conditions
- resources, equipment and materials:
  - materials handling equipment and relevant hand and power tools
  - tamping equipment and related equipment
  - ballast
  - trackwork
  - PPE
  - workplace information recording system
- specifications:
  - specifications, site and related project information
  - operating procedures and related advice on tamping equipment operation
  - workplace procedures for safe work practices.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## FBPSUG2005 Construct turnouts

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

### Application

This unit of competency describes the skills and knowledge required to construct turnouts in sugar cane haulage systems. It relates to construction of new turnouts and repair of existing turnouts.

The unit applies to individuals who work under supervision in the sugar milling industry.

All work must be carried out to comply with workplace procedures according to state/territory health and safety regulations, legislation and standards that apply to the workplace.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

### Pre-requisite Unit

Prerequisite unit of competency for this unit is:

- FBPSUG2002 Lay rails for cane rail systems

### Unit Sector

Sugar milling (SUG)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Plan and prepare work	1.1 Identify the location and scope of work according to specifications 1.2 Confirm and prepare materials required to complete the work to specifications 1.3 Carry out pre-operational checks, confirm operational status of

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	equipment, and report any faults 1.4 Select, fit and use personal protective equipment as required 1.5 Confirm that work is clearly signed according to safety procedures and that relevant authorities have been advised that work is in progress 1.6 Identify and remove potential hazards from construction area before commencing work
2. Construct turnouts	2.1 Position sleepers for turnouts in required position for track junctions 2.2 Fix base plates for switching to sleepers in specified locations 2.3 Position and fit switch rails to specification 2.4 Install switching gear to specification
3. Complete work	3.1 Clear the construction area of debris according to workplace procedures 3.2 Store unused materials according to workplace procedures 3.3 Clean and store tools, plant and equipment according to workplace requirements 3.4 Record workplace information according to workplace requirements

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Numeracy	<ul style="list-style-type: none"> <li>Estimate quantities of material requirements</li> <li>Count materials and fixings</li> </ul>
Navigate the world of work	<ul style="list-style-type: none"> <li>Understand main tasks, responsibilities and boundaries of own role</li> <li>Apply workplace procedures relevant to own role</li> </ul>
Interact with others	<ul style="list-style-type: none"> <li>Apply communication practices and protocols relevant to own role</li> </ul>
Get the work done	<ul style="list-style-type: none"> <li>Complete tasks according to plan</li> </ul>

Skill	Description
	<ul style="list-style-type: none"><li>Apply decision-making processes to control hazards in routine situations</li></ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPSUG2005 Construct turnouts	FDFSUG205A Construct turnouts	Updated to meet Standards for Training Packages	Equivalent unit

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>



## Assessment Requirements for FBPSUG2005 Construct turnouts

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

### Performance Evidence

An individual demonstrating competency must satisfy all of the elements and performance criteria in this unit.

There must be evidence that the individual has constructed turnouts in line with workplace contexts and demonstrated each of the following points at least once:

- carried out operational checks of equipment
- estimated material requirements
- applied safety procedures to prepare work area
- selected, fitted and used personal protective equipment (PPE)
- prepared sleepers for turnout construction
- confirmed that switching gear is operational
- safely operated track laying equipment, related attachments, hand tools and pneumatic tools for track laying
- constructed turnouts to specification
- correctly communicated workplace information to relevant authorities
- cleared the work area, and completed cleaning and storage tasks according to housekeeping requirements
- recorded turnouts information.

### Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- track system layout and characteristics of each section
- functions and operating principles of equipment used for rail track construction
- the impact of turnout construction on related track laying operations
- factors that can affect turnout construction
- key health and safety requirements in the workplace:
  - health and safety hazards and associated control measures
  - manual handling procedures for rail system construction

- correct use of PPE
- traffic control signage and communication procedures for rail system construction
- workplace cleaning standards for the work area.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - skills must be demonstrated in a cane rail system or an environment that accurately represents workplace conditions
- resources, equipment and materials:
  - PPE
  - materials handling equipment and relevant hand and power tools
  - turnout construction equipment
  - trackwork
  - switching gear
  - workplace information recording system
- specifications:
  - specifications, site and related project information
  - operating procedures and related advice on equipment operation
  - workplace procedures for safe work practices.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## FBPSUG2006 Collect and prepare samples

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

### Application

This unit of competency describes the skills and knowledge required to collect and prepare a range of samples during the sugar milling process.

The unit applies to individuals typically with primary responsibility for sampling and/or testing.

All work must be carried out to comply with workplace procedures according to state/territory health and safety regulations, legislation and standards that apply to the workplace.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

### Pre-requisite Unit

Nil

### Unit Sector

Sugar milling (SUG)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare for sampling	1.1 Identify sampling requirements from sampling plan 1.2 Select sampling method to suit sampling requirement according to workplace procedures 1.3 Select, fit and use personal protective equipment according to workplace procedures

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	1.4 Confirm that sampling chemicals, tools and containers are available and fit for use
2. Collect and prepare samples	2.1 Collect samples safely according to workplace procedures 2.2 Identify and report observations of non-conformances made during sampling 2.3 Store and handle samples to preserve characteristics of sample 2.4 Prepare samples safely as required by sampling procedure 2.5 Clean, care for and store equipment according to workplace procedures 2.6 Treat, recycle or dispose of sample materials according to workplace procedures
3. Record sampling information	3.1 Check and document sampling information according to workplace procedures 3.2 Label sample according to workplace procedures

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"> <li>Interpret standard operating procedures, specifications, sampling schemes and schedules</li> </ul>
Writing	<ul style="list-style-type: none"> <li>Record information accurately in required format</li> </ul>
Numeracy	<ul style="list-style-type: none"> <li>Calculate quantities of preservatives for sample preparation</li> </ul>
Navigate the world of work	<ul style="list-style-type: none"> <li>Understand main tasks, responsibilities and boundaries of own role</li> <li>Apply workplace procedures relevant to own role</li> </ul>
Get the work done	<ul style="list-style-type: none"> <li>Complete tasks in logical order</li> </ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPSUG2006 Collect and prepare samples	FDFSUG225A Collect and prepare samples	Updated to meet Standards for Training Packages	Equivalent unit

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# Assessment Requirements for FBPSUG2006 Collect and prepare samples

## Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

## Performance Evidence

An individual demonstrating competency must satisfy all of the elements and performance criteria in this unit.

There must be evidence that the individual has collected and prepared cane samples in line with workplace contexts and demonstrated each of the following points at least once:

- accessed the sampling plan to identify sampling requirements
- selected, fitted and used personal protective equipment (PPE)
- selected appropriate sampling method
- applied safe sample collection and preparation procedures
- labelled samples correctly
- maintained and stored chemicals, containers and sampling tools
- reported any obvious non-conformances
- recorded sampling information
- sorted, collected, treated, recycled or disposed of sample material.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- purpose of a sampling plan, including the nature of representative samples and the importance of maintaining the integrity of samples
- terminology relating to specific sample collection, and preparation methods and procedures
- types of samples and related methods used to collect and prepare them
- inspection points for sampling
- typical characteristics of materials sampled and common contaminants
- sample labelling requirements
- hazards with specific sampling requirements, including working with equipment under pressure and at high temperatures

- storage of chemicals used for sampling
- sampling regimes implemented in response to special causes or non-conformance
- sample disposal procedures
- reporting and recording requirements for samples.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - skills must be demonstrated in a sugar milling workplace or an environment that accurately represents workplace conditions
- resources, equipment and materials:
  - PPE
  - sampling schedule
  - sampling tools, chemicals, containers and related equipment
  - materials to be sampled
  - sample preparation equipment
  - sample labelling and recording system
- specifications:
  - sampling methods and procedures
  - workplace procedures, including advice on safe work practices and environmental requirements.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## FBPSUG2007 Conduct cane weighbridge operations

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

### Application

This unit of competency describes the skills and knowledge required to set up and operate a weighbridge to weigh and record incoming cane deliveries in sugar milling operations.

The unit applies to individuals who work under supervision in the sugar milling industry.

All work must be carried out to comply with workplace procedures according to state/territory health and safety regulations, legislation and standards that apply to the workplace.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

### Pre-requisite Unit

Nil

### Unit Sector

Sugar milling (SUG)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Set up weighbridge operations	1.1 Check weighbridge systems, including equipment, computer and recording arrangements, for operational status 1.2 Conduct tests to confirm accuracy of weighbridge operations and related functions in accordance with enterprise procedures, manufacturer's instructions and relevant statutory requirements 1.3 Keep accurate reporting of the results of the inspection and testing



Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	<p>according to workplace procedures</p> <p>1.4 Identify hazards and faults/discrepancies in weighbridge operation and undertake action according to workplace requirements</p>
2. Weigh loaded vehicles/bins	<p>2.1 Select, fit and use personal protective equipment according to safe work practices</p> <p>2.2 Reject bins exceeding weight limit</p> <p>2.3 Register weight of loaded bins or vehicles against bin identification</p> <p>2.4 Calculate net weight of bins and vehicles</p> <p>2.5 Record bins or vehicles and cane type according to workplace procedures</p>
3. Prepare for shift changeover	<p>3.1 Secure weighbridge systems, including equipment, computer and recording arrangements, or make ready for the next shift</p> <p>3.2 Maintain records of operations and file according to workplace procedures</p> <p>3.3 Undertake shift changeover according to workplace procedures</p> <p>3.4 Inform incoming weighbridge operators of weighbridge and related equipment status procedures</p>

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"> <li>Interpret workplace requirements, standard operating procedures and specifications relevant to job role</li> </ul>
Numeracy	<ul style="list-style-type: none"> <li>Check and confirm operational status of equipment and calibration of weighbridges using test weights</li> </ul>
Navigate the world of work	<ul style="list-style-type: none"> <li>Understand main tasks, responsibilities and boundaries of own role</li> <li>Apply workplace procedures relevant to own role</li> </ul>

Skill	Description
Interact with others	<ul style="list-style-type: none"><li>• Apply communication practices and protocols relevant to own role</li></ul>
Get the work done	<ul style="list-style-type: none"><li>• Complete tasks in required sequence</li><li>• Apply decision-making processes to control hazards in routine situations</li></ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPSUG2007 Conduct cane weighbridge operations	FDFSUG207A Conduct cane weighbridge operations	Updated to meet Standards for Training Packages	Equivalent unit

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# Assessment Requirements for FBPSUG2007 Conduct cane weighbridge operations

## Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

## Performance Evidence

An individual demonstrating competency must satisfy all of the elements and performance criteria in this unit.

There must be evidence that the individual has conducted cane weighbridge operations in line with workplace contexts and demonstrated each of the following points at least once:

- checked and tested accuracy of weighbridge equipment
- correctly selected, fitted and used personal protective equipment (PPE)
- accurately weighed loaded vehicles/bins
- calculated net weights and identified overweight loads
- completed and maintained accurate weighbridge operation records
- confirmed status of weighbridge and related equipment at start-up
- conducted shift changeover.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- functions and operating principles of weighbridge and related equipment components
- cut-to-crush sequence
- relationship between the weighbridge and downstream operations
- purpose and procedures for testing accuracy of weighbridge using test weights
- method to calculate net bin weight
- legislation relating to cane payment as it affects weighing and sampling, and weights and measures legislation
- key health and safety requirements in the workplace:
  - health and safety hazards and associated control measures
  - manual handling procedures relevant to weighbridge operations
  - correct use of PPE.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - skills must be demonstrated in a sugar milling workplace or an environment that accurately represents workplace conditions
- resources, equipment and materials:
  - weighbridge and related equipment
  - loaded cane bins
  - PPE
  - workplace information recording system
- specifications:
  - relevant codes of practice and industry standards
  - operating procedures and related advice on equipment operation
  - workplace procedures for safe work practices.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## FBPSUG2008 Operate a tipping station

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

### Application

This unit of competency describes the skills and knowledge required to unload cane bins into a sugar mill feeding station.

The unit applies to individuals who work under supervision in the sugar milling industry.

All work must be carried out to comply with workplace procedures according to state/territory health and safety regulations, legislation and standards that apply to the workplace.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

### Pre-requisite Unit

Nil

### Unit Sector

Sugar milling (SUG)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare the tipping station for operation	1.1 Select, fit and use personal protective equipment as required 1.2 Carry out pre-operational checks, confirm operational status, and report any faults according to workplace procedures 1.3 Identify and report health and safety hazards and operational maintenance requirements according to workplace procedures

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
2. Start and monitor tipping	2.1 Check bin contents and report obvious signs of contamination 2.2 Tip cane according to workplace procedures, maintaining supply of cane to the mill 2.3 Operate plant within prescribed limits of manufacturer's specifications 2.4 Monitor equipment to confirm operating condition and report operating faults or defects according to workplace procedures
3. Analyse and respond to abnormal conditions and performance	3.1 Monitor tipping plant operation and identify abnormal conditions and performance 3.2 Identify causes of abnormal conditions and performance 3.3 Take corrective action in response to hazards and abnormal plant performance in accordance with workplace procedures 3.4 Implement emergency procedures according to workplace safety procedures
4. Prepare for shift changeover	4.1 Record tipping operation information according to workplace requirements 4.2 Carry out shift changeover according to workplace procedures 4.3 Notify incoming yard control operators of yard and related equipment status
5. Shut down the tipping station	5.1 Safely shut down the tipping station according to workplace procedures 5.2 Collect, treat and dispose of or recycle waste according to workplace procedures environmental guidelines 5.3 Identify and report maintenance requirements according to workplace procedures

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
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Skill	Description
Reading	<ul style="list-style-type: none"> <li>Interpret workplace and standard operating procedures relevant to job role</li> </ul>
Numeracy	<ul style="list-style-type: none"> <li>Count bin quantities and rate of tipping</li> </ul>
Navigate the world of work	<ul style="list-style-type: none"> <li>Apply workplace procedures to own role and responsibilities</li> <li>Understand main tasks, responsibilities and boundaries of own role</li> </ul>
Interact with others	<ul style="list-style-type: none"> <li>Apply communication practices and protocols relevant to own role</li> </ul>
Get the work done	<ul style="list-style-type: none"> <li>Complete tasks in required sequence</li> <li>Apply decision-making processes to respond to abnormal performance of tipping plant</li> </ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPSUG2008 Operate a tipping station	FDFSUG208A Operate a tipping station	Updated to meet Standards for Training Packages	Equivalent unit

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# Assessment Requirements for FBPSUG2008 Operate a tipping station

## Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

## Performance Evidence

An individual demonstrating competency must satisfy all of the elements and performance criteria in this unit.

There must be evidence that the individual has operated a tipping station in line with workplace contexts and demonstrated each of the following points at least once:

- correctly carried out pre-operational checks
- selected, fitted and used personal protective equipment (PPE)
- operated plant to tip cane according to specifications
- monitored tipping process to maintain a full carrier
- took corrective action in response to abnormal or unacceptable performance
- completed all requirements for shift handover tipping process
- completed tipping operation records
- safely shut down operation and dealt with waste
- identified faulty bins and equipment and arranged transfer for repair.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- functions and basic operating principles of tipping process and related control system and equipment components
- consequences of tipping contaminated cane
- typical faults in cane bins that affect haulage and tipping operations
- acceptable bin and rake condition, and procedure for tagging and reporting bins requiring repair
- key health and safety requirements in the workplace:
  - health and safety hazards related to tipping operation, and associated control measures
  - manual handling procedures for tipping station operations
  - correct use of PPE



- procedures for responding to emergency situations
- reporting and recording requirements relevant to tipping station operations.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - skills must be demonstrated in a sugar milling workplace or an environment that accurately represents workplace conditions
- resources, equipment and materials:
  - tipping process, milling train and related equipment
  - loaded cane bins
  - PPE
  - workplace information recording system
- specifications:
  - operating procedures and related advice on equipment operation
  - workplace procedures, including safe work practices and environmental requirements.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## FBPSUG2009 Operate an extraction station

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

### Application

This unit of competency describes the skills and knowledge required to prepare and operate an extraction station in sugar cane operation.

The unit applies to individuals who work under supervision in the sugar milling industry and who are competent to operate turbines and reciprocating engines where required.

All work must be carried out to comply with workplace procedures according to state/territory health and safety regulations, legislation and standards that apply to the workplace.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

### Pre-requisite Unit

Nil

### Unit Sector

Sugar milling (SUG)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare the extraction process for operation	1.1 Confirm cane is available to meet production requirements 1.2 Confirm services are available and ready for operation 1.3 Check equipment in readiness for use according to operating specifications

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	1.4 Select, fit and use personal protective equipment as required 1.5 Set the extraction process to meet production requirements
2. Operate and monitor the extraction process	2.1 Start and operate the extraction process according to operating procedures 2.2 Confirm process performance is maintained within specification 2.3 Ensure bagasse quality meets specifications 2.4 Monitor equipment to confirm operating condition 2.5 Identify, rectify or report bagasse, process and equipment non-conformance according to workplace procedures
3. Hand over the extraction station	3.1 Maintain workplace records according to workplace requirements 3.2 Carry out shift changeover according to workplace procedures 3.3 Ensure extraction station operators are aware of system and related equipment status at completion of handover
4. Shut down the extraction system	4.1 Identify the appropriate shutdown procedure for operational and long-term shutdown conditions 4.2 Safely shut down the extraction system according to operating specifications and workplace procedures 4.3 Prepare the extraction system for storage in shutdown mode 4.4 Identify and report operational maintenance requirements according to workplace procedures

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"> <li>Interpret workplace and standard operating procedures and production requirements relevant to job role</li> </ul>
Writing	<ul style="list-style-type: none"> <li>Record maintenance, handover and shutdown information in required format</li> </ul>

Skill	Description
Numeracy	<ul style="list-style-type: none"><li>Interpret production and process control indicators and data</li></ul>
Navigate the world of work	<ul style="list-style-type: none"><li>Follow workplace procedures applicable to own role and responsibilities</li><li>Understand main tasks, responsibilities and boundaries of own role</li></ul>
Interact with others	<ul style="list-style-type: none"><li>Apply communication practices and protocols relevant to own role</li></ul>
Get the work done	<ul style="list-style-type: none"><li>Complete tasks in required sequence</li><li>Apply decision-making processes to respond to routine performance abnormalities</li></ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPSUG2009 Operate an extraction station	FDFSUG209A Operate an extraction station	Updated to meet Standards for Training Packages	Equivalent unit

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# Assessment Requirements for FBPSUG2009 Operate an extraction station

## Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

## Performance Evidence

An individual demonstrating competency must satisfy all of the elements and performance criteria in this unit.

There must be evidence that the individual has operated an extraction station in line with workplace contexts and demonstrated each of the following points at least once:

- confirmed availability of equipment, services and cane to meet production requirements
- selected, fitted and used personal protective equipment (PPE)
- safely started up and monitored supply and flow of cane to the process, and bagasse and juice from the process
- monitored the process and equipment operation
- took corrective action in response to typical operating faults and product and process non-conformance
- reported and recorded process and production data
- conducted shift changeover procedure
- shut down equipment in both automatic and manual modes and reported maintenance requirements.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- purpose and principles of extraction, including shredder operation, mills and diffusers as required in the workplace
- the flow of this process and the relationship between extraction, boilers and evaporation
- the effect of cane quality, added water and mill operation on extraction
- consequences of poor lubrication
- the role of cooling water for equipment operation
- quality characteristics of bagasse and their effect on boiler operation

- equipment purpose and basic operating principles of extraction equipment
- significance and method of monitoring control points within the process
- common causes of variation, and corrective action required
- key health and safety requirements when operating an extraction station in the workplace:
  - hazards and associated control measures
  - manual handling procedures
  - correct use of PPE
  - procedures for responding to emergency situations
  - lock-out and tag-out procedures
- requirements of operational and long-term shutdown conditions to ensure the equipment is left in a safe state for the period of the shutdown and to minimise any delays in future start-up
- procedures and responsibility for reporting problems associated with the extraction process
- environmental and waste handling requirements and procedures for the extraction process.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - skills must be demonstrated in a sugar milling workplace or an environment that accurately represents workplace conditions
- resources, equipment and materials:
  - PPE
  - extraction station equipment
  - materials and services required for operating an extraction station
  - workplace information recording system
  - maintenance tools
- specifications:
  - workplace and operating procedures and related advice on equipment operation, including advice on safe work practices and environmental requirements
  - product and process specifications and operating parameters
  - sampling schedule and procedures.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## FBPSUG2010 Operate a juice clarification process

### Modification History

Release	Comments
Release 1	This version released with the FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

### Application

This unit of competency describes the skills and knowledge required to operate a juice clarification process from the juice tanks through to the clarifiers.

The unit applies to individuals who work under supervision in the sugar milling industry.

All work must be carried out to comply with workplace procedures according to state/territory health and safety regulations, legislation and standards that apply to the workplace.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

### Pre-requisite Unit

Nil

### Unit Sector

Sugar milling (SUG)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare the clarification process for operation	1.1 Confirm raw juice is available to meet production requirements 1.2 Confirm services are available and ready for operation 1.3 Check equipment in readiness for use according to operating specifications

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	1.4 Select, fit and use personal protective equipment as required 1.5 Set the clarification process to meet production requirements
2. Operate and monitor the clarification process	2.1 Start and operate the clarification process according to operating procedures 2.2 Confirm process performance is maintained within specification 2.3 Ensure clarified product meets specifications 2.4 Monitor equipment to confirm operating condition 2.5 Identify, rectify or report product, process and equipment non-conformance according to workplace procedures
3. Hand over the clarification process	3.1 Maintain workplace records according to workplace procedures 3.2 Carry out shift changeover according to workplace procedures 3.3 Ensure clarification operators are aware of system and related equipment status at completion of handover
4. Shut down the clarification process	4.1 Identify the appropriate shutdown procedure for operational and long-term shutdown conditions 4.2 Safely shut down the clarification system according to operating specifications and workplace procedures 4.3 Prepare the clarification system for storage in shutdown mode 4.4 Identify and report operational maintenance requirements according to workplace procedures

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"> <li>Interpret production requirements, workplace and standard operating procedures relevant to job role</li> <li>Interpret production requirements</li> </ul>
Numeracy	<ul style="list-style-type: none"> <li>Interpret production and process control indicators and data</li> </ul>



Skill	Description
Navigate the world of work	<ul style="list-style-type: none"><li>Follow workplace procedures applicable to own role and responsibilities</li><li>Understand main tasks, responsibilities and boundaries of own role</li></ul>
Interact with others	<ul style="list-style-type: none"><li>Apply communication practices and protocols relevant to own role</li></ul>
Get the work done	<ul style="list-style-type: none"><li>Complete tasks in required sequence</li><li>Apply decision-making processes to respond to abnormal performance</li></ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPSUG2010 Operate a juice clarification process	FDFSUG210A Operate a juice clarification process	Updated to meet Standards for Training Packages	Equivalent unit

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## Assessment Requirements for FBPSUG2010 Operate a juice clarification process

### Modification History

Release	Comments
Release 1	This version released with the FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

### Performance Evidence

An individual demonstrating competency must satisfy all of the elements and performance criteria in this unit.

There must be evidence that the individual has operated a juice clarification process in line with workplace contexts and demonstrated each of the following points at least once:

- checked availability of raw juice and services
- conducted pre-start checks on machinery used for clarification
- selected, fitted and used personal protective equipment (PPE)
- safely operated, monitored and adjusted the process from the juice tanks through to the clarifiers
- recorded process and production information
- taken corrective action in response to typical operating faults and product and process non-conformance
- conducted shift changeover procedure
- shut down the process in both automatic and manual modes and reported maintenance requirements.

### Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- purpose and principles of clarification, including heating, liming, juice degasification, saccharate and flocculant addition
- the flow of the process and the relationship to related processes, including the consequences of poor clarification on downstream processes
- equipment purpose and basic operating requirements of juice clarification equipment
- the effect of recycle streams on the clarification process
- the effect of faulty preparation of materials
- quality characteristics of raw juice and of clarified product

- the impact of dextran on sugar quality
- the function of the incubation tank and starch removal
- conditions that can cause deterioration in juice
- significance and method of monitoring control points within the process
- plant and equipment manufacturer's operating procedures
- key health and safety requirements when operating a juice clarification process in the workplace:
  - hazards and associated control measures
  - manual handling procedures
  - correct use of PPE
  - procedures for responding to emergency situations
  - lock-out and tag-out procedures
- procedures and responsibility for reporting problems associated with the juice clarification process
- environmental and waste handling requirements and procedures for the juice clarification process.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - skills must be demonstrated in a sugar milling workplace or an environment that accurately represents workplace conditions
- resources, equipment and materials:
  - PPE
  - juice clarification equipment and services as required
  - workplace information recording system
  - maintenance tools
- specifications:
  - workplace and operating procedures and related advice on equipment operation, including advice on safe work practices and environmental requirements
  - product and process specifications and operating parameters
  - sampling schedule and procedures.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## FBPSUG2011 Operate a mud filtration process

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

### Application

This unit of competency describes the skills and knowledge required to operate a mud filtration process from the clarifiers to mud disposal.

The unit applies to individuals who work under supervision in the sugar milling industry.

All work must be carried out to comply with workplace procedures according to state/territory health and safety regulations, legislation and standards that apply to the workplace.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

### Pre-requisite Unit

Nil

### Unit Sector

Sugar milling (SUG)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare the mud filtration process for operation	1.1 Assess and condition mud to meet filtration requirements 1.2 Confirm services are available and ready for operation 1.3 Check equipment in readiness for use according to operating specifications 1.4 Select, fit and use personal protective equipment as required

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	1.5 Set the mud filtration process to meet production requirements
2. Operate and monitor the mud filtration process	2.1 Start and operate the mud filtration process according to operating procedures 2.2 Confirm process performance is maintained within specification 2.3 Ensure mud meets specifications for pol and moisture 2.4 Monitor equipment to confirm operating condition 2.5 Identify, rectify or report out-of-specification mud, process and equipment performance according to workplace procedures
3. Hand over the mud filtration process	3.1 Maintain workplace records according to workplace requirements 3.2 Carry out shift changeover according to workplace procedures 3.3 Ensure mud filtration station operators are aware of system and related equipment status at completion of handover
4. Shut down the mud filtration process	4.1 Identify the appropriate shutdown procedure for operational and long-term shutdown conditions 4.2 Safely shut down the mud filtration system according to operating procedures 4.3 Prepare the mud filtration system for storage in shutdown mode 4.4 Identify and report operational maintenance requirements according to workplace procedures

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"> <li>Interpret production requirements, workplace and standard operating procedures relevant to job role</li> <li>Interpret production requirements</li> </ul>
Numeracy	<ul style="list-style-type: none"> <li>Interpret production and process control indicators and data</li> </ul>
Navigate the world of	<ul style="list-style-type: none"> <li>Follow workplace procedures applicable to own role and</li> </ul>

Skill	Description
work	responsibilities <ul style="list-style-type: none"><li>Understand main tasks, responsibilities and boundaries of own role</li></ul>
Interact with others	<ul style="list-style-type: none"><li>Apply communication practices and protocols relevant to own role</li></ul>
Get the work done	<ul style="list-style-type: none"><li>Complete tasks in required sequence</li><li>Apply decision-making processes to respond to abnormal performance</li></ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPSUG2011 Operate a mud filtration process	FDFSUG211A Operate a mud filtration process	Updated to meet Standards for Training Packages	Equivalent unit

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# Assessment Requirements for FBPSUG2011 Operate a mud filtration process

## Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

## Performance Evidence

An individual demonstrating competency must satisfy all of the elements and performance criteria in this unit.

There must be evidence that the individual has operated a mud filtration process in line with workplace contexts and demonstrated each of the following points at least once:

- prepared materials for filtration requirements
- checked the availability of services
- conducted required pre-start checks on machinery used for filtration
- selected, fitted and used personal protective equipment (PPE)
- safely started, operated, monitored and adjusted the mud filtration process from the clarifiers to mud disposal
- correctly conducted shift changeover
- taken corrective action in response to typical faults, inconsistencies and product non-conformance
- correctly recorded process and production information
- safely shut down mud filtration process and related equipment and reported maintenance requirements.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- the purpose and principles of mud filtration, including the role of materials added, and their effect on filter operation
- the effect of recycle streams, addition rates, variations in process parameters and mud age on the mud filtration process
- the circuit flow of the process, and the relationship to related processes, including mud output, filter speed, water addition and cake permeability
- equipment purpose and operating principles of mud filtration equipment, including vacuum pumps and condensers

- significance and method of monitoring control points within the process
- common causes of variation in the mud filtration process, and corrective action
- key health and safety requirements when operating a mud filtration process:
  - hazards and associated control measures
  - manual handling procedures
  - correct use of PPE
  - procedures for responding to emergency situations
  - lock-out and tag-out procedures
- requirements of operational and long-term shutdown conditions to ensure the equipment is left in a safe state for the period of the shutdown and to minimise any delays in future start-up
- environmental and waste handling requirements and procedures for the mud filtration process.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - skills must be demonstrated in a sugar milling workplace or an environment that accurately represents workplace conditions
- resources, equipment and materials:
  - PPE
  - filtration and related equipment, services and materials
  - workplace information recording system
- specifications:
  - operating procedures and related advice on equipment operation, including advice on safe work practices and environmental requirements
  - information on equipment capacity and operating parameters
  - production schedule/batch instructions.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>



## FBPSUG2012 Chemically clean equipment

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

### Application

This unit of competency describes the skills and knowledge required to use chemical agents to clean in-line plant and equipment. It applies to cleaning of in-line plant and equipment, including evaporators, pans, heaters, filters and pipework.

The unit applies to individuals who work under supervision in the sugar milling industry.

All work must be carried out to comply with workplace procedures according to state/territory health and safety regulations, legislation and standards that apply to the workplace.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

### Pre-requisite Unit

Nil

### Unit Sector

Sugar milling (SUG)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare for cleaning	1.1 Confirm chemical stocks are available to meet cleaning and sanitation requirements 1.2 Confirm services are available and ready for operation 1.3 Select, fit and use personal protective equipment according to workplace safety procedures

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	1.4 Check equipment to confirm readiness for use according to operating specifications 1.5 Plan equipment shut down and take equipment off-line for cleaning according to operating procedures 1.6 Set the plant for the cleaning cycle
2. Operate and monitor the cleaning process	2.1 Undertake the cleaning process according to operating procedures 2.2 Monitor the cleaning process to confirm cleaning meets workplace requirements 2.3 Record cleaning data according to workplace requirements 2.4 Identify, rectify or report process non-conformance and equipment faults according to workplace procedures
3. Dispose of waste and return plant to operating condition	3.1 Flush and dispose of cleaning chemicals from plant according to workplace environmental procedures 3.2 Return plant to operational requirements

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"> <li>Interpret workplace procedures and environmental care requirements relevant to job role</li> </ul>
Navigate the world of work	<ul style="list-style-type: none"> <li>Apply legislative requirements and workplace procedures to own role and responsibilities</li> </ul>
Interact with others	<ul style="list-style-type: none"> <li>Report operational and safety information in required format</li> </ul>
Get the work done	<ul style="list-style-type: none"> <li>Complete tasks in required sequence</li> </ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPSUG2012 Chemically clean equipment	FDFSUG212A Chemically clean equipment	Updated to meet Standards for Training Packages	Equivalent unit

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# Assessment Requirements for FBPSUG2012 Chemically clean equipment

## Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

## Performance Evidence

An individual demonstrating competency must satisfy all of the elements and performance criteria in this unit.

There must be evidence that the individual has chemically cleaned equipment in line with workplace contexts and demonstrated each of the following points at least once:

- selected, fitted and used personal protective equipment (PPE)
- completed steps required to prepare the plant for cleaning
- cleaned equipment according to cleaning process cycle and procedures
- carried out relevant checks and inspections to confirm effectiveness of cleaning, including completion of required records
- handled cleaning and sanitation agents safely
- returned the plant to operating order.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- purpose and principles of cleaning in place (in-line), including the use and functions of caustic and acid solutions, and cleaning sequence and stages
- cleaning and sanitation requirements for work area, including different levels of cleaning requirements depending on the reason for cleaning
- methods used to render equipment safe to clean, including lock-out, tag-out and isolation procedures
- equipment settings required for cleaning and for operating
- inspection points for cleaning and sanitation
- consequences of contamination of process flows by cleaning solutions
- types of waste generated by both the production and the cleaning process, and related collection, treatment and disposal requirements
- environmental consequences of incorrect waste disposal procedures

- health and safety in the workplace requirements when chemically cleaning in-line plant and equipment:
  - appropriate signage of cleaning activities
  - safe handling and storage of cleaners and sanitisers
  - correct use of PPE.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - skills must be demonstrated in a sugar milling workplace or an environment that accurately represents workplace conditions
- resources, equipment and materials:
  - PPE
  - equipment to be cleaned and related cleaning system
  - chemicals and/or automated chemical addition system
  - workplace information recording system
- specifications:
  - workplace procedures and related advice on equipment operation, including advice on safe work practices and environmental requirements.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## FBPSUG2013 Operate a pan station

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

### Application

This unit of competency describes the skills and knowledge required to operate the panning process from the liquor and A/B molasses tanks to the high grade fugal distributor and low grade pan receiver.

The unit applies to individuals who work under supervision in the sugar milling industry.

All work must be carried out to comply with workplace procedures according to state/territory health and safety regulations, legislation and standards that apply to the workplace.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

### Pre-requisite Unit

Nil

### Unit Sector

Sugar milling (SUG)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare the pan station for operation	1.1 Confirm liquor and molasses are available to meet production requirements 1.2 Confirm services are available and ready for operation 1.3 Check equipment in readiness for use according to operating specifications

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	1.4 Select, fit and use personal protective equipment according to workplace safety procedures 1.5 Set up the pan station to meet production requirements
2. Operate and monitor pan station	2.1 Start and operate the pan station process according to operating procedures 2.2 Monitor control points to confirm performance is maintained within specification 2.3 Ensure C sugar and C molasses meet specification 2.4 Monitor equipment to confirm operating condition 2.5 Identify, rectify or report process and equipment non-conformance according to workplace procedures
3. Hand over the pan station	3.1 Maintain workplace records according to workplace procedures 3.2 Carry out shift changeover according to workplace procedures 3.3 Ensure pan station operators are aware of system and related equipment status at completion of handover
4. Shut down the pan station	4.1 Identify the appropriate shutdown procedure for operational and long-term shutdown conditions 4.2 Shut down the system safely according to operating procedures 4.3 Prepare the system for storage in shutdown mode 4.4 Identify and report operational maintenance requirements

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"> <li>Interpret production requirements, workplace and standard operating procedures relevant to job role</li> <li>Interpret production requirements</li> </ul>
Writing	<ul style="list-style-type: none"> <li>Record maintenance, changeover and shutdown information in required format</li> </ul>

Skill	Description
Numeracy	<ul style="list-style-type: none"> <li>Interpret production and process control indicators and data</li> </ul>
Navigate the world of work	<ul style="list-style-type: none"> <li>Follow workplace procedures applicable to own role and responsibilities</li> <li>Understand main tasks, responsibilities and boundaries of own role</li> </ul>
Interact with others	<ul style="list-style-type: none"> <li>Apply communication practices and protocols relevant to own role</li> </ul>
Get the work done	<ul style="list-style-type: none"> <li>Complete tasks in required sequence</li> <li>Apply decision-making processes to respond to abnormal performance</li> </ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPSUG2013 Operate a pan station	FDFSUG213A Operate a pans station	Updated to meet Standards for Training Packages  Title changed from 'pans' to 'pan'	Equivalent unit

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>



# Assessment Requirements for FBPSUG2013 Operate a pan station

## Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

## Performance Evidence

An individual demonstrating competency must satisfy all of the elements and performance criteria in this unit.

There must be evidence that the individual has operated a pan station in line with workplace contexts and demonstrated each of the following points at least once:

- conducted pre-start checks and confirmed equipment status and condition
- started up and operated equipment in both automatic and manual modes
- safely operated, monitored and adjusted the process and equipment operation
- added process additives as required by pan performance
- prepared magma and grain for high/low grade seed production
- prepared slurry for seed production
- controlled station throughput and A/B balance to meet factory throughput through pan scheduling
- conducted shift changeover procedure
- shut down and cleaned pans according to schedule or as indicated by equipment monitoring
- taken corrective action in response to typical operating faults and product and process non-conformance
- correctly recorded process and production information.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- purpose and principles of pan station operation, including the principles of crystallisation that may relate to operation of batch and continuous pans
- sugar industry quality standards for each brand of sugar
- factors that affect throughput and recovery, including the relationship between sugar pol and throughput; the balance between A, B and C pans and the effect of cane quality and boiling formula

- factors that affect flow of massecuite through the system
- the effects of massecuite quality on operations
- relationship between boiling point and pressure in the pans station
- equipment purpose and basic operating principles of pans station equipment, including vacuum pumps and condensers
- significance and method of monitoring control points within the process
- common causes of variation, and corrective action
- shutdown requirements:
  - shutdown sequence, including massecuite pumps and stock management
  - requirements of operational and long-term shutdowns
- key health and safety requirements when operating a panning process:
  - hazards and associated control measures
  - correct use of personal protective equipment (PPE)
  - lock-out and tag-out procedures
- environmental and waste handling requirements and procedures for operating a pan station.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - skills must be demonstrated in a sugar milling workplace or an environment that accurately represents workplace conditions
- resources, equipment and materials:
  - PPE
  - pan station equipment
  - materials, including molasses and liquor
  - workplace information recording system
  - routine maintenance tools
- specifications:
  - workplace operating procedures and related advice on equipment operation, including advice on safe work practices and environmental requirements.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## FBPSUG2014 Operate a low grade fugal station

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

### Application

This unit of competency describes the skills and knowledge required to operate the low-grade fugal process from the re-heater to the magma pump and molasses cooler.

The unit applies to individuals who work under supervision in the sugar milling industry.

All work must be carried out to comply with workplace procedures according to state/territory health and safety regulations, legislation and standards that apply to the workplace.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

### Pre-requisite Unit

Nil

### Unit Sector

Sugar milling (SUG)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare the low grade fugal station for operation	1.1 Confirm massecuite is available to meet production requirements 1.2 Confirm services are available and ready for operation 1.3 Check equipment in readiness for use according to operating specifications 1.4 Select, fit and use personal protective equipment according to

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	workplace safety procedures 1.5 Set the low grade fugal process to meet production requirements
2. Operate and monitor low grade fugal station	2.1 Start and operate the low grade fugal station according to operating procedures 2.2 Confirm process performance is maintained within specification 2.3 Ensure C sugar and C molasses meet specification 2.4 Monitor equipment to confirm operating condition 2.5 Identify, rectify or report product, process and equipment non-conformance according to workplace procedures
3. Hand over the low grade fugal station	3.1 Maintain workplace records according to workplace requirements 3.2 Carry out shift changeover according to workplace procedures 3.3 Ensure low grade fugal station operators are aware of system and related equipment status at completion of handover
4. Shut down the low grade fugal station	4.1 Identify the appropriate shutdown procedure for operational and long-term shutdown conditions 4.2 Safely shut down the low grade fugal system according to operating procedures 4.3 Prepare the low grade fugal system for storage in shutdown mode 4.4 Identify and report operational maintenance requirements according to workplace procedures

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"> <li>Interpret information in workplace and standard operating procedures</li> </ul>
Numeracy	<ul style="list-style-type: none"> <li>Monitor and interpret production and process control indicators and data</li> <li>Check operation or calibration of measuring instrumentation</li> </ul>

Skill	Description
Navigate the world of work	<ul style="list-style-type: none"><li>• Apply workplace procedures to own role and responsibilities</li></ul>
Interact with others	<ul style="list-style-type: none"><li>• Apply communication practices and protocols relevant to own role</li></ul>
Get the work done	<ul style="list-style-type: none"><li>• Complete tasks in required sequence</li><li>• Apply decision-making processes to respond to routine performance abnormalities</li></ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPSUG2014 Operate a low grade fugal station	FDFSUG214A Operate a low grade fugal station	Updated to meet Standards for Training Packages	Equivalent unit

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# Assessment Requirements for FBPSUG2014 Operate a low grade fugal station

## Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

## Performance Evidence

An individual demonstrating competency must satisfy all of the elements and performance criteria in this unit.

There must be evidence that the individual has operated a low grade fugal station in line with workplace contexts and demonstrated each of the following points at least once:

- confirmed availability of equipment, services and massecuite to meet production requirements
- selected, fitted and used personal protective equipment (PPE)
- conducted pre-start checks and followed start-up procedure
- started up and operated in both automatic and manual modes
- safely operated, monitored and adjusted the process and equipment from the re-heater to the magma pump and molasses cooler within required parameters
- controlled station throughput to meet factory flows
- performed an operational shutdown according to workplace procedure
- conducted shift handover according to workplace procedure
- taken corrective action in response to typical operating faults and product and process non-conformance.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- purpose and basic principles of low grade fugal operation, including C molasses cooling and storage, and operating efficiencies for low grade fugals
- the effect of C molasses dilution and temperature on C massecuite viscosity
- the effect of C massecuite conditioning on low grade fugal performance
- factors that affect throughput and recovery, including the relationship between crystalliser throughput, magma stock and remelt rate
- equipment purpose and operating principles of low grade fugal equipment

- services used for low grade fugal process
- significance and method of monitoring control points within the process
- key health and safety requirements when operating a low grade fugal process:
  - hazards and associated control measures
  - correct use of PPE
  - procedures for responding to emergency situations
  - lock-out and tag-out procedures
- requirements of operational and long-term shutdown conditions
- procedures and responsibility for reporting problems relating to the low grade fugal process
- environmental and waste handling requirements and procedures relevant to the low grade fugal process
- recording requirements and procedures relevant to low grade fugal process.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - skills must be demonstrated in a sugar milling workplace or an environment that accurately represents workplace conditions
- resources, equipment and materials:
  - PPE
  - low grade fugal station equipment
  - materials, including massecuite
  - maintenance tools
  - workplace information recording system
- specifications:
  - workplace and operating procedures and related advice on equipment operation, including advice on safe work practices and environmental requirements
  - product and process specifications and operating parameters
  - cleaning procedures, sampling schedule and procedures.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## FBPSUG2015 Operate a high grade fugal station

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

### Application

This unit of competency describes the skills and knowledge required to operate the high grade fugal process from the high grade fugal distributor to the sugar bin and the A and B molasses storage tanks.

The unit applies to individuals who work under supervision in the sugar milling industry.

All work must be carried out to comply with workplace procedures according to state/territory health and safety regulations, legislation and standards that apply to the workplace.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

### Pre-requisite Unit

Nil

### Unit Sector

Sugar milling (SUG)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare the high grade fugal station for operation	1.1 Confirm massecuite is available to meet production requirements 1.2 Confirm services are available and ready for operation 1.3 Check equipment in readiness for use according to operating specifications 1.4 Select, fit and use personal protective equipment according to



Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	workplace safety procedures 1.5 Set the process to meet production requirements
2. Operate and monitor high grade fugal station	2.1 Start and operate the high grade fugal station according to operating procedures 2.2 Confirm process performance is maintained within specification 2.3 Ensure output meets specification 2.4 Monitor equipment to confirm operating condition 2.5 Identify, rectify or report product, process and equipment non-conformance according to workplace procedures
3. Hand over the high grade fugal station	3.1 Maintain workplace records according to workplace requirements 3.2 Carry out handover according to workplace procedures 3.3 Ensure operators are aware of system and related equipment status at completion of handover
4. Shut down the high grade fugal station	4.1 Identify the appropriate shutdown procedure for operational and long-term shutdown conditions 4.2 Safely shut down the system according to operating procedures 4.3 Prepare the high grade fugal system for storage in shutdown mode 4.4 Identify and report operational maintenance requirements according to workplace procedures

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"> <li>Interpret workplace and standard operating procedures relevant to job role</li> </ul>
Reading	<ul style="list-style-type: none"> <li>Interpret information in workplace and standard operating procedures</li> </ul>
Numeracy	<ul style="list-style-type: none"> <li>Monitor and interpret production and process control indicators</li> </ul>

Skill	Description
	and data • Check operation or calibration of measuring instrumentation
Navigate the world of work	• Apply workplace procedures to own role and responsibilities
Interact with others	• Apply communication practices and protocols relevant to own role
Get the work done	• Complete tasks in required sequence • Apply decision-making processes to respond to routine performance abnormalities

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPSUG2015 Operate a high grade fugal station	FDFSUG215A Operate a high grade fugal station	Updated to meet Standards for Training Packages	Equivalent unit

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# Assessment Requirements for FBPSUG2015 Operate a high grade fugal station

## Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

## Performance Evidence

An individual demonstrating competency must satisfy all of the elements and performance criteria in this unit.

There must be evidence that the individual has operated a high grade fugal station in line with workplace contexts and demonstrated each of the following points at least once:

- confirmed availability of equipment, services and massecuite to meet production requirements
- selected, fitted and used personal protective equipment (PPE)
- conducted pre-start checks and followed start-up procedure
- started up and operated in both automatic and manual modes
- safely operated, monitored and adjusted the high grade fugal distributor to the sugar bin and the A and B molasses storage tanks within required parameters
- controlled dryer airflows to achieve target sugar temperature and moisture
- controlled station throughput and A/B balance to meet pan stage throughput
- performed an operational shutdown according to schedule or as indicated by equipment monitoring
- conducted shift handover according to workplace procedure
- taken corrective action in response to typical operating faults and product and process non-conformance.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- purpose and principles of high grade fugal station operation, including sugar drying and operation of batch and continuous fugals
- factors that affect throughput and recovery, including the relationship between sugar pol and throughput and the balance between A and B fugals
- the effect of massecuite quality on fugal operation and the effect of variation in operating parameters on the fugal output

- equipment purpose and basic operating principles of high grade fugal equipment
- significance and method of monitoring control points within the process
- key health and safety requirements when operating a high grade fugal process:
  - hazards and associated control measures
  - correct use of PPE
  - procedures for responding to emergency situations
  - lock-out and tag-out procedures
- shutdown sequence, including massecuite feed pumps and re-heaters
- requirements of operational and long-term shutdown conditions
- procedures and responsibility for reporting problems relating to the high grade fugal process
- environmental and waste handling requirements and procedures relevant to the high grade fugal process
- recording requirements and procedures relevant to high grade fugal process operations.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - skills must be demonstrated in a sugar milling workplace or an environment that accurately represents workplace conditions
- resources, equipment and materials:
  - PPE
  - high grade fugal station equipment
  - materials, including massecuite
  - routine maintenance tools
  - workplace information recording system
- specifications:
  - workplace and operating procedures and related advice on equipment operation, including advice on safe work practices and environmental requirements
  - product and process specifications and operating parameters
  - cleaning procedures, sampling schedule and procedures.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## FBPSUG2016 Operate a crystalliser station process

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

### Application

This unit of competency describes the skills and knowledge required to operate the crystalliser station process from the low grade pan receiver through the crystallisers to the re-heater.

The unit applies to individuals who work under supervision in the sugar milling industry.

All work must be carried out to comply with workplace procedures according to state/territory health and safety regulations, legislation and standards that apply to the workplace.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

### Pre-requisite Unit

Nil

### Unit Sector

Sugar milling (SUG)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare the crystalliser station for operation	1.1 Confirm massecuite is available to meet production requirements 1.2 Confirm services are available and ready for operation 1.3 Check equipment in readiness for use according to workplace procedures 1.4 Select, fit and use personal protective equipment according to

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	workplace safety procedures 1.5 Set the crystallisers to meet production requirements
2. Operate and monitor crystalliser station	2.1 Start and operate the crystalliser station according to workplace procedures, including safety requirements 2.2 Confirm process performance is maintained within manufacturer's specifications to meet workplace requirements 2.3 Ensure C-masseccuite feed to fugals meets specification 2.4 Monitor equipment to confirm operating condition 2.5 Identify, rectify or report product, process and equipment non-conformance according to workplace procedures
3. Hand over the crystalliser station	3.1 Maintain workplace records according to workplace procedures 3.2 Carry out handover according to workplace procedures 3.3 Ensure operators are aware of system and related equipment status at completion of handover according to workplace procedures
4. Shut down the crystalliser station	4.1 Identify the appropriate shutdown procedure for operational and long-term shutdown conditions 4.2 Shut down the system according to workplace procedures and manufacturer's guidelines 4.3 Prepare the system for storage in shutdown mode according to workplace procedures and manufacturer's guidelines 4.4 Identify and report operational maintenance requirements according to workplace procedures and manufacturer's specifications

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"> <li>Interpret workplace and standard operating procedures relevant to job role</li> </ul>

Skill	Description
Numeracy	<ul style="list-style-type: none"><li>• Monitor and interpret production and process control indicators and data</li><li>• Maintain required levels in the crystallisers</li></ul>
Navigate the world of work	<ul style="list-style-type: none"><li>• Apply workplace procedures to own role and responsibilities</li></ul>
Interact with others	<ul style="list-style-type: none"><li>• Apply communication practices and protocols relevant to own role</li></ul>
Get the work done	<ul style="list-style-type: none"><li>• Complete tasks in required sequence</li><li>• Apply decision-making processes to respond to routine performance abnormalities</li></ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPSUG2016 Operate a crystalliser station process	FDFSUG216A Operate a crystalliser station process	Updated to meet Standards for Training Packages	Equivalent unit

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## Assessment Requirements for FBPSUG2016 Operate a crystalliser station process

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

### Performance Evidence

An individual demonstrating competency must satisfy all of the elements and performance criteria in this unit.

There must be evidence that, on at least one occasion and in line with workplace contexts, the individual has operated a crystalliser station process, including:

- confirmed availability of equipment, massecuite and services to meet production requirements
- conducted pre-start checks of equipment according to procedures
- selected, fitted and used personal protective equipment (PPE)
- safely started up, operated and monitored the process and equipment operation
- started up from empty or from full in manual and automatic modes
- operated the process from the low grade pan receiver through the crystallisers to the re-heater
- conducted shift changeover according to workplace procedure
- performed an operational shutdown
- taken corrective action in response to typical operating faults and product and process non-conformance
- reported and/or recorded process and production and corrective action.

### Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- purpose and principles of crystallisation, including a basic understanding of crystal growth and super saturation of solutions
- the effect of C molasses dilution on C-massecuite viscosity
- the effect on C molasses purity of variation in:
  - end of cooling and re-heating temperatures
  - residence time



- equipment purpose and basic operating principles of crystallisation equipment
- requirements when starting up full crystallisers containing cold massecuite
- requirements when shutting down full crystallisers containing hot massecuite
- significance and method of monitoring control points within the process
- key health and safety requirements when operating a crystalliser station process:
  - hazards and associated control measures
  - correct use of PPE
  - procedures for responding to emergency situations
  - lock-out and tag-out procedures
- shut down sequence, including massecuite pumps and re-heaters
- requirements of both operational and long-term shutdown conditions
- procedures and responsibility for reporting problems relating to the crystalliser station process
- environmental and waste handling requirements and procedures relevant to crystalliser station process operations
- recording requirements and procedures relevant to crystalliser station process operations.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - skills must be demonstrated in a sugar milling workplace or an environment that accurately represents workplace conditions
- resources, equipment and materials:
  - PPE
  - crystalliser station equipment
  - materials, including massecuite
  - routine maintenance tools
  - workplace information recording system
- specifications:
  - workplace and operating procedures and related advice on equipment operation, including advice on safe work practices and environmental requirements
  - product and process specifications and operating parameters
  - workplace cleaning procedures, sampling schedule and procedures.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>



## FBPSUG2017 Undertake simple fabrication

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

### Application

This unit of competency describes the skills and knowledge required to carry out fabrication-associated general jobbing work. It includes producing general fabricated components in plate, pipe and section or sheet.

The unit applies to individuals who work under supervision in the sugar milling industry.

All work must be carried out to comply with workplace procedures according to state/territory health and safety regulations, legislation and standards that apply to the workplace.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

### Pre-requisite Unit

Nil

### Unit Sector

Sugar milling (SUG)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare for assembly of parts	1.1 Identify fabrication requirements according to job specifications 1.2 Select appropriate fabrication method according to workplace procedures

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	1.3 Select, fit and use personal protective equipment according to workplace safety procedures 1.4 Identify and collect required materials and equipment according to job specifications 1.5 Prepare materials for fabrication according to workplace procedures 1.6 Ensure the work area is ready for the fabrication job according to work place health and safety requirements
2. Assemble fabricated components	2.1 Position and clamp components according to job specifications and workplace safety procedures 2.2 Check component positioning against job specifications 2.3 Fix components using appropriate fixing method according to workplace procedures and health and safety requirements 2.4 Check assembly to confirm conformance to job specifications

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"> <li>Identify routine fabrication requirements, including tolerances, dimensions and finishes, from written work instructions and technical drawings and sketches</li> <li>Interpret standard operating procedures</li> </ul>
Numeracy	<ul style="list-style-type: none"> <li>Measure parts to be joined to specified tolerances and dimensions</li> <li>Check for conformance to specification</li> </ul>
Navigate the world of work	<ul style="list-style-type: none"> <li>Apply workplace procedures relevant to own role</li> <li>Understand main tasks, responsibilities and boundaries of own role</li> </ul>
Get the work done	<ul style="list-style-type: none"> <li>Recognise and make routine decisions to respond to non-conforming components</li> <li>Identify and correct routine fabrication problems</li> </ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPSUG2017 Undertake simple fabrication	FDFSUG231A Undertake simple fabrication	Updated to meet Standards for Training Packages	Equivalent unit

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# Assessment Requirements for FBPSUG2017 Undertake simple fabrication

## Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

## Performance Evidence

An individual demonstrating competency must satisfy all of the elements and performance criteria in this unit.

There must be evidence that the individual has undertaken simple fabrication in line with workplace contexts and demonstrated each of the following points at least once:

- identified fabrication requirements and methods
- identified and obtained components, materials, equipment and measuring and levelling devices
- prepared materials for fabrication
- checked accuracy of component positioning
- identified and corrected non-conforming component assembly
- used squares, levels and rules to measure materials and fabricated components
- prepared and joined components
- applied safety procedures to prepare work area and materials and complete the work.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- purpose and principles of fabrication, including methods used to assemble and fix components and the effects of distortion on fabricated components
- use of equipment to position components to meet assembly requirements
- use of rules, tapes, squares and levels relevant for general metal fabrication
- methods used to prepare ends for joining
- appropriate joining methods, including welding and bolt/screw fixing
- typical defects that can occur for given assembly and fabrication methods
- options for correcting out-of-tolerance components and assemblies
- key health and safety requirements for general metal fabrication:
  - safe work procedures

- hazards and risk assessment
- manual handling procedures
- correct use of personal protective equipment (PPE).

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - skills must be demonstrated in a sugar milling workplace or an environment that accurately represents workplace conditions
- resources, equipment and materials:
  - fabrication equipment
  - PPE
  - rules, tapes, squares and levels
  - components to be fabricated
  - drawings, sketches and specifications as required for task
- specifications:
  - operating procedures and related advice on equipment/instrumentation operation
  - health and safety policies and procedures.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## FBPSUG2018 Undertake forming, bending and shaping

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

### Application

This unit of competency describes the skills and knowledge required to carry out forming, bending and shaping operations. It includes hot or cold forming of pipes, cylinders, cones, angles, and ductwork using presses, shapers, benders and drop hammers.

The unit applies to individuals who work under supervision in the sugar milling industry.

All work must be carried out to comply with workplace procedures according to state/territory health and safety regulations, legislation and standards that apply to the workplace.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

### Pre-requisite Unit

Nil

### Unit Sector

Sugar milling (SUG)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare for forming, bending and shaping to meet specifications	1.1 Identify forming, bending and shaping requirements according to job specifications 1.2 Select, fit and use personal protective equipment according to health and safety procedures in the workplace 1.3 Select materials according to specifications



Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	1.4 Set up and adjust the equipment according to operating procedures 1.5 Prepare simple templates according to specifications 1.6 Conduct pre-operational equipment checks according to operating procedures 1.7 Identify and report health and safety hazards and maintenance requirements
2. Operate forming, bending and shaping equipment to achieve required outcome	2.1 Start and operate and shut down the lathe according to operating procedures 2.2 Position and clamp materials accurately in the machine according to operating procedure 2.3 Adjust equipment to meet operating requirements 2.4 Ensure the work area is maintained to meet workplace cleaning standards
3. Form, bend and shape material	3.1 Level, straighten, roll, press or bend material according to specifications 3.2 Form and shape material to size 3.3 Check final form or shape for compliance to specifications 3.4 Identify and correct non-conforming shapes as required

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"> <li>Identify routine forming, bending and shaping requirements, including tolerances, dimensions and finishes, from written work instructions and technical drawings and sketches</li> <li>Interpret standard operating procedures</li> </ul>
Numeracy	<ul style="list-style-type: none"> <li>Select and set machine stops</li> <li>Measure and calculate to specified tolerances and dimensions</li> <li>Check for conformance to specification</li> </ul>

Skill	Description
Navigate the world of work	<ul style="list-style-type: none"><li>• Apply workplace procedures relevant to own role</li><li>• Understand main tasks, responsibilities and boundaries of own role</li></ul>
Interact with others	<ul style="list-style-type: none"><li>• Follow accepted practices to communicate and report information about operations, operational maintenance and safety</li></ul>
Get the work done	<ul style="list-style-type: none"><li>• Recognise and make routine decisions to respond to non-conforming components</li><li>• Identify and correct problems, including effects of tool wear, and incorrect set-up</li></ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPSUG2018 Undertake forming, bending and shaping	FDFSUG230A Undertake forming, bending and shaping	Updated to meet Standards for Training Packages	Equivalent unit

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# Assessment Requirements for FBPSUG2018 Undertake forming, bending and shaping

## Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

## Performance Evidence

An individual demonstrating competency must satisfy all of the elements and performance criteria in this unit.

There must be evidence that the individual has undertaken forming, bending and shaping in line with workplace contexts and demonstrated each of the following points at least once:

- identified forming, bending and shaping requirements
- selected dyes, formers and accessories
- selected, fitted and used personal protective equipment (PPE)
- marked out and produced simple templates
- safely set up equipment and conducted pre-operational checks
- operated, monitored and adjusted equipment
- positioned and clamped or fed material according to equipment requirements
- measured components using dividers, trammels, rules, tapes, gauges and templates
- produced, formed and/or shaped material to meet job specification
- confirmed that the formed or shaped material meets specification
- safely shut down equipment
- maintained workplace cleaning standards
- reported health and safety risks and maintenance requirements.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- principles and practices for undertaking metal forming, bending and shaping
- site operating procedures and practices
- purpose and operating principles of forming, bending and shaping equipment, including equipment operating capacities
- the effect of heating materials on the forming and bending process
- scope to adjust equipment parameters, and related effect on outcome

- awareness of hazards related to the operation of forming, bending and shaping equipment
- workplace cleaning standards for the work area.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - skills must be demonstrated in a sugar milling workplace or an environment that accurately represents workplace conditions
- resources, equipment and materials:
  - PPE
  - forming, bending and shaping equipment
  - relevant measuring devices
  - materials to be formed, bent and/or shaped
  - drawings, templates and specifications as required
- specifications:
  - operating procedures and related advice on safe equipment operation, including information on safe work practices and environmental requirements
  - equipment operating procedures and related information
  - workplace cleaning standards and procedures.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# FBPSUG2019 Operate a bagasse fuel supply system

## Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

## Application

This unit of competency describes the skills and knowledge required to operate a bagasse fuel system and related auxiliary fuel system to supply a boiler. The auxiliary fuel supply system is typically an oil system.

The unit applies to individuals who work under supervision in the sugar milling industry.

All work must be carried out to comply with workplace procedures, according to state/territory health and safety regulations, legislation and standards that apply in the workplace.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

## Pre-requisite Unit

Nil

## Unit Sector

Sugar milling (SUG)

## Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare the fuel supply system for operation	1.1 Select, fit and use personal protective equipment according to workplace safety procedures 1.2 Conduct pre-operational checks according to operating procedures

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	1.3 Identify and control health and safety hazards 1.4 Identify and report maintenance requirements according to workplace procedures 1.5 Ensure primary and auxiliary fuel is available to meet combustion requirements 1.6 Confirm services are available and ready for operation
2. Start and monitor operation of the fuel supply system	2.1 Start and operate the system to meet workplace requirements 2.2 Confirm process performance is maintained within operating requirements 2.3 Ensure work area meets workplace cleaning standards
3. Analyse and respond to abnormal performance	3.1 Identify causes of abnormal performance in the system 3.2 Take corrective action in response to hazards and abnormal plant performance 3.3 Implement emergency procedures according to health and safety procedures
4. Hand over fuel system operations	4.1 Maintain workplace records according to workplace procedures 4.2 Carry out handover according to workplace procedures 4.3 Ensure operators are aware of system and related equipment status at completion of handover
5. Shut down the fuel supply system	5.1 Safely shut down the system according to workplace procedures 5.2 Prepare the system for storage in shutdown mode according to operating procedures 5.3 Identify and report operational maintenance requirements according to workplace procedures 5.4 Store fuel to meet fuel requirements and workplace standards

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"> <li>Interpret information in workplace documentation</li> </ul>
Numeracy	<ul style="list-style-type: none"> <li>Interpret production and process control indicators and data</li> </ul>
Navigate the world of work	<ul style="list-style-type: none"> <li>Apply workplace procedures to own role and responsibilities</li> </ul>
Interact with others	<ul style="list-style-type: none"> <li>Use modes of communication suitable to purpose to confirm and clarify understanding</li> </ul>
Get the work done	<ul style="list-style-type: none"> <li>Access and interpret bagasse fuel supply system process control panels and system</li> <li>Make routine decisions to correct abnormal performance of bagasse fuel supply system</li> </ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPSUG2019 Operate a bagasse fuel supply system	FDFSUG219A Operate a bagasse fuel supply system	Updated to meet Standards for Training Packages	Equivalent unit

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# Assessment Requirements for FBPSUG2019 Operate a bagasse fuel supply system

## Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

## Performance Evidence

An individual demonstrating competency must satisfy all of the elements and performance criteria in this unit.

There must be evidence that the individual has operated a bagasse fuel supply system in line with workplace contexts and demonstrated each of the following points at least once:

- selected, fitted and used required personal protective equipment (PPE)
- conducted pre-start checks of equipment, fuel and services
- followed start-up procedures in both manual and automatic modes
- safely operated, monitored and adjusted a bagasse fuel system and related auxiliary fuel system to supply a boiler
- cleared fuel blockages or chokes throughout the system according to workplace procedures
- applied fuel storage and/or reclamation procedures
- applied procedures for test firing burners
- removed, inspected, cleaned and replaced oil burners
- carried out shift handover procedures
- taken a fuel supply system off-line according to workplace procedures
- taken corrective action in response to abnormal or unacceptable performance
- reported fuel system operations and maintenance requirements
- controlled work health and safety risks
- safely shut down bagasse fuel supply system.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- properties of bagasse and bagacillo, and impact of variation on combustion
- impact of bagasse belt levels on system capacity to supply



- principles of flame management systems, including understanding of when and how to purge boiler before relighting in a flame-out situation
- purpose and operation of auxiliary fuel supply
- functions and basic operating principles of fuel supply system, components and auxiliary equipment
- fuel storage requirements relevant to a bagasse fuel system
- fuel reclamation options and procedures
- the effect of fuel quality and supply on boiler operation
- bagasse fuel supply system layout to supply a boiler
- relationship between viscosity and temperature for burner operation
- purpose of atomising steam and/or air
- purpose of purge cycle for the burner
- relationship between fuel supply system and other processes
- key health and safety requirements relevant to operating a bagasse fuel system:
  - hazards related to operation of fuel supply system, and associated control measures
  - correct use of PPE
  - methods used to render equipment safe to inspect, maintain and clean, including lock-out, tag-out and isolation procedures
  - procedures for responding to emergency situations, including emergency shutdown
- handover and long-term shutdown and storage procedures
- procedures and responsibility for reporting problems relevant to operating a bagasse fuel system
- environmental and waste handling requirements and procedures relevant to operating a bagasse fuel system
- recording requirements and procedures for operating a bagasse fuel system.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - skills must be demonstrated in a sugar milling workplace or an environment that accurately represents workplace conditions
- resources, equipment and materials:
  - PPE
  - bagasse fuel supply equipment
  - fuel and services as required
  - maintenance tools
  - workplace information recording system
- specifications:
  - operating procedures and related advice on equipment operation, including advice on safe work practices and environmental requirements
  - product and process specifications and operating parameters

- workplace cleaning standards and procedures
- workplace information recording procedures
- sampling schedule and procedures.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# FBPSUG2020 Operate a coal fuel supply system

## Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

## Application

This unit of competency describes the skills and knowledge required to operate a coal fuel system and related auxiliary fuel system to supply a boiler. The auxiliary fuel supply system is typically an oil system.

The unit applies to individuals who work under supervision in the sugar milling industry.

All work must be carried out to comply with workplace procedures according to state/territory health and safety regulations, legislation and standards that apply in the workplace.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

## Pre-requisite Unit

Nil

## Unit Sector

Sugar milling (SUG)

## Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare the fuel supply system for operation	1.1 Conduct pre-operational checks according to workplace procedures 1.2 Identify and control health and safety hazards according to workplace safety procedures 1.3 Select, fit and use personal protective equipment according to

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	workplace safety procedures 1.4 Identify and report maintenance requirements according to workplace procedures 1.5 Ensure primary and auxiliary fuel is available to meet combustion requirements according to workplace procedures 1.6 Confirm services are available and ready for operation
2. Start and monitor operation of the fuel supply system	2.1 Operate the system according to operating procedures 2.2 Confirm performance is maintained within operating procedures 2.3 Ensure the work area is maintained according to workplace cleaning standards
3. Analyse and respond to abnormal performance	3.1 Identify causes of abnormal performance in the operation 3.2 Take corrective action to rectify causes of abnormal performance 3.3 Implement emergency procedures according to health and safety
4. Hand over fuel system operations	4.1 Maintain workplace records according to workplace procedures 4.2 Carry out handover according to workplace procedures 4.3 Ensure operators are aware of system and related equipment status at completion of handover
5. Shut down the fuel supply system	5.1 Shut down the system according to operating procedures 5.2 Prepare the system for storage in shutdown mode according to operating procedures 5.3 Identify and report maintenance requirements according to workplace procedures 5.4 Store fuel to meet fuel requirements and workplace standards

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
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Skill	Description
Reading	<ul style="list-style-type: none"><li>Interpret information in workplace documentation</li></ul>
Numeracy	<ul style="list-style-type: none"><li>Monitor and interpret production and process control indicators and data</li><li>Calculate amount of caustic addition for each tonne of coal burnt</li></ul>
Navigate the world of work	<ul style="list-style-type: none"><li>Apply workplace procedures to own role and responsibilities</li></ul>
Interact with others	<ul style="list-style-type: none"><li>Use modes of communication suitable to purpose to confirm and clarify understanding</li></ul>
Get the work done	<ul style="list-style-type: none"><li>Access and interpret coal fuel supply system control panels and system</li><li>Make routine decisions to correct abnormal performance of coal fuel supply system</li></ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPSUG2020 Operate a coal fuel supply system	FDFSUG220A Operate a coal fuel supply system	Updated to meet Standards for Training Packages	Equivalent unit

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# Assessment Requirements for FBPSUG2020 Operate a coal fuel supply system

## Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

## Performance Evidence

An individual demonstrating competency must satisfy all of the elements and performance criteria in this unit.

There must be evidence that the individual has operated a coal fuel supply system in line with workplace contexts and demonstrated each of the following points at least once:

- followed set-up and start-up procedures
- confirmed status of fuel supply system and related services
- operated, monitored and adjusted a coal fuel system and related auxiliary fuel system to supply a boiler
- cleared fuel blockages or chokes throughout the system
- carried out procedures for test firing burners
- carried out procedures to take fuel supply system off-line
- removed, inspected, cleaned and replaced oil burners
- followed shift handover procedure
- taken corrective action in response to abnormal or unacceptable performance.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- principles of flame management systems, including understanding of when and how to purge boiler before relighting in a flame-out situation
- the amount of caustic addition for each tonne of coal burnt
- purpose and operation of auxiliary fuel supply
- functions and operating principles of fuel supply system, components and auxiliary equipment
- supply system layout
- the effect of fuel quality and supply on boiler operation
- relationship between fuel supply system and other processes

- fuel storage requirements
- fuel reclamation options and procedures as appropriate for the workplace and fuel type
- key health and safety requirements relevant to operating a coal fuel supply system:
  - hazards related to operation of fuel supply system and associated control measures
  - correct use of personal protective equipment (PPE)
  - methods used to render equipment safe to inspect, maintain and clean, including lock-out, tag-out and isolation procedures
  - procedures for responding to emergency situations, including emergency shutdown procedure
- handover and long-term shutdown and storage procedures for operating a coal fuel supply system
- procedures and responsibility for reporting problems
- environmental and waste handling requirements and procedures for operating a coal fuel supply system
- recording requirements and procedures relevant to operating a coal fuel supply system.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - a workplace or an environment that accurately reflects performance in a real workplace setting
- resources, equipment and materials:
  - PPE
  - coal fuel supply equipment
  - auxiliary fuel supply equipment
  - fuel and services as required
  - maintenance tools
  - workplace information recording system
- specifications:
  - operating procedures and related advice on equipment operation, including advice on safe work practices and environmental requirements
  - product and process specifications and operating parameters
  - workplace cleaning standards and procedures
  - workplace information recording procedures
  - sampling schedule and procedures.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>



# FBPSUG2021 Operate an ash separation system

## Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

## Application

This unit of competency describes the skills and knowledge required to operate a system to separate ash solids from boiler sluice water by use of clarifiers and filters.

The unit applies to individuals who work under supervision in the sugar milling industry.

All work must be carried out to comply with workplace procedures according to state/territory health and safety regulations, legislation and standards that apply to the workplace.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

## Pre-requisite Unit

Nil

## Unit Sector

Sugar milling (SUG)

## Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare the ash separation system for operation	1.1 Confirm materials are available to meet requirements 1.2 Confirm services are available and ready for operation 1.3 Select, fit and use personal protective equipment according to workplace safety procedures 1.4 Check equipment in readiness for use according to operating

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	procedures 1.5 Set the ash separation process to meet production requirements 1.6 Identify and report health and safety hazards and maintenance requirements
2. Operate the ash separation process	2.1 Start and operate the ash separation system according to operating procedures 2.2 Confirm process performance is maintained within manufacturer's specifications to meet workplace requirements 2.3 Ensure the work area meets workplace cleaning standards
3. Analyse and respond to abnormal performance	3.1 Monitor ash separation system operating conditions 3.2 Take corrective action to rectify causes of abnormal performance 3.3 Implement emergency procedures according to workplace safety procedures
4. Hand over ash separation operations	4.1 Maintain operating log according to workplace procedures 4.2 Carry out handover according to workplace procedures 4.3 Ensure system operators are aware of system and related equipment status at completion of handover
5. Complete ash separation operations	5.1 Collect and dispose of ash according to workplace, environmental and waste handling requirements and procedures 5.2 Identify and report operational maintenance requirements according to workplace procedures 5.3 Record workplace information according to workplace procedures

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"> <li>Interpret workplace information relevant to job role</li> </ul>

Skill	Description
Numeracy	<ul style="list-style-type: none"> <li>Monitor and interpret production and process control indicators and data</li> <li>Estimate storage capacities of ash holding areas</li> <li>Calculate correct quantities of chemicals, including caustic soda and flocculants for use in system</li> </ul>
Navigate the world of work	<ul style="list-style-type: none"> <li>Apply workplace procedures to own role and responsibilities</li> </ul>
Interact with others	<ul style="list-style-type: none"> <li>Use modes of communication suitable to purpose to confirm and clarify understanding</li> </ul>
Get the work done	<ul style="list-style-type: none"> <li>Access and interpret ash separation system process control panels and system</li> <li>Make routine decisions to correct abnormal plant performance of ash separation system</li> </ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPSUG2021 Operate an ash separation system	FDFSUG221A Operate an ash separation system	Updated to meet Standards for Training Packages	Equivalent unit

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# Assessment Requirements for FBPSUG2021 Operate an ash separation system

## Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

## Performance Evidence

An individual demonstrating competency must satisfy all of the elements and performance criteria in this unit.

There must be evidence that the individual has operated an ash separation system in line with workplace contexts and demonstrated each of the following points at least once:

- conducted pre-start checks and followed start-up procedure
- selected, fitted and used required personal protective equipment (PPE)
- maintained work area to meet cleaning standards
- monitored the ash separation system
- recorded operating information
- observed safe chemical preparation and handling
- reported health and safety risks and maintenance requirements
- followed shift handover procedure
- taken corrective action in response to typical operating faults and product and process non-conformance
- safely disposed of ash.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- properties of ash or soot and the impact on filter operation
- functions and operating principles of ash separation system and related equipment
- relationship between vacuum, filter speed and cake permeability
- key health and safety requirements for operating an ash separation system in the workplace:
  - correct use of PPE
  - procedures for responding to emergency situations, including safe shutdown procedure

- health and safety hazards related to operation of the ash removal system, and associated lock-out, tag-out and isolation procedures
- handover procedures for operating an ash separation system
- procedures and responsibility for reporting problems for operating an ash separation system
- environmental and waste handling requirements and procedures relevant to operating an ash separation system
- recording requirements and procedures for operating an ash separation system.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - skills must be demonstrated in a sugar milling workplace or an environment that accurately represents workplace conditions
- resources, equipment and materials:
  - PPE
  - ash separation system and related equipment
  - workplace information recording system
- specifications:
  - operating procedures and related advice on equipment operation, including advice on safe work practices and environmental requirements
  - product and process specifications and operating parameters
  - workplace cleaning standards and procedures
  - workplace information recording procedures.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# FBPSUG2022 Operate a waste water treatment system

## Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

## Application

This unit of competency describes the skills and knowledge required to operate waste water treatment systems to comply with workplace requirements, trade waste agreements and site environmental authority.

The unit applies to individuals who work under supervision in the sugar milling industry.

All work must be carried out to comply with workplace procedures according to state/territory health and safety regulations, legislation and standards that apply to the workplace.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

## Pre-requisite Unit

Nil

## Unit Sector

Sugar milling (SUG)

## Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare the waste water treatment process for operation	1.1 Confirm chemicals and test equipment are ready for use 1.2 Confirm services are available and ready for operation 1.3 Select, fit and use personal protective equipment according to workplace safety procedures

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	1.4 Conduct pre-operational checks according to operating procedures 1.5 Calibrate instrumentation and test equipment according to operating specifications 1.6 Identify and report health and safety hazards and maintenance requirements according to workplace safety procedures
2. Operate and monitor the waste water treatment process	2.1 Start the waste water treatment system according to operating procedures 2.2 Confirm operating condition is maintained within operating requirements 2.3 Monitor, test and adjust waste water quality according to operating procedures 2.4 Operate first flush systems during rainfall events 2.5 Ensure the work area is maintained to workplace cleaning standards
3. Analyse and respond to abnormal performance	3.1 Analyse water condition and plant operating conditions according to workplace procedures and manufacturer's guidelines 3.2 Take corrective action in response to hazards, out-of-specification test results and/or plant performance 3.3 Implement emergency procedures according to workplace safety procedures
4. Hand over waste water treatment system	4.1 Maintain workplace records according to workplace procedures 4.2 Carry out handover according to workplace procedures 4.3 Ensure operators are aware of system status and related equipment at completion of handover
5. Shut down the waste water treatment system	5.1 Safely shut down the system according to operating procedures 5.2 Prepare the system for storage in shutdown mode according to operating procedures 5.3 Identify and report operational maintenance requirements according to workplace procedures

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"><li>Interpret information in workplace documentation</li></ul>
Numeracy	<ul style="list-style-type: none"><li>Interpret production and process control indicators and data</li></ul>
Navigate the world of work	<ul style="list-style-type: none"><li>Apply workplace procedures relevant to own role</li></ul>
Interact with others	<ul style="list-style-type: none"><li>Apply workplace communication practices to report issues or provide information</li></ul>
Get the work done	<ul style="list-style-type: none"><li>Access and interpret waste water treatment system process control panels and system</li><li>Make routine decisions to correct abnormal performance of waste water treatment system</li></ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPSUG2022 Operate a waste water treatment system	FDFSUG222A Operate a waste water treatment system	Updated to meet Standards for Training Packages	Equivalent unit

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>



## Assessment Requirements for FBPSUG2022 Operate a waste water treatment system

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

### Performance Evidence

An individual demonstrating competency must satisfy all of the elements and performance criteria in this unit.

There must be evidence that the individual has operated a waste water treatment system in line with workplace contexts and demonstrated each of the following points at least once:

- conducted pre-start checks of equipment and services
- selected, fitted and used required personal protective equipment (PPE)
- operated, monitored and adjusted waste water treatment system according to operating procedures
- maintained work area to meet cleaning standards
- handled chemicals safely
- reported health and safety risks and maintenance requirements
- performed shutdown procedures
- conducted shift handover procedure
- taken corrective action in response to typical operating faults, out-of-specification results or non-compliance
- recorded waste water treatment information
- followed waste water system operating procedures.

### Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- equipment purpose and operating principles of waste water treatment equipment and methods
- water cycles for trade waste, storm water and sewerage, including sources and flow patterns
- purpose of chemicals used in waste water treatment systems
- purpose of first flush systems and their relationship with the waste water treatment system

- typical causes of non-conforming water quality, and corrective action required
- key health and safety requirements for operating waste water treatment systems:
  - hazards related to waste water system operation, and associated control measures
  - correct use of PPE
  - lock-out, tag-out and isolation procedures
- procedures for operational and long-term shutdown
- environmental issues and controls for operating waste water treatment systems:
  - company policy relating to environmental performance
  - waste characteristics and treatment methods
  - waste handling requirements and procedures
- procedures and responsibility for reporting problems for operating waste water treatment systems
- recording requirements and procedures for operating waste water treatment systems.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - skills must be demonstrated in a sugar milling workplace or an environment that accurately represents workplace conditions
- resources, equipment and materials:
  - PPE
  - waste water treatment system and related chemicals
  - water testing equipment
  - workplace information recording system
- specifications:
  - operating procedures and related advice on equipment operation
  - water quality sampling and test procedures
  - workplace cleaning standards and procedures
  - workplace information requirements and procedures.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## FBPSUG2023 Operate a cooling water system

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

### Application

This unit of competency describes the skills and knowledge required to operate cooling towers or spray ponds to supply treated, cool water for factory requirements.

The unit applies to individuals who work under supervision in the sugar milling industry.

All work must be carried out to comply with workplace procedures according to state/territory health and safety regulations, legislation and standards that apply to the workplace.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

### Pre-requisite Unit

Nil

### Unit Sector

Sugar milling (SUG)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare the cooling tower for operation	1.1 Follow tower cleaning procedures and complete cleaning records according to workplace procedures 1.2 Confirm chemicals are available and delivery systems are ready for operation 1.3 Ensure make-up water supply is available and meets quality requirements

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	1.4 Select, fit and use personal protective equipment according to workplace safety procedures 1.5 Conduct pre-operational checks according to operating procedures 1.6 Identify and report health and safety hazards and maintenance requirements to appropriate personnel
2. Start and monitor cooling tower	2.1 Start the system according to operating procedures 2.2 Confirm operating condition and cleanliness according to operating procedures 2.3 Monitor, test and adjust water quality according to operating procedures 2.4 Ensure the work area is maintained to meet workplace cleaning standards
3. Analyse and respond to abnormal performance	3.1 Check water condition and plant operating conditions for abnormal performance 3.2 Take corrective action in response to hazards, out-of-specification test results or abnormal plant performance 3.3 Implement emergency procedures according to health and safety procedures in the workplace
4. Shut down and clean the cooling water system	4.1 Ensure the timing and sequencing of system shutdown meets production requirements 4.2 Clean the system according to workplace procedures 4.3 Identify and report operational maintenance requirements 4.4 Record workplace information according to workplace procedures

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"> <li>Interpret information in workplace documentation</li> </ul>

Skill	Description
Numeracy	<ul style="list-style-type: none"><li>Monitor and interpret cooling water system control indicators and data against specifications</li></ul>
Navigate the world of work	<ul style="list-style-type: none"><li>Understand main tasks, responsibilities and boundaries of own role</li><li>Apply workplace procedures relevant to own role</li></ul>
Interact with others	<ul style="list-style-type: none"><li>Apply workplace communication practices to report issues or provide information</li></ul>
Get the work done	<ul style="list-style-type: none"><li>Access and interpret cooling water system controls and indicators</li><li>Make routine decisions to correct abnormal plant performance</li></ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPSUG2023 Operate a cooling water system	FDFSUG223A Operate a cooling water system	Updated to meet Standards for Training Packages	Equivalent unit

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# Assessment Requirements for FBPSUG2023 Operate a cooling water system

## Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

## Performance Evidence

An individual demonstrating competency must satisfy all of the elements and performance criteria in this unit.

There must be evidence that the individual has operated a cooling water system in line with workplace contexts and demonstrated each of the following points at least once:

- followed set up and start-up procedures
- selected, fitted and used required personal protective equipment (PPE)
- operated, monitored and adjusted cooling water system operation according to procedures
- maintained work area to meet cleaning standards
- reported health and safety risks and maintenance requirements
- cleaned and shut down the cooling water system according to procedures
- taken corrective action in response to typical operating faults, out-of-specification results or non-compliance
- recorded cooling water system information.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- purpose and principles of evaporative cooling and water treatment to prevent corrosion and microbiological fouling
- equipment purpose and operating principles of cooling water system and related equipment, including pumps, valves, tower and fans and dosing system
- cooling water system layout
- purpose of chemicals used for operating a cooling water system
- water quality test procedures for operating a cooling water system
- the effect of make-up water quality on blow down rates and fouling rates
- typical causes of water contamination, and corrective action
- typical causes and consequences of system fouling

- key health and safety requirements for a cooling water system:
  - hazards related to cooling water system operation, and associated control measures
  - correct use of PPE
  - methods used to render equipment safe to inspect, maintain and/or clean, including lock-out, tag-out and isolation procedures
- procedures for operating the emergency cooling water system
- environmental issues and controls, including those relating to chemical and/or container disposal and any overflow of the system to waters of the state
- recording requirements and procedures relevant to operating a cooling water system
- cleaning standards for maintaining the equipment and work area.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - skills must be demonstrated in a sugar milling workplace or an environment that accurately represents workplace conditions
- resources, equipment and materials:
  - PPE
  - cooling water system and related equipment
  - chemicals
  - test equipment
  - communication system
- specifications:
  - relevant standard operating procedures and related advice on equipment operation
  - workplace cleaning standards for the work area workplace information requirements and procedures.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## FBPSUG2024 Perform standard tests on cane samples

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

### Application

This unit of competency describes the skills and knowledge required to perform standard tests on cane samples for routine factory control. Cane sample tests are typically routine, repetitive procedures based on defined methods, and require interpretation of results within clearly defined guidelines.

The unit applies to individuals who work under supervision in the sugar milling industry.

All work must be carried out to comply with workplace procedures according to state/territory health and safety regulations, legislation and standards that apply to the workplace.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

### Pre-requisite Unit

Nil

### Unit Sector

Sugar milling (SUG)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare for testing	1.1 Identify requirements and methods for cane testing 1.2 Confirm testing equipment is available and fit for use according to workplace procedures 1.3 Prepare and label test chemicals and reagents as required by test



Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	method and workplace procedures 1.4 Prepare samples as required by test method 1.5 Conduct and record pre-test checks according to workplace procedures
2. Conduct test	2.1 Conduct test in accordance with test method and test schedule 2.2 Identify and report atypical test results according to workplace procedures 2.3 Record and communicate test results according to workplace procedures 2.4 Follow procedures to repeat or validate results for atypical test results 2.5 Clean, care for and store equipment according to workplace procedures 2.6 Dispose of waste materials according to workplace procedures
3. Record test data in laboratory information system	3.1 Enter results into laboratory information system according to workplace procedures 3.2 Check data and correct data entry errors as required 3.3 Store and retrieve data in the laboratory information system according to workplace procedures 3.4 Produce standard reports from laboratory information system according to workplace procedures

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"> <li>Interpret standard operating procedures, specifications, sampling schemes and schedules</li> </ul>
Numeracy	<ul style="list-style-type: none"> <li>Interpret numerical test data</li> </ul>
Navigate the world of	<ul style="list-style-type: none"> <li>Understand main tasks, responsibilities and boundaries of own role</li> </ul>

Skill	Description
work	<ul style="list-style-type: none"><li>• Apply workplace procedures relevant to own role</li></ul>
Get the work done	<ul style="list-style-type: none"><li>• Complete tasks in logical order</li><li>• Use workplace digital system to record and store results</li></ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPSUG2024 Perform standard tests on cane samples	FDFSUG224A Perform standard tests on cane samples	Updated to meet Standards for Training Packages	Equivalent unit

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# Assessment Requirements for FBPSUG2024 Perform standard tests on cane samples

## Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

## Performance Evidence

An individual demonstrating competency must satisfy all of the elements and performance criteria in this unit.

There must be evidence that the individual has performed standard tests on cane samples in line with workplace contexts and demonstrated each of the following points at least once:

- confirmed availability of test equipment, chemicals and reagents
- prepared required samples
- performed test procedures
- communicated test results
- identified and reported out-of-specification results
- recorded and checked data in the laboratory information system
- cleaned and stored equipment and treated, recycled or disposed of tested materials after testing.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- purpose of the test procedure on cane testing, including the principles of the test method and of equipment used
- terminology relating to cane testing
- specific test methods and procedures for cane
- typical causes of out-of-specification results, and procedure for repeating the analysis on cane samples
- laboratory information system recording and reporting requirements relevant to cane testing.
- safe work procedures, including hazards associated with specific test procedure requirements, working with chemicals and test equipment
- environmental and waste handling requirements and procedures relevant to cane testing.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - skills must be demonstrated in a sugar milling workplace or an environment that accurately represents workplace conditions
- resources, equipment and materials:
  - personal protective equipment
  - test equipment, chemicals and reagents and related equipment
  - materials to be tested
  - laboratory recording and reporting system
- specifications:
  - test methods and procedures
  - sample labelling and recording requirements and procedures
  - workplace procedures including advice on safe work practices and environmental requirements.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# FBPSUG2025 Perform general planing and shaping operations

## Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

## Application

This unit of competency describes the skills and knowledge required to carry out general planing and shaping operations. It excludes the use of CNC planers and shapers. Typical operations include slotting, planing and cutting flats.

The unit applies to individuals who work under supervision in the sugar milling industry.

All work must be carried out to comply with workplace procedures according to state/territory health and safety regulations, legislation and standards that apply to the workplace.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

## Pre-requisite Unit

Nil

## Unit Sector

Sugar milling (SUG)

## Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare for planing and shaping operations	1.1 Identify machining requirements according to job specifications 1.2 Select, fit and use personal protective equipment according to health and safety procedures in the workplace 1.3 Collect and prepare materials to be planed or shaped

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	1.4 Set up planing and shaping equipment for operation 1.5 Conduct pre-operational equipment checks according to operating procedures 1.6 Identify and report health and safety hazards and maintenance requirements according to health and safety procedures
2. Operate planing and shaping equipment to achieve specifications	2.1 Set machining parameters to meet job requirements 2.2 Position and clamp materials for planing and shaping operation 2.3 Start, operate and shut down the planing and shaping equipment according to operating procedures 2.4 Check work against specifications 2.5 Identify non-conforming components, and correct as required 2.6 Undertake basic routine operational maintenance according to workplace procedures 2.7 Ensure the work area is maintained to meet workplace cleaning standards

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"> <li>Identify routine machining requirements, including tolerances, dimensions and finishes, from written work instructions and technical drawings and sketches</li> <li>Interpret standard operating procedures</li> </ul>
Numeracy	<ul style="list-style-type: none"> <li>Select planer/shaper speeds, feeds and stops</li> <li>Measure and calculate to specified tolerances and dimensions</li> <li>Check for conformance to specification</li> </ul>
Navigate the world of work	<ul style="list-style-type: none"> <li>Apply workplace procedures relevant to own role</li> <li>Understand main tasks, responsibilities and boundaries of own role</li> </ul>
Interact with others	<ul style="list-style-type: none"> <li>Follow accepted communication practices to communicate and report information about machining operations, operational</li> </ul>

Skill	Description
	maintenance and safety
Get the work done	<ul style="list-style-type: none"><li>• Recognise and make routine decisions to respond to non-conforming components</li><li>• Identify and correct machining problems, including effects of tool wear, and incorrect set-up</li></ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPSUG2025 Perform general planing and shaping operations	FDFSUG229A Perform general planing and shaping operations	Updated to meet Standards for Training Packages	Equivalent unit

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# Assessment Requirements for FBPSUG2025 Perform general planing and shaping operations

## Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

## Performance Evidence

An individual demonstrating competency must satisfy all of the elements and performance criteria in this unit.

There must be evidence that the individual has performed general planing and shaping operations in line with workplace contexts and demonstrated each of the following points at least once:

- identified planing and shaping requirements
- collected and positioned materials according to job and equipment requirements
- safely set up equipment and conducted pre-operational checks
- selected, fitted and used personal protective equipment (PPE)
- confirmed that components meet specification
- operated, monitored and adjusted process and equipment during operation
- measured components using rulers, calipers and dividers, vernier calipers and micrometers
- safely shut down equipment
- maintained workplace cleaning standards
- reported health and safety risks and maintenance requirements.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- principles and practices for performing general planing and shaping operations
- relevant site operating procedures and practices for general planing and shaping operations
- purpose and operating principles of planing and shaping equipment and accessories, including equipment operating capacities
- care, maintenance and storage of tool parts and accessories
- scope to adjust machining parameters, and related effect on outcome
- the impact of speeds, feeds, coolant, cutting lubricant and materials used on tool life



- hazards related to the operation of the planing and shaping equipment
- workplace cleaning standards for the work area.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - skills must be conducted in a sugar milling workplace or an environment that accurately represents workplace conditions
- resources, equipment and materials:
  - PPE
  - planing and shaping equipment
  - relevant measuring instrumentation
  - materials for planing and/or shaping
  - drawings, templates and specifications as required
- specifications:
  - operating procedures and related advice on safe machine operation, including advice on safe work practices and environmental requirements
  - equipment operating procedures and related information
  - workplace cleaning standards and procedures.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## FBPSUG2026 Perform general drilling operations

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

### Application

This unit of competency describes the skills and knowledge required to carry out general drilling operations using a radial arm drill.

The unit applies to individuals who work under supervision in the sugar milling industry.

All work must be carried out to comply with workplace procedures according to state/territory health and safety regulations, legislation and standards that apply to the workplace.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

### Pre-requisite Unit

Nil

### Unit Sector

Sugar milling (SUG)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare for drilling operations	1.1 Identify drilling requirements according to specifications 1.2 Select, fit and use personal protective equipment according to workplace safety procedures 1.3 Ensure the workplace meets and is maintained according to workplace cleaning standards

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	1.4 Collect and prepare materials to be drilled 1.5 Set up drill according to specified drilling requirements 1.6 Conduct pre-operational equipment checks according to operating procedures 1.7 Identify and report health and safety hazards and maintenance requirements
2. Operate drill to achieve specifications	2.1 Position and clamp materials for drilling operation according to operating procedures 2.2 Start, operate and shut down the drill according to operating procedures 2.3 Check work against specifications 2.4 Identify non-conforming components, and correct as required 2.5 Undertake basic routine operational maintenance according to workplace procedures

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"> <li>Identify drilling-task-related information and specifications from drawings and work instructions</li> </ul>
Numeracy	<ul style="list-style-type: none"> <li>Select drill sizes and drilling speeds and feeds</li> <li>Identify non-conforming hole depths and diameters</li> </ul>
Navigate the world of work	<ul style="list-style-type: none"> <li>Apply workplace procedures relevant to own role</li> <li>Understand main tasks, responsibilities and boundaries of own role</li> </ul>
Interact with others	<ul style="list-style-type: none"> <li>Follow accepted communication practices to exchange information about drilling operations, operational maintenance and safety</li> </ul>
Get the work done	<ul style="list-style-type: none"> <li>Recognise and make routine decisions to respond to non-conforming components</li> <li>Identify and correct routine drilling problems</li> </ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPSUG2026 Perform general drilling operations	FDFSUG226A Perform general drilling operations	Updated to meet Standards for Training Packages	Equivalent unit

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# Assessment Requirements for FBPSUG2026 Perform general drilling operations

## Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

## Performance Evidence

An individual demonstrating competency must satisfy all of the elements and performance criteria in this unit.

There must be evidence that the individual has performed general drilling operations in line with workplace contexts and demonstrated each of the following points at least once:

- identified drilling requirements
- safely set up and conducted pre-start checks of drilling equipment
- selected and fitted personal protective equipment (PPE)
- collected and prepared materials according to job and equipment requirements
- confirmed that drilled components conform to specification
- safely operated, monitored and adjusted drilling process and equipment
- maintained workplace cleaning standards
- safely shut down drilling equipment
- reported health and safety risks and maintenance requirements in the workplace.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- drilling principles and practices
- workplace operating procedures and practices for drilling operations
- purpose and operating principles of drilling and accessories, including equipment operating capacities
- care, maintenance and storage of drill parts and accessories
- scope to adjust machining parameters and related effect on outcome
- the impact of machining parameters and materials used on tool life
- hazards related to the operation of the drill and related equipment
- workplace cleaning standards for the work area relevant to drilling operations.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - skills must be demonstrated in a sugar milling workplace or an environment that accurately represents workplace conditions
- resources, equipment and materials:
  - PPE
  - functioning drills
  - relevant measuring instruments
  - materials to be drilled
  - drawings, templates and specifications as required for task
- specifications:
  - operating procedures and related advice on equipment operation, including advice on safe work practices and environmental requirements
  - workplace information requirements and procedures.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## FBPSUG2027 Perform general lathe operations

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

### Application

This unit of competency describes the skills and knowledge required to carry out general lathe operations on non-CNC lathes using a three and four jaw chuck.

The unit applies to individuals who work under supervision in the sugar milling industry.

All work must be carried out to comply with workplace procedures according to state/territory health and safety regulations, legislation and standards that apply to the workplace.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

### Pre-requisite Unit

Nil

### Unit Sector

Sugar milling (SUG)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare for lathe operations	1.1 Identify machining requirements according to job specifications 1.2 Select, fit and use personal protective equipment according to health and safety procedures 1.3 Collect and prepare materials to be machined 1.4 Set up lathe and tooling for machining operation according to

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	workplace procedures and manufacturer's guidelines 1.5 Conduct pre-operational equipment checks according to operating procedures 1.6 Identify and report health and safety hazards and maintenance requirements according to health and safety procedures
2. Operate lathe to achieve specifications	2.1 Set machining parameters to meet job requirements 2.2 Position materials for lathe operation according to operating procedures 2.3 Start, operate and shut down the lathe according to operating procedures 2.4 Check work for conformance to job specifications 2.5 Identify non-conforming components, and correct as required 2.6 Undertake basic routine operational maintenance according operating procedures 2.7 Ensure the work area is maintained to meet work cleaning standards

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"> <li>Identify routine machining requirements from work instructions and technical drawings and sketches</li> <li>Interpret standard operating procedures</li> </ul>
Numeracy	<ul style="list-style-type: none"> <li>Select lathe speeds, feeds and stops</li> <li>Measure and calculate to specified tolerances and dimensions</li> <li>Check for conformance to specification</li> </ul>
Navigate the world of work	<ul style="list-style-type: none"> <li>Apply workplace procedures relevant to own role</li> <li>Understand main tasks, responsibilities and boundaries of own role</li> </ul>
Interact with others	<ul style="list-style-type: none"> <li>Follow accepted communication practices to communicate and report information about machining operations, operational</li> </ul>



Skill	Description
	maintenance and safety
Get the work done	<ul style="list-style-type: none"><li>• Use measuring equipment to measure materials and machined components</li><li>• Access and interpret lathe speeds and feeds</li><li>• Recognise and respond to non-conforming components</li><li>• Identify and correct machining problems, including effects of tool wear, and incorrect set-up</li></ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPSUG2027 Perform general lathe operations.	FDFSUG227A Perform general lathe operations	Updated to meet Standards for Training Packages	Equivalent unit

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# Assessment Requirements for FBPSUG2027 Perform general lathe operations

## Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

## Performance Evidence

An individual demonstrating competency must satisfy all of the elements and performance criteria in this unit.

There must be evidence that the individual has performed general lathe operations in line with workplace contexts and demonstrated each of the following points at least once:

- identified machining requirements
- collected and prepared materials
- safely set up the lathe and conducted pre-operational checks on equipment
- selected, fitted and used personal protective equipment (PPE)
- operated, monitored and adjusted process and equipment during parallel cutting, parting off, drilling, tapping and knurling
- measured components using rulers, calipers and dividers, vernier calipers and micrometers
- confirmed that work conforms to specification
- safely shut down the lathe
- maintained workplace cleaning standards
- reported health and safety risks and maintenance requirements in the workplace.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- principles and practices for performing general lathe operations
- site operating procedures and practices for lathe operations
- purpose and operating principles of lathe and accessory equipment, including equipment operating capacities
- care, maintenance and storage of tooling, accessories and measuring equipment for lathe operations
- scope to adjust machining parameters, and related effect on outcome
- the impact of speeds, feeds, coolant, cutting lubricant and materials on tool life

- safe work procedures, including awareness of hazards related to the operation of the lathe and related equipment
- workplace cleaning standards for the work area.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - skills must be demonstrated in a sugar milling workplace or an environment that accurately represents workplace conditions
- resources, equipment and materials:
  - PPE
  - lathe and related tooling and equipment
  - relevant measuring instrumentation
  - materials for machining
  - drawings, templates and specifications as required
- specifications:
  - equipment operating procedures and related safety information
  - workplace cleaning standards and procedures.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# FBPSUG2028 Perform general milling operations

## Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

## Application

This unit of competency describes the skills and knowledge required to carry out general milling operations. It excludes the use of dividing heads and CNC mills. Typical operations include slotting and cutting flats.

The unit applies to individuals who work under supervision in the sugar milling industry.

All work must be carried out to comply with workplace procedures according to state/territory health and safety regulations, legislation and standards that apply to the workplace.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

## Pre-requisite Unit

Nil

## Unit Sector

Sugar milling (SUG)

## Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare for milling operations	1.1 Identify milling requirements according to job specifications 1.2 Select, fit and use personal protective equipment according to health and safety procedures 1.3 Collect and prepare materials to be drilled 1.4 Set up milling equipment for operation according to operating

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	procedures 1.5 Conduct pre-operational equipment checks according to operating procedures 1.6 Identify and report health and safety hazards and machine damage or faults according to health and safety procedures
2. Operate milling equipment to achieve specifications	2.1 Set machining parameters to meet job requirements 2.2 Position and clamp materials for milling operation according to operating procedures 2.3 Start, operate and shut down milling equipment according to operating procedures 2.4 Identify non-conforming components against specification, and correct as required 2.5 Undertake basic routine operational maintenance according to operating procedures 2.6 Ensure the work area is maintained to meet workplace cleaning standards

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"> <li>Identify routine machining requirements, including tolerances, dimensions and finishes, from work instructions and technical drawings and sketches</li> <li>Interpret standard operating procedures</li> </ul>
Numeracy	<ul style="list-style-type: none"> <li>Select mill speeds, feeds and stops</li> <li>Measure and calculate to specified tolerances and dimensions</li> <li>Check for conformance to specification</li> </ul>
Navigate the world of work	<ul style="list-style-type: none"> <li>Apply workplace procedures relevant to own role</li> <li>Understand main tasks, responsibilities and boundaries of own role</li> </ul>
Interact with others	<ul style="list-style-type: none"> <li>Follow accepted communication practices to communicate and</li> </ul>

Skill	Description
	report information about machining operations, operational maintenance and safety
Get the work done	<ul style="list-style-type: none"><li>• Recognise and respond to non-conforming components</li><li>• Identify and correct machining problems, including effects of tool wear, and incorrect set-up</li></ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPSUG2028 Perform general milling operations	FDFSUG228A Perform general milling operations	Updated to meet Standards for Training Packages	Equivalent unit

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# Assessment Requirements for FBPSUG2028 Perform general milling operations

## Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

## Performance Evidence

An individual demonstrating competency must satisfy all of the elements and performance criteria in this unit.

There must be evidence that the individual has performed general milling operations in line with workplace contexts and demonstrated each of the following points at least once:

- identified machining requirements
- collected and positioned materials according to job and equipment requirements
- confirmed that components meet specification
- safely set up and conducted pre-operational checks on equipment
- selected, fitted and used personal protective equipment (PPE)
- operated, monitored and adjusted process and equipment during operation to stay within specification
- measured components using rulers, calipers and dividers, vernier calipers and micrometers
- safely shut down equipment
- maintained workplace cleaning standards
- reported health and safety in the workplace risks and maintenance requirements.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- principles and practices for performing general milling operations
- site operating procedures and practices for general milling operations
- purpose and operating principles of milling equipment and accessories, including equipment operating capacities
- care, maintenance and storage of milling operations tool parts and accessories
- scope to adjust machining parameters, and related effect on outcome
- the impact of speeds, feeds, coolant, cutting lubricant and materials on tool life

- safe work procedures, including awareness of hazards related to the operation of the mill and related equipment
- workplace cleaning standards for the work area.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - skills must be demonstrated in a sugar milling workplace or an environment that accurately represents workplace conditions
- resources, equipment and materials:
  - PPE
  - mill and related equipment
  - relevant measuring instrumentation
  - materials for machining
  - drawings, templates and specifications as required
- specifications:
  - operating procedures and related advice on safe mill operation, including advice on safe work practices and environmental requirements
  - equipment operating procedures and related information
  - workplace cleaning standards and procedures.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>



## FBPSUG3001 Drive a cane locomotive

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

### Application

This unit of competency describes the skills and knowledge required to prepare, start-up, operate and shut down a cane locomotive.

The unit applies to individuals who work in the sugar milling industry driving locomotives that may or may not be fitted with brake vans and may be single- or double-headed.

All work must be carried out to comply with workplace procedures according to state/territory health and safety regulations, legislation and standards that apply to the workplace.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

### Pre-requisite Unit

Nil

### Unit Sector

Sugar milling (SUG)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare for locomotive operation	1.1 Identify and report hazards and maintenance requirements according to workplace procedures 1.2 Check workplace records to confirm operational status 1.3 Select, fit and use personal protective equipment according to workplace procedures

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	<p>1.4 Carry out pre-operational checks and warm-up procedures of locomotive and related equipment, confirm operational status of equipment, and report any faults according to workplace procedures</p> <p>1.5 Conduct pre-departure checks to confirm locomotive and related equipment meet operating standards</p> <p>1.6 Fit appropriate end of train tail flags and brake vans according to operating procedures</p>
2. Start, operate and monitor locomotive	<p>2.1 Obtain authority to move locomotive</p> <p>2.2 Operate locomotive to meet transport requirements</p> <p>2.3 Monitor locomotive, rake and related equipment to maintain optimum operating condition, and report operating faults or defects</p> <p>2.4 Monitor operation against schedule, and communicate information as required to appropriate personnel</p>
3. Analyse and respond to abnormal conditions and performance	<p>3.1 Maintain safety of personnel and equipment in response to hazardous situations and conditions</p> <p>3.2 Assess faults to determine risk of injury to personnel or damage to equipment</p> <p>3.3 Take corrective action in response to hazards, abnormal or unacceptable equipment condition or performance</p> <p>3.4 Implement emergency procedures according to workplace safety procedures</p>
4. Prepare for shift changeover	<p>4.1 Maintain workplace records according to workplace procedures</p> <p>4.2 Carry out shift changeover according to workplace procedures</p> <p>4.3 Ensure changeover drivers are aware of locomotive and related equipment status, track conditions and incidents at completion of handover</p>
5. Shut down locomotive	<p>5.1 Follow shutdown procedures for master and slave locomotives according to operating procedures</p> <p>5.2 Confirm and complete shutdown sequence and secure locomotives according to operating procedures</p>
6. Complete work	<p>6.1 Record workplace information according to workplace procedures</p> <p>6.2 Clean, store and park plant and equipment according to workplace procedures</p>

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	6.3 Identify and report defects and faults according to workplace requirements

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"> <li>Interpret workplace requirements, standard operating procedures and schedules relevant to job role</li> </ul>
Oral communication	<ul style="list-style-type: none"> <li>Speak clearly and use accurate terminology to communicate with others</li> </ul>
Navigate the world of work	<ul style="list-style-type: none"> <li>Understand main tasks, responsibilities and boundaries of own role</li> <li>Apply workplace procedures relevant to own role</li> </ul>
Interact with others	<ul style="list-style-type: none"> <li>Apply communication practices and protocols relevant to own role</li> </ul>
Get the work done	<ul style="list-style-type: none"> <li>Complete tasks in required sequence and according to schedule</li> <li>Apply decision-making processes to control hazards in routine situations</li> </ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPSUG3001 Drive a cane locomotive	FDFSUG206A Drive a cane locomotive	Updated to meet Standards for Training Packages  Code changed to reflect AQF alignment	Equivalent unit

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# Assessment Requirements for FBPSUG3001 Drive a cane locomotive

## Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

## Performance Evidence

An individual demonstrating competency must satisfy all of the elements and performance criteria in this unit.

There must be evidence that the individual has driven a cane locomotive in line with workplace contexts and demonstrated each of the following points at least once:

- selected, fitted and used personal protective equipment (PPE)
- reported health and safety risks and maintenance requirements in the workplace
- carried out all required pre-departure checks
- prepared the locomotive and related equipment
- safely operated a locomotive and associated equipment
- communicated with other personnel using required communication methods and equipment
- ensured safety of personnel and equipment
- taken corrective action in response to abnormal or unacceptable performance of control systems or operating equipment
- carried out a shift changeover
- safely shut down a locomotive
- completed workplace records
- cleaned and stored plant and equipment.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- functions and operating principles of a locomotive and related equipment, including the layout and purpose of the principal mechanical, pneumatic and electrical systems of all equipment and components and impact of different alternatives on efficient performance
- safe operating capacities of equipment relevant to cane locomotive operations
- acceptable bin and rake condition

- methods used to render equipment safe to inspect, maintain or clean, including lock-out, tag-out and isolation procedures
- procedures for responding to unplanned events or emergencies including derailments, breakdowns, accidents or track damage
- safe operating conditions and speeds, including awareness of typical conditions and situations that are hazardous, and appropriate preventative action
- safety issues when parking/dropping off damaged bins or locomotives
- key health and safety requirements in the workplace:
  - health and safety hazards and associated control measures
  - manual handling procedures for operating a cane locomotive
  - correct use of PPE
- communication procedures, methods and equipment, including warning devices and signals
- reporting and recording responsibilities relevant to cane locomotive operations.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - skills must be demonstrated in a cane railway system or an environment that accurately represents workplace conditions
- resources, equipment and materials:
  - PPE
  - locomotive and related equipment, including brake vans
  - relevant equipment required to carry out inspections, checks and monitoring
  - communications equipment
  - workplace information recording system
- specifications:
  - running slips and/or daily schedule
  - operating procedures and related advice on equipment operation
  - workplace procedures for safe work practices.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## FBPSUG3002 Control cane traffic movements

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

### Application

This unit of competency describes the skills and knowledge required to control movements on the cane railway delivery and transport network to ensure safe train separation, efficient running of the traffic system and continuous, fresh supply of cane to the mill.

The unit applies to individuals who work in the sugar milling industry and are responsible for controlling cane transport and truck movements.

All work must be carried out to comply with workplace procedures according to state/territory health and safety regulations, legislation and standards that apply to the workplace.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

### Pre-requisite Unit

Nil

### Unit Sector

Sugar milling (SUG)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare for operation	1.1 Select, fit and use personal protective equipment according to workplace procedures 1.2 Participate in shift handover process to identify status and occurrences affecting traffic control

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	<p>1.3 Confirm status of traffic activities on the cane railway network and in empty and full yards</p> <p>1.4 Establish communication with drivers, crews and other relevant personnel according to workplace procedures</p>
2. Implement schedule	<p>2.1 Issue train movement instructions to maintain safe operations</p> <p>2.2 Use the communication system to provide timely information to relevant personnel</p>
3. Issue train clearances	<p>3.1 Issue clearance instructions to maintain train separation according to workplace procedures</p> <p>3.2 Issue point-to-point clearances according to workplace procedures</p>
4. Maintain train separation	<p>4.1 Control access to the rail network, including access by drivers, navvies, contractors, harvesting crews and other third parties according to workplace procedures</p> <p>4.2 Arrange and coordinate train passing</p> <p>4.3 Manage transportation movements using rail network procedures and systems</p>
5. Maintain efficient running	<p>5.1 Coordinate and adjust transport departures and arrivals according to workplace procedures</p> <p>5.2 Monitor train running times and act on opportunities to improve efficiency</p> <p>5.3 Maximise train loads within load limits according to workplace procedures</p> <p>5.4 Manage train passing to minimise delays and maintain safe operations</p> <p>5.5 Monitor and optimise overall operating efficiencies</p>
6. Complete traffic control operations	<p>6.1 Record train movements and related workplace information according to workplace procedures</p> <p>6.2 Ensure recording systems and advice reflect accurate information at the time of handover</p> <p>6.3 Carry out handover according to workplace procedures</p> <p>6.4 Ensure traffic controllers are aware of system and related equipment status at completion of handover</p>



## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"> <li>Interpret routine information on marshalling strategy, traffic schedule and running sheets, and standard operating procedures</li> <li>Interpret log books, incident reports, mimic boards and related documentation</li> </ul>
Oral communication	<ul style="list-style-type: none"> <li>Speak clearly and use accurate terminology to communicate with others</li> </ul>
Numeracy	<ul style="list-style-type: none"> <li>Interpret transport information system indicators for traffic movements and scheduling</li> <li>Calculate loads and compare with load limits</li> </ul>
Navigate the world of work	<ul style="list-style-type: none"> <li>Apply workplace procedures relevant to own role</li> <li>Understand own role and associated responsibilities</li> </ul>
Interact with others	<ul style="list-style-type: none"> <li>Apply communication practices and protocols relevant to own role</li> </ul>
Get the work done	<ul style="list-style-type: none"> <li>Complete tasks in required sequence and according to schedule</li> <li>Use print and screen-based information technology</li> <li>Make routine decisions to correct abnormal system performance</li> <li>Recognise, respond to and solve problems related to cane traffic movements</li> </ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPSUG3002 Control cane traffic movements	FDFSUG302A Control cane traffic movements	Updated to meet Standards for Training Packages	Equivalent unit

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# Assessment Requirements for FBPSUG3002 Control cane traffic movements

## Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

## Performance Evidence

An individual demonstrating competency must satisfy all of the elements and performance criteria in this unit.

There must be evidence that the individual has controlled cane traffic movements in line with workplace contexts and demonstrated each of the following points at least once:

- selected, fitted and used personal protective equipment (PPE)
- calculated efficient loads within equipment capacities and rail system limits
- confirmed status of traffic movements
- operated transport information and communication systems to control access, monitor and maintain safe operations and schedules
- provided traffic information, instructions and clearances to personnel
- coordinated train running to optimal overall efficiency
- prepared for and conducted handover
- recorded traffic control information.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- conditions that are unusual or unplanned, and related options for response, including implications of different options for maintaining safe and efficient traffic movement
- communication systems, protocols and standards
- factors that impact on efficient performance, including:
  - labour
  - crib breaks
  - holding locos
  - waiting time (last bin)
  - fuel use
  - loads

- factors that impact on the scheduling of traffic movements, including the relationship between these factors
- procedures for coordinating locomotive and/or truck departures and arrivals and train crossings
- procedures for recording information
- personnel to be notified of traffic movement instructions and advice, including the information relevant to each group/person
- requirements of relevant health and safety legislation, standards and industry codes of practice relating to work responsibilities.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - skills must be demonstrated in a cane transport system or an environment that accurately represents workplace conditions
- resources, equipment and materials:
  - PPE
  - transport system information and communication systems and equipment
  - workplace information recording systems
- specifications:
  - operating procedures and related advice, including advice on safe work practices
  - workplace information required to determine and monitor safe traffic movements on the cane transport network, including traffic schedule to assess, adjust and monitor work
  - operating procedures related to work responsibilities.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# FBPSUG3003 Adjust cane delivery schedules to meet daily milling requirements

## Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

## Application

This unit of competency describes the skills and knowledge required to adjust cane delivery schedules to meet daily sugar mill operational requirements.

The unit applies to individuals who work in the sugar milling industry and are responsible for scheduling operations.

All work must be carried out to comply with workplace procedures according to state/territory health and safety regulations, legislation and standards that apply to the workplace.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

## Pre-requisite Unit

Nil

## Unit Sector

Sugar milling (SUG)

## Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Identify daily factory requirements for cane supply	1.1 Access workplace information for daily cane supply requirements 1.2 Identify factors that impact on cane supply

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
2. Calculate zero hour	2.1 Calculate zero hour to take account of daily variables 2.2 Inform relevant personnel of zero hour according to workplace procedures
3. Amend daily bin allotment and bin allocations	3.1 Determine bin allotment requirements 3.2 Calculate daily bin allotment and bin allocations based on amended requirements 3.3 Amend schedule for bin allocation and locomotive runs to harvest groups to meet requirements 3.4 Document and submit amended schedule for approval
4. Monitor supply and demand to maintain and adjust schedule	4.1 Coordinate and adjust transport departures and arrivals to meet schedule requirements 4.2 Use regular two-way communication with locomotive drivers and harvester operators to maintain schedules and safe operations 4.3 Monitor cane stock and deliveries against schedule 4.4 Identify variations between supply and schedule and take corrective action as required 4.5 Identify resource implications of amended schedules, and access resources to meet requirements 4.6 Monitor progress against schedule according to workplace procedures

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"><li>Interpret information from various sources of workplace information</li></ul>
Writing	<ul style="list-style-type: none"><li>Record cane scheduling information and data in required format</li></ul>
Oral communication	<ul style="list-style-type: none"><li>Speak clearly and use accurate terminology to communicate with others</li></ul>

Skill	Description
Numeracy	<ul style="list-style-type: none"><li>Interpret system information and data</li><li>Identify network yard and siding capacities, and bin weights</li></ul>
Navigate the world of work	<ul style="list-style-type: none"><li>Apply workplace procedures relevant to own role</li><li>Understand own role and associated responsibilities in terms of workplace information, and how it contributes to the work of others</li></ul>
Interact with others	<ul style="list-style-type: none"><li>Apply communication practices and protocols relevant to own role</li></ul>
Get the work done	<ul style="list-style-type: none"><li>Plan, organise, prioritise and adjust cane delivery scheduling within time and resource constraints</li><li>Access, interpret and enter system information</li><li>Recognise and respond to problems related to cane schedule variations</li></ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPSUG3003 Adjust cane delivery schedules to meet daily milling requirements	FDFSUG303A Adjust cane delivery schedules to meet daily milling requirements	Updated to meet Standards for Training Packages	Equivalent unit

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## Assessment Requirements for FBPSUG3003 Adjust cane delivery schedules to meet daily milling requirements

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

### Performance Evidence

An individual demonstrating competency must satisfy all of the elements and performance criteria in this unit.

There must be evidence that the individual has adjusted cane delivery schedules to meet daily milling requirements in line with workplace contexts and demonstrated each of the following points at least once:

- calculated and amended daily schedule bin allotments and bin allocations
- applied workplace information to calculate zero hour
- confirmed resources and personnel to meet amended schedule
- coordinated and adjusted locomotive movements, and responded to update schedule
- reallocated cane bin deliveries to harvesters
- used communication systems and equipment
- maintained workplace records.

### Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- conditions that are unusual or unplanned, and options for response, including the implications of different options for maintaining the continuous and efficient supply of cane
- communication systems, protocols and standards
- purpose and use of a computerised traffic system
- purpose and procedure for calculating zero hour
- factors that can affect the calculation of zero hour, including:
  - factory performance, including planned and unplanned mill stops
  - weather
  - transport system delays, including locomotive/motor truck breakdown
  - availability of empty bins, taking into account mixed bin fleet if appropriate



- availability of full-yard space
- availability of empty-yard space
- siding status
- track infrastructure condition
- harvester failure
- factors that impact on efficient performance, including:
  - labour
  - crib breaks
  - holding locos
  - waiting time (last bin)
  - fuel use
  - loads
- personnel to be notified of zero hour and related amendments to schedule, including the information relevant to each group/person
- work schedule planning, including the inter-relationships between:
  - planned crushing rate
  - current stocks (yards and sidings)
  - yard and siding capacities
  - average bin weights
  - harvesting rosters
  - cut-to-crush delays
  - loco loads and performance
  - bin fleet size and availability
  - rail network capacity
  - labour requirements and availability.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - skills must be demonstrated in sugar milling workplace or an environment that accurately represents workplace conditions
- resources, equipment and materials:
  - transport system and associated information and communication systems and equipment
  - workplace information to assess, adjust and monitor work progress against schedule
  - workplace information recording system
- specifications:
  - operating procedures related to work responsibilities.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## FBPSUG3004 Drive a master-slave locomotive

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

### Application

This unit of competency describes the skills and knowledge required to drive a master-slave locomotive in a cane railway system.

The unit applies to individuals who work in the sugar milling industry and are required to operate a slave locomotive.

All work must be carried out to comply with workplace procedures according to state/territory health and safety regulations, legislation and standards that apply to the workplace.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

### Pre-requisite Unit

Prerequisite unit of competency for this unit is:

- FBPSUG3001 Drive a cane locomotive

### Unit Sector

Sugar milling (SUG)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare and connect the slave locomotive for operation	1.1 Select, fit and use personal protective equipment according to health and safety procedures in the workplace 1.2 Identify and report health and safety hazards and operational maintenance requirements

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	1.3 Check workplace records to confirm operational status 1.4 Set the remote control system according to operating requirements 1.5 Prepare slave locomotive and select required operating mode 1.6 Conduct pre-start checks according to operating procedures
2. Prepare and connect the master locomotive	2.1 Confirm the system is in link mode 2.2 Check control system and conduct system self-test to confirm that the system is operating effectively according to workplace procedures and manufacturer's guidelines 2.3 Confirm braking system is operating effectively 2.4 Establish and confirm total control of the system 2.5 Conduct pre-departure tests to confirm control system and locomotive equipment meet operating standards 2.6 Couple front and rear train safely to form a single train according to operating procedures
3. Start, operate and monitor locomotive	3.1 Start and operate master-slave locomotive according to transport requirements 3.2 Monitor condition of locomotive equipment according to operating procedures 3.3 Assess faults to determine risk of injury to personnel or damage to equipment 3.4 Take corrective action to address abnormal or unacceptable equipment condition or performance 3.5 Implement emergency procedures according to workplace procedures
4. Prepare for shift handover	4.1 Maintain workplace records according to workplace procedures 4.2 Carry out handover according to workplace procedures 4.3 Ensure changeover drivers are aware of locomotive and related equipment status, track conditions and incidents at completion of handover
5. Shut down locomotive	5.1 Follow shutdown procedures for master and slave locomotives 5.2 Confirm and complete shutdown sequence and secure locomotives according to operating procedures

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
6. Complete work	6.1 Record workplace information according to workplace procedures 6.2 Clean, store and park plant and equipment 6.3 Identify and report defects and faults according to workplace procedures

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"> <li>Interpret routine information on marshalling strategy, traffic schedule log and running sheets, and standard operating procedures</li> </ul>
Oral communication	<ul style="list-style-type: none"> <li>Speak clearly and use accurate terminology to communicate with others</li> </ul>
Numeracy	<ul style="list-style-type: none"> <li>Monitor and interpret system control indicators and data</li> </ul>
Navigate the world of work	<ul style="list-style-type: none"> <li>Understand main tasks, responsibilities and boundaries of own role</li> <li>Apply workplace procedures relevant to own role</li> </ul>
Interact with others	<ul style="list-style-type: none"> <li>Apply communication practices and protocols relevant to own role</li> </ul>
Get the work done	<ul style="list-style-type: none"> <li>Complete tasks in required sequence and according to schedule</li> <li>Apply decision-making processes to control hazards in routine situations</li> <li>Use screen-based information technology</li> <li>Make routine decisions to correct abnormal system performance and control hazards in routine situations</li> <li>Recognise and respond to routine problems</li> </ul>

## Unit Mapping Information

Code and title	Code and title	Comments	Equivalence status
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current version	previous version		
FBPSUG3004 Drive a master-slave locomotive	FDFSUG301A Drive a master-slave locomotive	Updated to meet Standards for Training Packages	Equivalent unit

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# Assessment Requirements for FBPSUG3004 Drive a master-slave locomotive

## Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

## Performance Evidence

An individual demonstrating competency must satisfy all of the elements and performance criteria in this unit.

There must be evidence that the individual has driven a master-slave locomotive in line with workplace contexts and demonstrated each of the following points at least once:

- carried out all required pre-departure checks
- selected, fitted and used personal protective equipment (PPE)
- reported health and safety risks and maintenance requirements
- prepared and connected the master and slave locomotives, systems and operating settings
- safely started and operated the master-slave locomotive and associated equipment
- communicated with other personnel using available equipment
- monitored locomotive and equipment operating condition
- assessed equipment faults to determine appropriate corrective action
- took corrective action in response to abnormal or unacceptable performance of control systems or operating equipment
- carried out a shift changeover
- recorded shift information
- safely shut down the master-slave locomotive and associated equipment
- cleaned and stored plant and equipment.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- communication procedures, methods and equipment, including an understanding of warning devices and signals
- functions and operating principles of master and slave locomotive operating equipment
- purpose and limitations of protective clothing and equipment for driving a master and slave locomotive

- purpose of the master and slave locomotives in controlling the train, and operating principles of all instruments and controls
- safe operating capacities of equipment
- typical faults that can occur when operating a locomotive in a master-slave configuration and how to assess severity and risk in order to determine appropriate corrective action
- key health and safety requirements for driving a master and slave locomotive in the workplace:
  - health and safety hazards related to driving a locomotive and associated control measures
  - correct use of PPE
- procedures for responding to unplanned events or emergencies including derailments, breakdowns, accidents or track damage.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - skills must be demonstrated in a cane railway system or an environment that accurately represents workplace conditions
- resources, equipment and materials:
  - PPE
  - master and slave locomotive and related equipment
  - relevant equipment required to carry out inspections, checks and monitoring
  - communications equipment
  - workplace information recording system
- specifications:
  - operating procedures and related advice, including advice on safe work practices
  - workplace information, including running slips and daily schedule, to advise of driving requirements
  - operating procedures and related advice on equipment operation.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>



## FBPSUG3005 Operate a sugar system

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

### Application

This unit of competency describes the skills and knowledge required to prepare and operate an integrated group of sugar milling sub-systems or unit operations in the sugar milling industry.

The unit applies to individuals who work in one or more connected unit operations, including preparation, crushing and power generation.

All work must be carried out to comply with workplace procedures according to state/territory health and safety regulations, legislation and standards that apply to the workplace.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

### Pre-requisite Unit

Nil

### Unit Sector

Sugar milling (SUG)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare the system for operation	1.1 Confirm supply of materials to meet production requirements 1.2 Prepare work area for operation according to workplace procedures 1.3 Confirm services as available and ready for operation

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	1.4 Check equipment to confirm readiness for use according to workplace procedures and manufacturer's guidelines 1.5 Select, fit and use personal protective equipment according to workplace safety procedures
2. Operate and monitor the system	2.1 Start the system according to workplace procedures 2.2 Confirm process performance is maintained within specification 2.3 Operate system to optimise performance for the current factory conditions within limits of manufacturer's specifications 2.4 Monitor equipment to confirm operating condition 2.5 Ensure system outputs meet specification
3. Hand over the system	3.1 Maintain workplace records according to workplace procedures 3.2 Carry out handover according to workplace procedures 3.3 Ensure operators are aware of system and related equipment status at completion of handover
4. Shut down the system	4.1 Identify the appropriate shutdown procedure for operational and long-term shutdown conditions 4.2 Collect, treat and dispose of or recycle waste generated by both the process and cleaning procedures 4.3 Safely shut down the system according to workplace procedures and manufacturer's recommendations 4.4 Prepare the system for storage in shutdown mode 4.5 Identify and address operational maintenance requirements according to workplace procedures
5. Contribute to continuous improvement of the system	5.1 Identify and investigate opportunities for improvement 5.2 Develop and implement proposals for improvements within company planning arrangements

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Writing	<ul style="list-style-type: none"> <li>Record information in required format</li> <li>Communicate proposed improvements in clearly constructed text</li> </ul>
Numeracy	<ul style="list-style-type: none"> <li>Monitor and interpret system control indicators and data</li> </ul>
Navigate the world of work	<ul style="list-style-type: none"> <li>Apply workplace procedures relevant to own role</li> <li>Understand own role and associated responsibilities</li> </ul>
Interact with others	<ul style="list-style-type: none"> <li>Apply workplace communication practices to report issues or provide information</li> </ul>
Get the work done	<ul style="list-style-type: none"> <li>Access and interpret sugar system control panels and system indicators</li> <li>Make decisions to correct abnormal plant performance within level of responsibility</li> <li>Identify and propose sugar system process, product or service improvements within scope of own role</li> </ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPSUG3005 Operate a sugar system	FDFSUG309A Operate a sugar system	Updated to meet Standards for Training Packages	Equivalent unit

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# Assessment Requirements for FBPSUG3005 Operate a sugar system

## Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

## Performance Evidence

An individual demonstrating competency must satisfy all of the elements and performance criteria in this unit.

There must be evidence that the individual has operated a sugar system in line with workplace contexts and demonstrated each of the following points at least once:

- selected, fitted and used personal protective equipment (PPE)
- conducted pre-start checks, prepared the work area and followed start-up procedure
- safely operated, monitored and adjusted sugar system to maintain process within specified parameters
- reported and/or recorded process and production and corrective action
- conducted shift handover procedure
- shut down the system according to procedures
- planned maintenance and cleaning procedures to minimise disruption
- identified and developed proposals for system improvements.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- equipment purpose and operation, including sugar system process controls
- relevant procedures, specifications and operating parameters for the system and individual units
- process improvement procedures and related consultative arrangements
- purpose and principles of the system, including process optimisation
- key health and safety requirements for operating a sugar system:
  - hazards, risks, controls and methods for monitoring processes within the system
  - correct use of PPE
  - safe work procedures
- operational maintenance and cleaning requirements of equipment in system

- environmental management requirements for operating a sugar system
- recording requirements and procedures for operating a sugar system.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - skills must be demonstrated in a sugar milling workplace or an environment that accurately represents workplace conditions
- resources, equipment and materials:
  - PPE
  - sugar system equipment, processes and related materials and services
  - workplace information recording systems
- specifications:
  - operating procedures and related information on safe work practices and environmental requirements
  - product and process specifications and operating parameters.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## FBPSUG3006 Monitor a sugar mill powerhouse

### Modification History

Release	Comments
Release 1	This version released with the FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

### Application

This unit of competency describes the skills and knowledge required to operate and monitor one or more turbines with attached alternators supplying factory power. It applies to both continuous and short-term powerhouse operation, including start-up and shutdown after a prolonged break.

The unit applies to individuals working in the sugar milling industry. The work is typically carried out in liaison with an electrician.

All work must be carried out to comply with workplace procedures according to state/territory health and safety regulations, legislation and standards that apply to the workplace.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

### Pre-requisite Unit

Prerequisite unit of competency for this unit is:

- UEPOPL001A Licence to operate a steam turbine.

### Unit Sector

Sugar milling (SUG)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare to operate the powerhouse	1.1 Select, fit and use personal protective equipment according to workplace safety procedures

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	1.2 Run warm-up sequence of turbines and alternators in preparation for handover from local powerhouse to powerhouse consul
2. Monitor powerhouse operation	2.1 Monitor powerhouse output against site requirements 2.2 Monitor equipment to confirm operating condition according to workplace requirements 2.3 Ensure the workplace meets cleaning standards
3. Analyse and respond to abnormal performance	3.1 Analyse plant operating data and conditions to identify causes of abnormal performance 3.2 Take corrective action in response to workplace hazards and abnormal plant performance 3.3 Implement emergency procedures according to health and safety procedures
4. Hand over powerhouse operation	4.1 Maintain workplace records according to workplace procedures 4.2 Carry out handover according to workplace procedures 4.3 Notify powerhouse operators of powerhouse and related equipment status
5. Shut down the powerhouse	5.1 Identify the powerhouse shut down procedure and implement 5.2 Prepare the powerhouse for storage in shutdown mode 5.3 Identify and report operational maintenance requirements according to workplace procedures

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Oral communication	<ul style="list-style-type: none"> <li>Speak clearly and use accurate terminology to communicate with others</li> </ul>
Numeracy	<ul style="list-style-type: none"> <li>Monitor and interpret powerhouse control indicators and data</li> </ul>
Navigate the world of	<ul style="list-style-type: none"> <li>Apply workplace procedures relevant to own role</li> </ul>

Skill	Description
work	<ul style="list-style-type: none"><li>Understand own role and associated responsibilities</li></ul>
Interact with others	<ul style="list-style-type: none"><li>Apply communication practices and protocols relevant to own role</li></ul>
Get the work done	<ul style="list-style-type: none"><li>Access and interpret powerhouse control panels and system</li><li>Make decisions to correct abnormal plant performance</li><li>Identify and correct problems within own level of responsibility</li></ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPSUG3006 Monitor a sugar mill powerhouse	FDFSUG306A Monitor a sugar mill powerhouse	Updated to meet Standards for Training Packages	Equivalent unit

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>



# Assessment Requirements for FBPSUG3006 Monitor a sugar mill powerhouse

## Modification History

Release	Comments
Release 1	This version released with the FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

## Performance Evidence

An individual demonstrating competency must satisfy all of the elements and performance criteria in this unit. There must be evidence that the individual has monitored a sugar mill powerhouse in line with workplace contexts and demonstrated each of the following points at least once:

- selected, fitted and used personal protective equipment (PPE)
- conducted warm-up sequence
- confirmed that turbines and alternators are ready for warm-up and operation
- handed over control to operating consul
- performed run-up procedures in both manual and automatic modes
- monitored powerhouse operation
- maintained cleaning standards in work area
- performed shift handover procedure
- recorded operating information
- taken corrective action in response to abnormal or unacceptable performance
- applied an understanding of emergency trip procedure and related re-start.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- operating principles of process control, including the relationship between control panels and systems and the physical equipment
- purpose and principles of power generation, including the impact of out-of-range frequency voltage on equipment operation
- operating principles of powerhouse, and instrumentation components, purpose and operation, including the requirement to bar over alternators on start-up, shutdown and emergency stops
- layout of powerhouse, including location of overload protection for equipment and switches

- key health and safety requirements for sugar mill powerhouse operations:
  - hazards related to powerhouse operation, and associated control measures
  - correct use of PPE
  - methods used to render equipment safe to inspect, maintain and/or clean, including lock-out, tag-out and isolation procedures
  - procedures for responding to emergency situations, including safe shutdown procedure
- handover and long-term shutdown and storage procedures
- site procedures for the import and export of power
- environmental issues and controls, including controlling oil spillages.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - skills must be demonstrated in a sugar milling workplace or an environment that accurately represents workplace conditions
- resources, equipment and materials:
  - PPE
  - appropriate steam turbine with an attached alternator and related equipment
  - communication equipment
  - workplace information recording system
- specifications:
  - operating procedures and related advice on equipment operation, including advice on safe work practices and environmental requirements
  - workplace cleaning standards and procedures.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## FBPSUG3007 Perform factory control tests

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

### Application

This unit of competency describes the skills and knowledge required to perform tests for factory control. These tests are typically complex and/or non-routine and require interpretation of results within broad guidelines.

The unit applies to individuals working in the sugar industry who are required to perform factory control tests and record data in a sugar mill.

All work must be carried out to comply with workplace procedures according to state/territory health and safety regulations, legislation and standards that apply to the workplace.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

### Pre-requisite Unit

Nil

### Unit Sector

Sugar milling (SUG)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare for testing	1.1 Identify testing requirements and methods according to workplace requirements 1.2 Select, fit and use personal protective equipment according to workplace procedures

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	1.3 Manage calibration of test equipment according to operating procedures 1.4 Prepare standard graphs according to workplace procedures 1.5 Prepare and label test chemicals and reagents according to workplace procedures 1.6 Prepare samples as required by test method 1.7 Conduct and record pre-test checks according to workplace procedures
2. Conduct test	2.1 Perform test according to test method and test schedule 2.2 Identify and report atypical test results 2.3 Record and communicate test results according to recordkeeping requirements 2.4 Follow procedures to repeat or validate results 2.5 Clean, care for and store equipment according to workplace procedures 2.6 Dispose of waste materials according to workplace procedures
3. Record test data in laboratory information system	3.1 Enter results into laboratory information systems according to workplace procedures 3.2 Correct data entry errors as required 3.3 Store and retrieve data in the laboratory information system according to workplace procedures 3.4 Produce standard and non-standard reports from laboratory information system

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Numeracy	<ul style="list-style-type: none"> <li>Calculate and confirm calibration of equipment</li> <li>Review and validate numerical test data and results</li> </ul>

Skill	Description
	<ul style="list-style-type: none"><li>• Produce graphical information</li></ul>
Navigate the world of work	<ul style="list-style-type: none"><li>• Apply workplace procedures relevant to own role</li><li>• Understand own role and associated responsibilities</li></ul>
Get the work done	<ul style="list-style-type: none"><li>• Complete tasks in logical order</li><li>• Use workplace digital system to record and store data</li><li>• Organise and filter system information to produce required reports</li></ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPSUG3007 Perform factory control tests	FDFSUG307A Perform factory control tests	Updated to meet Standards for Training Packages	Equivalent unit

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## Assessment Requirements for FBPSUG3007 Perform factory control tests

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

### Performance Evidence

An individual demonstrating competency must satisfy all of the elements and performance criteria in this unit.

There must be evidence that the individual has performed factory control tests in line with workplace contexts and demonstrated each of the following points at least once:

- identified test requirements and methods
- selected, fitted and used personal protective equipment (PPE)
- prepared test equipment, chemicals and reagents for testing
- safely prepared required samples
- managed calibration of test equipment
- conducted tests and recorded results
- communicated test results
- identified and reported non-conformances
- recorded information in the laboratory information system
- cleaned and stored equipment and treated, recycled or disposed of tested materials after testing.

### Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- laboratory information system recordkeeping requirements
- methods used to plot, analyse and present test data, including production of both standard and non-standard reports
- purpose of the test procedure, including a basic knowledge of chemistry and physics principles relating to the tests performed, and operating principles of equipment used
- specific test methods and procedures
- terminology relating to the types of tests and related methods used
- typical causes of out-of-specification results, and procedure for repeating the analysis

- safe work procedures, including hazards associated with specific test procedure requirements, working with chemicals and test equipment.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - skills must be demonstrated in a sugar milling workplace or an environment that accurately represents workplace conditions
- resources, equipment and materials:
  - PPE
  - test equipment, chemicals and reagents and related equipment
  - materials to be tested
  - sample labelling and recording system
  - laboratory recording and reporting system
- specifications:
  - operating procedures and related advice on equipment operation, including advice on safe work practices
  - test methods and procedures
  - workplace standards and procedures.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## FBPSUG3008 Analyse and convey workplace information

### Modification History

Release	Comments
Release 1	This version released with the FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

### Application

This unit of competency describes the skills and knowledge required to analyse, interpret and present information. It involves preparing and presenting information to others, including aspects of workplace training.

The unit applies to individuals working in the sugar industry who have responsibility for collecting, analysing and communicating information.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

### Pre-requisite Unit

Nil

### Unit Sector

Sugar milling (SUG)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Manage information	1.1 Identify information requirements for specific activities 1.2 Use information systems to store, retrieve and update information 1.3 Use consultative processes to collect and convey information 1.4 Review and improve methods used to collect, store, retrieve and convey information



Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
2. Collect and analyse information	2.1 Store and collect information in a format suitable for analysis and interpretation 2.2 Analyse and interpret information data and information 2.3 Ensure information collection is timely and relevant to the needs of individuals and teams
3. Present information	3.1 Communicate information effectively to individuals and groups 3.2 Ensure communication takes into account social and cultural differences 3.3 Follow appropriate meeting protocols to workplace requirements

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"> <li>Comprehend information in various sources of workplace documents</li> </ul>
Writing	<ul style="list-style-type: none"> <li>Record and present information in required format</li> </ul>
Oral communication	<ul style="list-style-type: none"> <li>Participate in conversations relevant to role by asking questions and providing explanations, as required</li> </ul>
Navigate the world of work	<ul style="list-style-type: none"> <li>Apply workplace procedures and protocols relevant to own role</li> </ul>
Interact with others	<ul style="list-style-type: none"> <li>Use communication style and language to suit the needs of others</li> </ul>
Get the work done	<ul style="list-style-type: none"> <li>Reflect on, develop and support ideas for improvement of information management</li> </ul>

## Unit Mapping Information

Code and title	Code and title	Comments	Equivalence status
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current version	previous version		
FBPSUG3008 Analyse and convey workplace information	FDFSUG308A Analyse and convey workplace information	Updated to meet Standards for Training Packages	Equivalent unit

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## Assessment Requirements for FBPSUG3008 Analyse and convey workplace information

### Modification History

Release	Comments
Release 1	This version released with the FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

### Performance Evidence

An individual demonstrating competency must satisfy all of the elements and performance criteria in this unit.

There must be evidence that the individual has analysed and conveyed workplace information in line with workplace contexts and demonstrated each of the following points at least once:

- identified and collected information from a range of sources for a specific purpose
- collected information by consulting with other people
- analysed and interpreted data and information
- selected appropriate presentation methods to convey information to others
- used an information storage and retrieval system to access, retrieve, store and update information
- identified and recommended an improvement to information management practices.

### Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- data collection and analysis techniques
- requirements for use of information recording, storage and retrieval systems
- meeting procedures used in the workplace
- methods and techniques for presenting information to individuals and groups.

### Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - skills must be demonstrated in a sugar milling workplace or an environment that accurately represents workplace conditions
- resources, equipment and materials:

- standard forms for recording workplace information
- information storage and retrieval system
- relationships (internal and/or external):
  - opportunities to interact with others using typical workplace communication processes.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## FBPTEC3001 Apply raw materials, ingredient and process knowledge to production problems

### Modification History

Release	Comments
Release 1	This version released with the FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

### Application

This unit of competency describes the skills and knowledge required to apply an understanding of ingredients and processes to solve problems that typically occur during the preparation, processing or packaging of products.

The unit applies to operators who work under broad supervision and are responsible for the efficient operation of production equipment and processes, and are required to problem-solve issues relating to non-conforming raw materials, ingredients and processes.

No occupational licensing or certification requirements apply to this unit at the time of publication. However, legislative and regulatory requirements for food processing exist, so local requirements must be checked. All work must comply with Australian food safety standards and relevant codes of practice.

### Pre-requisite Unit

Nil

### Unit Sector

Technical (TEC)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Identify and respond to non-conforming ingredients or raw	1.1 Identify raw materials and ingredients that do not conform with quality standards 1.2 Identify and report non-conformance in raw materials and

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
materials	ingredients, in line with workplace requirements 1.3 Investigate and report causes of non-conformance 1.4 Determine and implement corrective action 1.5 Take action to prevent recurrence of non-conformance 1.6 Report action in accordance with workplace reporting requirements
2. Identify and respond to non-conforming products and processes	2.1 Monitor processing parameters, stages and changes 2.2 Identify non-conformance during processing, handling and/or storage, and take corrective action 2.3 Investigate and report causes of non-conformance relating to processing, handling or storage 2.4 Determine and implement corrective actions 2.5 Take action to prevent recurrence of non-conformance 2.6 Report action in accordance with workplace reporting requirements

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"> <li>Analyse and consolidate information and data from a range of sources</li> </ul>
Numeracy	<ul style="list-style-type: none"> <li>Analyse data to check, interpret and confirm production requirements for ingredients and process parameters</li> </ul>
Get the work done	<ul style="list-style-type: none"> <li>Take responsibility for planning, sequencing and prioritising tasks and own workload for efficiency and effective outcomes</li> <li>Address problems and initiate standard procedures in response, applying problem-solving processes in determining solutions</li> </ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPTEC3001 Apply raw materials, ingredient and process knowledge to production problems	FDFTEC3003A Apply raw materials, ingredient and process knowledge to production problems	Updated to meet Standards for Training Packages  Minor changes to Performance Criteria for clarity	Equivalent unit

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## Assessment Requirements for FBPTEC3001 Apply raw materials, ingredient and process knowledge to production problems

### Modification History

Release	Comments
Release 1	This version released with the FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

### Performance Evidence

An individual demonstrating competency in this unit must satisfy all of the elements and performance criteria of this unit.

There must be evidence that the individual has effectively applied knowledge of raw materials, ingredient and process knowledge on at least one occasion, including:

- recognising quality characteristics of raw materials and ingredients in one production process
- identifying non-conforming raw materials and ingredients, and reasons why they exist in the production process
- identifying non-conformance as a result of processing and storage
- determining and undertaking corrective action for non-conformances
- completing workplace documentation and reporting non-conformances.

### Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- the composition and function of each main raw material and ingredient used, including an awareness of ingredient grades or types
- common causes of contamination and unacceptable quality in raw materials and ingredients
- methods used to confirm quality standard
- the effects of variation in raw materials and ingredients on processing stages and final product outcomes, including:
  - factors likely to cause variation
  - scope to adjust or correct for variation at each processing stage
- appropriate handling and storage requirements for raw materials, ingredients and final products, and the effects of poor storage conditions



- changes and reactions that occur through processing stages, including the signs and symptoms of poor and unacceptable processing or equipment operation
- factors affecting the shelf-life of products
- the interrelationships between processing stages and the effect of variations in processing parameters on process outcomes and on final products, including:
  - factors likely to cause variations
  - scope to adjust or correct for variations at subsequent process stages
- procedures for identifying and isolating non-conforming products
- troubleshooting information and techniques
- procedures and related documentation required to amend or to introduce a new method or procedure
- reporting requirements and responsibilities
- test methods for confirming quality characteristics.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - skills must be demonstrated in a workplace setting or an environment that accurately represents a real workplace
- resources, equipment and materials:
  - ingredients and raw materials
  - final product, and related processing equipment and stores areas
- specifications:
  - ingredient/raw materials specifications
  - troubleshooting procedures relevant to workplace processes
  - sampling and test equipment and procedures as required.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## FBPTEC3002 Implement the pest prevention program

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

### Application

This unit of competency describes the skills and knowledge required to implement an existing pest prevention program in a food processing environment.

The unit applies to individuals who typically have responsibility for inspecting food products and implementing control procedures while working under broad direction and take responsibility for their own work, with limited responsibility for the work of others.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

### Pre-requisite Unit

Nil

### Unit Sector

Technical (TEC)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Monitor the effectiveness of pest prevention measures	1.1 Interpret requirements of the pest prevention program 1.2 Identify and fit personal protective equipment according to job requirements 1.3 Identify hygiene standards to meet health and safety and workplace requirements 1.4 Conduct inspections to identify signs of pest infestation and record

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	results according to workplace procedures 1.5 Analyse results and report on signs of pest infestation according to workplace procedures
2. Implement pest elimination procedures	2.1 Select control measures suited to infestation according to pest prevention program 2.2 Implement procedures for eliminating pests according to health and safety requirements in the workplace 2.3 Maintain records according to workplace procedures 2.4 Collect, treat and dispose of waste according to workplace procedures
3. Review pest control program	3.1 Monitor pest infestation to confirm effectiveness of treatment method 3.2 Modify pest treatment method according to workplace procedures 3.3 Report changes to treatment program to appropriate personnel

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Writing	<ul style="list-style-type: none"> <li>Accurately record information and documentation relevant to pest prevention</li> </ul>
Numeracy	<ul style="list-style-type: none"> <li>Complete calculations appropriate for measuring, mixing and applying pest prevention materials according to procedures</li> </ul>
Get the work done	<ul style="list-style-type: none"> <li>Make routine decisions and implement standard pest prevention procedures</li> </ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPTEC3002 Implement the pest prevention program	FDFTEC3002A Implement the pest prevention program	Updated to meet Standards for Training Packages  Minor changes to Performance Criteria to clarify intent	Equivalent unit

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# Assessment Requirements for FBPTEC3002 Implement the pest prevention program

## Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

## Performance Evidence

An individual demonstrating competency must satisfy all of the elements and performance criteria in this unit.

There must be evidence that the individual has implemented a pest prevention program to effectively control pests in two different areas, including:

- conducting pest inspections
- identifying pest infestations and selecting suitable control measures
- implementing pest control measures in accordance with workplace procedures
- monitoring effectiveness of control measures
- assessing pest control methods and contributing to improvement of pest control
- completing records according to workplace procedures.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- basic principles of integrated pest management including:
  - identification of pest hazards
  - establishment of pest elimination methods
  - monitoring of the effectiveness of these measures
- methods used to prevent pest invasion in the workplace
- housekeeping and cleaning standards to minimise conditions that attract pests
- food safety issues relating to the use of pesticides in a food handling area
- characteristics and behaviours of common pests in own workplace
- conditions required by common pests to survive and breed
- methods and procedures used to minimise pest resistance to elimination methods
- safety data sheets (SDS) for pesticides used in the workplace

- legislation, codes of practice and procedures relating to the purchase, transport, storage, use and disposal of pesticides
- safe procedures for handling, using and storing pesticides
- the purpose, application and limitations of personal protective equipment (PPE).

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - skills must be demonstrated in a workplace setting or an environment that accurately represents a real workplace
- resources, equipment and materials:
  - access to work areas where pests are common
  - pesticide labels and SDS
  - PPE
  - pest control equipment
- specifications:
  - pest prevention program.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# FBPTEC4001 Determine handling processes for perishable food items

## Modification History

Release	Comments
Release 1	This version released with the FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

## Application

This unit of competency describes the skills and knowledge required to determine process and equipment requirements for handling and storing perishable food items, such as fresh fruit and vegetables.

The unit applies to individuals who apply the principles of modified atmosphere packing processes and who manage the handling, packing and storage processes used for perishable food items.

No occupational licensing or certification requirements apply to this unit at the time of publication. However, legislative and regulatory requirements for food processing exist, so local requirements must be checked. All work must comply with Australian food safety standards and relevant codes of practice.

## Pre-requisite Unit

Nil

## Unit Sector

Technical (TEC)

## Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Identify packing, handling and storage requirements for	1.1 Identify requirements and performance measures for packing, handling and storing perishable food products 1.2 Identify current best practice for packing, handling and storing

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
perishable food products	<p>perishable food products, and assess comparative performance of workplace practices</p> <p>1.3 Identify features and operational processes of equipment used for handling, packing and storing perishable food products</p> <p>1.4 Identify customer and legal requirements of packing, handling and storing perishable food products</p> <p>1.5 Use packing materials confirmed as suitable for perishable food products</p>
2. Specify packing, handling and storage processes	<p>2.1 Identify equipment and facilities available for packing, handling and storing perishable food products</p> <p>2.2 Conduct cost-benefit analysis to determine suitable storage equipment and facilities for operations</p> <p>2.3 Specify equipment and facilities needed for work operations</p> <p>2.4 Specify processes for packing, handling and storing perishable food products</p> <p>2.5 Specify processes in accordance with workplace environmental guidelines</p> <p>2.6 Specify labelling and documentation requirements according to workplace procedures</p> <p>2.7 Document workplace processes and operating procedures and communicate them to personnel</p>
3. Manage problems with perishable food products	<p>3.1 Identify common problems with perishable products and determine their likely causes</p> <p>3.2 Assess equipment and procedures to identify contributing factors to food problems</p> <p>3.3 Identify and address problems in accordance with workplace procedures</p> <p>3.4 Document out-of-specification processes or outcomes</p> <p>3.5 Identify and investigate opportunities for improvement</p> <p>3.6 Develop and implement proposals for improvement</p>



## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"><li>Analyse operating parameters, procedures, specifications, and other documentation from a variety of sources to determine storage and equipment requirements</li></ul>
Writing	<ul style="list-style-type: none"><li>Develop procedures for the storage of perishable food items for a specific audience using clear and detailed language</li></ul>
Numeracy	<ul style="list-style-type: none"><li>Analyse data to determine compliant outcomes</li></ul>
Get the work done	<ul style="list-style-type: none"><li>Apply systematic and analytical decision-making processes for complex and non-routine situations</li></ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPTEC4001 Determine handling processes for perishable food items	FDFTEC4001A Determine handling processes for perishable food items	Updated to meet Standards for Training Packages  Minor changes to Performance Criteria for clarity	Equivalent unit

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# Assessment Requirements for FBPTEC4001 Determine handling processes for perishable food items

## Modification History

Release	Comments
Release 1	This version released with the FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

## Performance Evidence

An individual demonstrating competency in this unit must satisfy all of the elements and performance criteria of this unit.

There must be evidence that the individual has determined effective food handling processes for at least two different types of perishable food, including:

- analysing packing, handling and storage requirements for perishable food product
- specifying processes and equipment to achieve quality outcomes that comply with relevant food standards regulations
- analysing and confirming safety aspects of food handling processes and handling and storage equipment
- analysing non-conformances, problems and determined probable cause
- proposing improvements to handling and/or storage.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- the properties of packing processes designed to protect perishable products and extend their shelf-life
- regulations, codes of practice and legislative requirements, including local and international regulations, relevant to handling and storing perishable food products
- Food Standards Code
- work health and safety (WHS) and environmental protection procedures and regulations
- workplace procedures for planning and managing the handling and storage of perishable food products
- problems that may occur while planning and managing the handling and storage of perishable food products, and action that can be taken to resolve or report the problems

- risks and hazards related to handling and storing perishable food products, and methods for controlling them
- costs of equipment and facilities for handling and storing perishable food products
- pathogens and spoilage that can occur in perishable foods and the conditions required for these to occur
- features intrinsic to food type, including pH, water activity, nutrient content, presence of microbiological compounds, respiration rate and biological structure
- the impact of extrinsic factors on perishable food products, including:
  - temperature
  - water loss
  - humidity
  - maturity (applies to maturity of fruit and vegetables when harvested)
  - handling
  - cleaning
  - sanitation
  - personal hygiene practices
  - gaseous composition of the storage atmosphere
- food spoilage indicators, including:
  - microbial contamination
  - enzymic browning
  - sensory degradation of characteristics, including flavour, aroma, colour and texture
- factors that influence selection of packing and storage processes, including:
  - suitability for use with food products to be packaged
  - compatibility with packing technology
  - costs
  - environmental features
  - consumer safety
  - tamper evidence
- characteristics of products and their behaviour when packed, handled and stored over the shelf-life of the product
- typical problems that occur, likely causes and appropriate response options.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - skills must be demonstrated in a workplace setting or an environment that accurately represents a real workplace
- resources, equipment and materials:
  - handling, packaging and storage equipment
  - perishable product, packaging components and consumables

- specifications:
  - packaging specifications
  - workplace operating procedures for packaging, handling and storage.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## FBPTEC4002 Apply principles of food packaging

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

### Application

This unit of competency describes the skills and knowledge required to oversee packaging operations in a food and beverage processing environment and to assess the nature, and likely causes, of packaging problems.

The unit applies to senior operators and managers who are responsible for overseeing packaging processes and work within known parameters. They provide and communicate solutions to a range of predictable or unpredictable problems.

All work must be carried out to comply with workplace procedures according to state/territory health and safety regulations, legislation and standards that apply to the workplace.

No occupational licensing or certification requirements apply to this unit at the time of publication. However, legislative and regulatory requirements for food processing exist so local requirements must be checked.

### Pre-requisite Unit

Nil

### Unit Sector

Technical (TEC)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Analyse characteristics of packaging suitable for	1.1 Identify and compare packaging materials suitable for a food or beverage product 1.2 Assess the interaction between the packaging and the food or

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
use with food products	beverage product 1.3 Determine environmental impact and handling features of packaging materials 1.4 Consider customer and legal requirements of packaging 1.5 Ensure packaging material characteristics meet the safety and quality needs of food or beverage being packaged
2. Evaluate packaging in a production environment and recommend improvements	2.1 Assess packaging material properties for quality and safety 2.2 Determine costs of packaging materials 2.3 Analyse non-conformances to identify probable causes 2.4 Identify and investigate opportunities for improvement to materials, processes or environmental impact 2.5 Establish or review procedures for safely operating a packaging process 2.6 Document evaluation and recommendations and seek approval for implementation

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"> <li>Critically analyse documentation from a variety of sources and consolidate information relating to packaging materials and production to assist with analysis</li> </ul>
Writing	<ul style="list-style-type: none"> <li>Prepare proposal expressing ideas and exploring issues using language that is logical, succinct and accurate</li> </ul>
Numeracy	<ul style="list-style-type: none"> <li>Perform mathematical calculations to assist with analysis of packaging materials and costs</li> </ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPTEC4002 Apply principles of food packaging	FDFTEC4008A Apply principles of food packaging	Updated to meet Standards for Training Packages  Minor changes to Performance Criteria to clarify intent	Equivalent unit

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# Assessment Requirements for FBPTEC4002 Apply principles of food packaging

## Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

## Performance Evidence

An individual demonstrating competency must satisfy all of the elements and performance criteria in this unit.

There must be evidence that the individual has analysed and evaluated at least two types of food packaging, including (for each):

- analysing packaging system components, including:
  - materials used and interaction with product
  - costs
  - processes
  - legal and customer requirements
  - environmental and handling implications
- analysing and confirming safety aspects of processes and equipment
- analysing non-conformances and packaging problems and determining probable cause
- proposing improvements to the packaging system.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- purpose of packaging and the properties of packaging materials designed to protect products and extend shelf-life, including the role of packaging in providing:
  - protection of products from contamination (microbial, pest infestation and physical damage)
  - barriers (atmospheric, moisture, flavour and light)
  - package seal ability and seal integrity
  - easy-to-open access to products
  - information to consumers about products



- market appeal
- materials and their properties
- packaging interactions with food products
- costs
- features of packaging design that preserve products
- legislative requirements relating to packaged products and food safety
- requirements of products handled in the workplace, including coated packaging products, and active/interactive packaging films
- factors that influence the selection of packaging materials
- corrective actions to prevent packaging non-conformance
- characteristics of products, and their behaviour when packaged, across the shelf-life of the product
- typical problems that occur in the packaging process, and likely causes and appropriate response options including:
  - pathogens and spoilage that occur in packaged food and the conditions required for their occurrence
  - intrinsic features of food type, including pH, water activity, nutrient content, presence of microbiological compounds, respiration rate (fresh fruit and vegetables) and biological structure
  - extrinsic factors, including processing method, temperature, water loss and humidity, maturity (applies to maturity of fruit and vegetables when harvested), handling, cleaning, sanitation and personal hygiene practices, and gaseous composition of storage atmosphere
  - food spoilage indicators, including microbial contamination, enzymic browning and sensory degradation of characteristics, such as flavour, aroma, colour and texture
  - the effect of gas composition for modified atmosphere packaging processes, including knowledge of the role of the most commonly used gases in food packaging (carbon dioxide, oxygen, nitrogen), reactions between gases, packaged products and packaging materials
- quality assurance systems to ensure that packaged products meet customer and legal requirements
- relevant sources of technical expertise and related authority levels to address packaging issues.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - skills must be demonstrated in a workplace setting or an environment that accurately represents a real workplace
- resources, equipment and materials:
  - product, packaging components and consumables
  - packaging process equipment

- specifications:
  - relevant standard operating procedures
  - packaging specifications
  - workplace information recording systems, requirements and procedures.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## FBPTEC4003 Control food contamination and spoilage

### Modification History

Release	Comments
Release 1	This version released with the FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

### Application

This unit of competency describes the skills and knowledge required to control food contamination and spoilage and to manage food safety using cleaning and sanitation programs.

The unit applies to workers who oversee food contamination control measures across a production site or facility.

No occupational licensing or certification requirements apply to this unit at the time of publication. However, legislative and regulatory requirements for food processing exist, so local requirements must be checked. All work must comply with Australian food safety standards and relevant codes of practice.

### Pre-requisite Unit

Nil

### Unit Sector

Technical (TEC)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Identify and apply legal responsibilities to produce quality, safe food	1.1 Identify legal and ethical responsibilities for producing safe food 1.2 Identify legal, workplace and customer quality standards for food products 1.3 Ensure food safety and quality practices are applied to food

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	preparation, processing and storage
2. Identify common causes of food poisoning and contamination	2.1 Identify food-borne pathogens and contamination that can occur in processed food 2.2 Trace patterns of actual or potential contamination and spoilage through processing, storage and shelf-life for a given product 2.3 Identify conditions required for contamination to occur 2.4 Analyse results of tests to detect the presence of contamination and related conditions
3. Manage control measures to eliminate or minimise the risk of contamination	3.1 Apply control measures when receiving, handling, processing, storing and transporting food to meet identified legal, ethical and workplace standards 3.2 Document control measures used to prevent food contamination and spoilage
4. Manage cleaning and sanitation regimes	4.1 Identify application methods, materials, labour and equipment requirements of common cleaners and sanitisers used in the food industry 4.2 Assess cleaning and sanitation methods, materials and regimes for their effectiveness and environmental impact 4.3 Select appropriate cleaning and sanitation methods to suit products and processes ensuring minimal risk of contamination and environmental impact 4.4 Establish inspection or test methods to confirm effectiveness of cleaning and sanitation program 4.5 Document and communicate responsibilities for cleaning and sanitation

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
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Skill	Description
Reading	<ul style="list-style-type: none"> <li>Analyse legal, ethical and workplace documentation, and consolidate information to determine controls to prevent contamination and spoilage of food</li> </ul>
Numeracy	<ul style="list-style-type: none"> <li>Perform mathematical calculations to check, interpret and confirm results of food safety tests</li> </ul>
Oral communication	<ul style="list-style-type: none"> <li>Use collaborative and inclusive techniques to convey and clarify information</li> </ul>
Get the work done	<ul style="list-style-type: none"> <li>Apply systematic and analytical decision-making processes for complex and non-routine situations</li> <li>Problem-solve issues, drawing on past experience and research</li> </ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPTEC4003 Control food contamination and spoilage	FDFTEC4003A Control food contamination and spoilage	<p>Updated to meet Standards for Training Packages</p> <p>Prerequisites removed</p> <p>Minor changes to Performance Criteria to clarify intent</p>	Equivalent unit

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# Assessment Requirements for FBPTEC4003 Control food contamination and spoilage

## Modification History

Release	Comments
Release 1	This version released with the FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

## Performance Evidence

An individual demonstrating competency in this unit must satisfy all of the elements and performance criteria of this unit.

There must be evidence that the individual has effectively controlled food contamination and spoilage, including:

- identifying contamination and/or spoilage in at least three different processed food samples
- determining likely causes of non-conformance of ingredients/raw materials
- analysing the results of tests to identify contamination and/or spoilage
- identifying and applying legal, workplace and quality standards for food products
- recognising indicators of unacceptable (or non-conforming) processing, handling and/or storage outcomes
- managing control measures used to address risks of food contamination
- managing cleaning procedures to ensure workplace standards meet food safety requirements.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- basic composition and function of each main raw material/ingredient used, such as awareness of ingredient grades or types
- common causes of contamination/unacceptable quality of raw materials/ingredients, relevant to work role
- methods used to confirm quality standard, such as accessing information (e.g. certificates of analysis and/or laboratory clearance information)
- Food Standards Code

- the effect of variation in raw materials/ingredients on processing stages and final product outcome, including factors likely to cause variation, and scope to adjust or correct for variation at each processing stage
- how time and temperature impact on the growth of microorganisms
- appropriate handling and storage requirements for raw materials/ingredients and final product, and the effect of failing to meet required storage conditions
- the changes and reactions that occur through processing stages, including the signs and symptoms of poor/unacceptable processing or equipment operation
- factors that affect the shelf-life of product
- the inter-relationships between processing stages and the effect of variation in processing parameters on process outcome and on final product, including factors likely to cause variation, and scope to adjust or correct for variation at subsequent process stages
- procedures for identifying and isolating non-conforming product
- troubleshooting information and techniques
- procedures and related documentation required to amend or introduce a new method or procedure, such as short-term procedures for amending or updating specifications and processing parameters
- reporting requirements and responsibilities
- test methods to confirm raw material/ingredient and/or final product quality characteristics where relevant.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - skills must be demonstrated in a workplace setting or an environment that accurately represents a real workplace
- resources, equipment and materials:
  - samples of contaminated and spoiled food
  - cleaning and sanitation equipment
- specifications:
  - methods to detect contamination and spoilage
  - food safety plan and related information, including operating procedures, cleaning and sanitation regimes/plans
  - cleaning and sanitation methods and procedures.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# FBPTEC4004 Apply basic process engineering principles to food processing

## Modification History

Release	Comments
Release 1	This version released with the FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

## Application

This unit of competency describes the skills and knowledge required to apply the principles of engineered systems and equipment commonly used in the food processing industry. It includes mapping production processes and measuring outputs, including yields and material variances.

The unit applies to individuals who work with systems and equipment used for heat transfer, refrigeration, pumping, evaporation and drying equipment in the food processing industry. They provide solutions to a range of predictable and sometimes unpredictable problems.

No occupational licensing or certification requirements apply to this unit at the time of publication. However, legislative and regulatory requirements for food processing exist, so local requirements must be checked. All work must comply with Australian food safety standards and relevant codes of practice.

## Pre-requisite Unit

Nil

## Unit Sector

Technical (TEC)

## Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Map a production process	1.1 Identify the scope of a production process for mapping



Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	1.2 Select and use appropriate process mapping symbols 1.3 Develop a map that identifies the relationship of each step in the process
2. Calculate yields and efficiencies of a production process	2.1 Identify inputs and outputs of a production processing system 2.2 Collect information required to monitor the performance of a production process 2.3 Calculate yields, efficiencies and material variances
3. Apply principles of fluid flow to a production process	3.1 Identify fluid properties of food that affect flow 3.2 Identify components and related equipment used in a food pumping process 3.3 Identify features of the system design that affect performance of the pumping system 3.4 Identify the effect of pumping on fluid properties 3.5 Establish the operating capacity of pumping systems used in the production process 3.6 Review or establish procedures for the safe use of pumping equipment
4. Apply principles of heat transfer to a production process	4.1 Identify types of heat transfer in a food production process 4.2 Identify methods and related equipment used to transfer heat 4.3 Recognise types of heat transfer media 4.4 Identify and contrast operating principles of cooling, chilling and freezing processes 4.5 Assess effects of heat transfer on product and material properties 4.6 Establish operating capacity of heat transfer equipment used in the production process 4.7 Review or establish procedures for the safe use of heat transfer equipment
5. Apply principles of evaporation to a production process	5.1 Identify methods and related equipment used for controlling evaporation in food processing 5.2 Analyse the effect of evaporation on product and material properties 5.3 Identify tests used to determine the concentration of a liquid

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	5.4 Establish the operating capacity of evaporation equipment used in the production process 5.5 Review or establish procedures for the safe use of evaporation equipment
6. Apply principles of drying to a production process	6.1 Identify methods and related equipment used for drying food 6.2 Assess the effect of drying on product and material properties 6.3 Identify tests used to determine moisture content of materials and products 6.4 Establish operating capacity of drying equipment used in the production process 6.5 Review and establish procedures for the safe use of drying equipment
7. Apply principles of process control to management of production processes	7.1 Locate sensors and instrumentation providing input information to the control system 7.2 Identify consequences of a system malfunction

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"> <li>Interpret and analyse system specifications and other documentation to determine requirements</li> </ul>
Writing	<ul style="list-style-type: none"> <li>Produce written and diagrammatic documents that convey information about components of food processing and engineered solutions</li> </ul>
Numeracy	<ul style="list-style-type: none"> <li>Perform mathematical calculations to interpret and record complex engineering principles for food production processes</li> </ul>
Get the work done	<ul style="list-style-type: none"> <li>Problem-solve issues as they arise</li> </ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPTEC4004 Apply basic process engineering principles to food processing	FDFTEC4004A Apply basic process engineering principles to food processing	Updated to meet Standards for Training Packages  Prerequisites removed  Minor changes to Performance Criteria for clarity	Equivalent unit

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# Assessment Requirements for FBPTEC4004 Apply basic process engineering principles to food processing

## Modification History

Release	Comments
Release 1	This version released with the FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

## Performance Evidence

An individual demonstrating competency in this unit must satisfy all of the elements and performance criteria of this unit.

There must be evidence that the individual has effectively applied basic process engineering principles in a food processing environment on at least one occasion, including:

- mapping a production process and applying process mapping protocols and symbols used in the workplace to describe a production process and its operating parameters
- applying engineering principles to a food production context, including:
  - fluid transfer
  - heat transfer
  - evaporation
  - drying
- performing calculations for engineering solutions, including performance and yield.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- the basic operating features and components of pumps commonly used and typical applications, including:
  - rotodynamic (centrifugal) pumps
  - positive displacement pumps, including reciprocating piston pumps, rotary pumps (including gear and lobe pumps), screw pumps, eccentric rotor pumps (including progressive cavity or mono pumps) and flexible vane pumps
- related components of the pumping system, including valves, taps and pipework and, where required, Australian Standards and workplace protocols for indicating materials carried by pipework

- features in the pumping system design that affect pumping efficiencies, including length of pipework, number and placement of valves and fittings, height of inlet and discharge points, internal surface and diameter of the pipe
- the following terms and how they are applied in the food processing industry:
  - pressure and pressure drop
  - velocity
  - head
- equipment components of a drying process
- the effects that the drying process has on food
- equipment components of an evaporation process
- the effects the evaporation process has on food
- heat transfer requirements and equipment used in a production process
- typical tests carried out to determine process outcomes on material/product
- operational and safety features of pumps and heat transfer equipment
- inspections required to identify signs of faulty performance and/or wear
- main types of sensors used in food processing to provide input data to control systems, and how these sensors operate.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - skills must be demonstrated in a workplace setting or an environment that accurately represents a real food processing workplace
- resources, equipment and materials:
  - production process equipment for fluid transfer, heat transfer, evaporation and drying
  - tests used to report relevant product/process information and recorded results
  - methods and related software systems for collecting data and performing calculations
- specifications:
  - manufacturers' advice and operating procedures.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## FBPTEC4005 Apply an understanding of food additives

### Modification History

Release	Comments
Release 1	This version released with the FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

### Application

This unit of competency describes the skills and knowledge required to recognise the characteristics and functions of food additives, preservatives, colours and flavours used in food products.

The unit applies to individuals who work with food additives in a food production environment. It is designed to provide an overview of food additives. It is not designed to meet the competency requirements of the person who specifies additives, preservatives, colours or flavours to be used in food. Analysis of the properties of food additives may also be done by a specialist.

No occupational licensing or certification requirements apply to this unit at the time of publication. However, legislative and regulatory requirements for food processing exist, so local requirements must be checked. All work must comply with Australian food safety standards and relevant codes of practice.

### Pre-requisite Unit

Nil

### Unit Sector

Technical (TEC)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Investigate the use of additives in food	1.1 Identify types and groupings of food additives used in food products

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	1.2 Explain functions of food additives 1.3 Research legal requirements relating to use of food additives 1.4 Explain legal and quality consequences of incorrect additive addition
2. Manage use of additives in a production process	2.1 Identify additives types and groupings used in workplace product range 2.2 Determine and apply suitable methods of application of food additives to meet production requirements 2.3 Establish or review procedures for safe storage, handling and application of food additives 2.4 Conduct handling, use and disposal of additives in accordance with safety and environmental standards

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"> <li>Critically analyse documentation regarding food additive and legal implications from a variety of sources</li> <li>Read, review and evaluate policies and procedures relating to food additives</li> </ul>
Writing	<ul style="list-style-type: none"> <li>Record outcomes of research work, and review and modify documentation using industry relevant terminology</li> </ul>
Numeracy	<ul style="list-style-type: none"> <li>Perform mathematical calculations for analysing food additive application rates</li> </ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status

FBPTEC4005 Apply an understanding of food additives	FDFTEC4005A Apply an understanding of food additives	Updated to meet Standards for Training Packages  Minor changes to Element and Performance Criteria for clarity	Equivalent unit
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## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>



## Assessment Requirements for FBPTEC4005 Apply an understanding of food additives

### Modification History

Release	Comments
Release 1	This version released with the FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

### Performance Evidence

An individual demonstrating competency in this unit must satisfy all of the elements and performance criteria of this unit.

There must be evidence that the individual has applied an understanding of food additives on at least one occasion, including:

- researching food additives and their legal and quality implications
- identifying main additives and their groupings used in at least two different processed food items
- using suitable methods to apply food additives and record their usage
- reviewing procedures for safe storage, handling and applying of additives to products to ensure product safety and quality standards are achieved.

### Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- how common food additives are grouped according to their function
- range of additives under each grouping, including:
  - texture modifying agents
  - organoleptic and nutritional modifying agents
  - shelf-life enhancing agents
  - technological aid
- range of additives used in workplace products
- coding system(s) for describing additives
- legal requirements relating to additives as established by relevant food safety legislation
- Food Standards Code
- typical quantities of additives used and related units of measurement

- preparation requirements, including forming and breaking emulsions and preparation of solutions
- systems and equipment for applying additives
- work health and safety (WHS) issues related to handling of additives
- consequences of incorrect additive addition, including quality and food safety hazards related to incorrect addition
- handling and processing conditions that affect the characteristics of products
- requirements for recording use of additives.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - skills must be demonstrated in a workplace setting or an environment that accurately represents workplace conditions
- resources, equipment and materials:
  - product range related to production process
  - additives used in the workplace product range, including preservatives, colours and/or flavours
- specifications:
  - relevant food safety legislation
  - information about current workplace requirements and procedures for additive use.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# FBPTEC4006 Apply an understanding of legal requirements of food production

## Modification History

Release	Comments
Release 1	This version released with the FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

## Application

This unit of competency describes the skills and knowledge required to ensure that food production operations comply with legal requirements that apply to food processing activities and facilities. It does not include requirements related to environmental management, work health and safety and food safety – those areas are covered by other units.

The unit applies to individuals who may not be directly responsible for designing procedures for compliance with legislation, but who should be aware of the existence of legislation, its intent and the arrangements in place to ensure compliance.

No occupational licensing or certification requirements apply to this unit at the time of publication. However, legislative and regulatory requirements for food processing exist, so local requirements must be checked. All work must comply with Australian food safety standards and relevant codes of practice.

## Pre-requisite Unit

Nil

## Unit Sector

Technical (TEC)

## Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Ensure production systems meet legislative	1.1 Analyse relevant legislation and regulations that apply to food production, packaging and labelling

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
requirements relating to products and processing	1.2 Investigate purpose and intent of legislation relevant to food production, packaging and processing 1.3 Identify roles and responsibilities of authorities responsible for administering legislation 1.4 Assess work and food safety systems to determine compliance 1.5 Review procedures to ensure compliance with legal requirements 1.6 Identify and address or report non-compliances according to workplace procedures
2. Ensure production facilities meet legislative requirements relating to food premises, equipment design and storage facilities	2.1 Analyse relevant legislation and regulations that apply to food premises, storage facilities and equipment 2.2 Investigate the purpose and intent of legislation relevant to production facilities and premises 2.3 Identify the roles and responsibilities of authorities responsible for administering legislation 2.4 Review procedures to ensure compliance with legal requirements 2.5 Review recording systems to confirm compliance with legal requirements 2.6 Review internal auditing procedures to confirm compliance 2.7 Identify and address or report non-compliances according to workplace procedures

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"> <li>Analyse compliance and legal documentation from a variety of sources to determine compliance requirements</li> </ul>
Navigate the world of work	<ul style="list-style-type: none"> <li>Ensure knowledge of legislative requirements and products is kept up-to-date in order to provide accurate information</li> <li>Modify or develop organisational policies and procedures to comply with legislative requirements and organisation goals</li> </ul>

Skill	Description
Get the work done	<ul style="list-style-type: none"><li>Contribute to continuous improvement of current work practices by applying principles of analytical and constructive thinking</li></ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPTEC4006 Apply an understanding of legal requirements of food production	FDFTEC4006A Apply an understanding of legal requirements of food production	Updated to meet Standards for Training Packages  Minor changes to Performance Criteria for clarity	Equivalent unit

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# Assessment Requirements for FBPTEC4006 Apply an understanding of legal requirements of food production

## Modification History

Release	Comments
Release 1	This version released with the FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

## Performance Evidence

An individual demonstrating competency in this unit must satisfy all of the elements and performance criteria of this unit.

There must be evidence that the individual has effectively monitored food production to ensure compliance with legislation, on at least one occasion, including:

- identifying legal requirements that apply to the packing and production of at least one processed food item
- reviewing existing work practices against procedures to ensure compliance
- identifying legal requirements for facilities and equipment used
- reviewing procedures to support ongoing compliance with legal requirements.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- the legal responsibilities of a food processing company as they relate to product content and packaging, including:
  - product content (Food Standards Code)
  - product packaging and labelling, including use of nutritional information panels (Food Standards Code)
  - work health and safety (WHS)
  - design requirements of food premises and equipment
  - food safety
  - requirements of storage facilities used for materials, ingredients and final product
  - other requirements as appropriate to the product and/or market (e.g. import and/or export legislation)
  - relevant authorities responsible for administering the legislation, and their roles

- purpose and intent of relevant legislation
- specifications and procedures to ensure the achievement of legal responsibilities related to product content and packaging
- potential hazards that could be introduced as a result of equipment design and configuration, including:
  - associated risks in handling chemicals and dangerous goods
  - inspecting plant design to identify potential hazards
  - equipment design and configuration
  - applying the hierarchy of control
- review processes and audit procedures required
- rights and responsibilities of related officers to access the production site.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - skills must be demonstrated in a workplace setting or an environment that accurately represents a real food processing workplace
- resources, equipment and materials:
  - food processing operations
- specifications:
  - workplace processes and procedures
  - relevant legislation.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# FBPTEC4007 Describe and analyse data using mathematical principles

## Modification History

Release	Comments
Release 1	This version released with the FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

## Application

This unit of competency describes the skills and knowledge required to apply mathematical principles to analyse and interpret data relating to the properties and production process for food products, using common units of measurement, formulae and mathematical skills.

The unit applies to individuals who provide and communicate solutions to a range of predictable and sometimes unpredictable problems. They take responsibility for their own work and for the quality of others' work within known parameters.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

## Pre-requisite Unit

Nil

## Unit Sector

Technical (TEC)

## Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Use common units of measurement and dimensions in calculations for physical properties of materials	1.1 Identify International System of Units (SI) and related unit symbols 1.2 Apply common formulae used to measure characteristics of food 1.3 Perform calculations involving fractions and ratios



Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
and food	
2. Apply linear algebra to analyse workplace information	2.1 Perform linear algebraic calculations to determine unknown values 2.2 Apply principles of transposing values to solve workplace problems
3. Use graphs to analyse workplace information and analyse process control	3.1 Identify data analysis and presentation requirements 3.2 Generate graphs to analyse and display workplace information 3.3 Construct a statistical process control (SPC) chart to measure attributes and variables

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"> <li>Read and interpret workplace information to determine the need for mathematical interpretation</li> </ul>
Navigate the world of work	<ul style="list-style-type: none"> <li>Follow the international conventions for units of measurement</li> </ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPTEC4007 Describe and analyse data using mathematical principles	FDFTEC4007A Describe and analyse data using mathematical principles	Updated to meet Standards for Training Packages  Prerequisites removed	Equivalent unit

		Minor changes to Performance Criteria for clarity	
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## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## Assessment Requirements for FBPTEC4007 Describe and analyse data using mathematical principles

### Modification History

Release	Comments
Release 1	This version released with the FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

### Performance Evidence

An individual demonstrating competency in this unit must satisfy all of the elements and performance criteria of this unit.

There must be evidence that the individual has accurately described and analysed food processing data and capability using mathematical principles, including each of the following:

- identifying and using the appropriate International System of Units (SI) of measurement
- applying relevant formulae to measure a specific physical characteristic of a food product or processes
- selecting calculation requirements (such as adjusting a recipe formulation) to:
  - select required formulae
  - express the problem as an equation
  - identify the known and unknown values
  - manipulate equations by transposing values as required
  - convert units into compatible formats (i.e. SI units, multiples and sub-multiples)
  - calculate percentages and ratios
  - conduct the calculation to obtain a solution
- calculating standard deviation for a specified set of data, using the correct formula
- constructing a statistical process control (SPC) chart
- identifying mean, median and mode
- identifying upper and lower control limits for a specific food processing scenario
- recording the result in the appropriate units and level of detail.

### Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- SI units of measurement and related unit symbols relevant to the food industry

- the principles of transposing values to solve workplace problems
- relevant formulae to measure physical characteristics of food products or processes
- processes for developing charts and graphs
- variety of calculations to determine unknown values, including:
  - percentages and ratios
  - standard deviation
  - conversion of units into compatible formats
  - target (mean value) for the process
  - upper and lower control limits
  - heat transfer rates
  - pressure
- commonly derived units/measurements, related formulae and their application in a food processing context, including:
  - density and specific gravity
  - viscosity
  - temperature
  - volume, weight and mass
  - vector and scalar quantities
  - velocity
  - other measures as appropriate to a production process.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- resources, equipment and materials:
  - production processing information
  - workplace documentation, including sampling plans
- specifications:
  - control chart formats
  - data collection methods and log sheets.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## FBPTEC4008 Participate in product recalls

### Modification History

Release	Comments
Release 1	This version released with the FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

### Application

This unit of competency describes the skills and knowledge required to identify and prepare for product recall situations and to initiate and participate in recall processes.

The unit applies to individuals with a primary responsibility for initiating and participating in product recall events as part of a broader team. They provide and communicate solutions to a range of predictable and sometimes unpredictable problems.

No occupational licensing or certification requirements apply to this unit at the time of publication. However, legislative and regulatory requirements for food processing exist, so local requirements must be checked. All work must comply with Australian food safety standards and relevant codes of practice.

### Pre-requisite Unit

Nil

### Unit Sector

Technical (TEC)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare for product recall situation	1.1 Identify circumstances that could result in a product recall 1.2 Implement appropriate controls to manage risks 1.3 Identify criteria used to initiate a product recall 1.4 Determine legal responsibilities and requirements of a recall

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	program
2. Participate in a product recall	2.1 Identify components of the product recall system in the workplace 2.2 Use workplace systems to trace ingredients, materials and batch information 2.3 Implement product recall procedures 2.4 Review procedures to define roles and levels of authority in the event of a product recall
3. Review processes to minimise the risk of recurrence	3.1 Investigate causes of product recalls 3.2 Review purchasing arrangements and in-house procedures to minimise the risk of recurrence 3.3 Establish and review consultative mechanisms to support continuous improvement 3.4 Communicate information on product recalls and improvement strategies to in-house personnel

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Writing	<ul style="list-style-type: none"> <li>Document outcomes and changes to procedures, and develop material to communicate with individuals affected by the recall</li> </ul>
Oral Communication	<ul style="list-style-type: none"> <li>Use collaborative and inclusive techniques, including active listening and questioning, and reading of verbal and non-verbal signals to convey and clarify information</li> </ul>
Get the work done	<ul style="list-style-type: none"> <li>Respond intuitively to problems requiring immediate resolution, drawing on past experiences to focus on the cause of a problem</li> </ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPTEC4008 Participate in product recalls	FDFTEC4011A Participate in product recalls	Updated to meet Standards for Training Packages  Prerequisites removed  Minor changes to Performance Criteria for clarity	Equivalent unit

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# Assessment Requirements for FBPTEC4008 Participate in product recalls

## Modification History

Release	Comments
Release 1	This version released with the FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

## Performance Evidence

An individual demonstrating competency in this unit must satisfy all of the elements and performance criteria of this unit.

There must be evidence that the individual has demonstrated all steps to prepare for and participate in at least one product recall, including:

- identifying criteria and circumstances for a product recall
- initiating controls to prevent product recall
- determining legal implications of a product recall
- identifying features of the workplace product recall system and procedures
- determining and examining the cause of product fault
- establishing mechanisms to improve operations and minimise the risk of occurrence.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- risks, measures and circumstances that could result in a product recall, and the control measures in place to prevent such incidents from occurring, including:
  - product failure
  - quality systems issues
  - contamination
  - packaging
- legal responsibilities and requirements of a recall program:
  - relevant provisions of food safety legislation
  - related company systems
  - criteria for determining when a recall is required
- components of the recall system required to meet company and legal requirements



- company's food safety plan and vendor assurance arrangements
- the social, financial and legal consequences of:
  - failing to initiate a recall
  - delaying a recall decision
- communication requirements and procedures:
  - appropriate communication systems
  - channels for consulting with people affected
  - communicating information on improvements
- company policy and procedures for responsive action for a given range of circumstances that could result in the need for a product recall
- procedures for developing the components of a recall system to meet company and legal requirements, including:
  - information recording systems for traceability
  - identification of personnel responsible for assessing information
  - determining appropriate action
  - procedures that define roles and levels of responsibility
- procedures for investigating causes and reviewing arrangements and procedures in the event of an incident, including:
  - reviewing responses to previous incidents
  - developing recommendations on appropriate procedures.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - skills must be demonstrated in a workplace setting or an environment that accurately represents a real workplace
- resources, equipment and materials:
  - case study materials of food product recall situations
- specifications:
  - workplace food safety program
  - information relevant to product recall, including contractual arrangements with suppliers, product specifications, process parameters and recall procedures
  - legislation relating to product recall, including relevant food safety legislation.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>



# FBPTEC4009 Identify the physical and chemical properties of materials, food and related products

## Modification History

Release	Comments
Release 1	This version released with the FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

## Application

This unit of competency describes the skills and knowledge required to identify the physical and chemical properties of materials, foods and related products within a production environment.

The unit applies to individuals who apply knowledge of physical and chemical properties of materials, food and related products, used to inform work in product development, production, testing, communication and problem-solving.

No occupational licensing or certification requirements apply to this unit at the time of publication. However, legislative and regulatory requirements for food processing exist, so local requirements must be checked. All work must comply with Australian food safety standards and relevant codes of practice.

## Pre-requisite Unit

Nil

## Unit Sector

Technical (TEC)

## Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Apply common physical phenomena in food ingredients to food	1.1 Apply an understanding of common physical phenomena to explain relevant changes that occur to ingredients and products during the production process

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
production processes	1.2 Communicate the changes to others in appropriate format for use in production process
2. Apply the principles of physical states of matter to food production	2.1 Recognise the three states of matter and the atomic changes that occur at each phase 2.2 Determine the behaviour of each state of matter and its relationship to the production process 2.3 Consider the relationship between pressure and temperature in phase transition in food production
3. Apply common food science principles to a production process	3.1 Relate the significance of pH in processing, food safety and cleaning applications 3.2 Track the reactions and properties of carbohydrates, proteins and fats through a given process 3.3 Describe the properties of common emulsions, suspensions and solutions 3.4 Identify commonly occurring chemical reactions, factors required to cause a reaction, and the effects of reactions 3.5 Review safe work procedures for processes that involve chemical reactions or the handling of chemicals
4. Communicate and interpret technical information	4.1 Use appropriate technical terms to communicate information about the properties of commonly used foods and materials 4.2 Interpret and apply test results and reporting formats to communicate information on composition, properties and reactions

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"> <li>Read and interpret safe work procedures, and consolidate information for review</li> </ul>
Numeracy	<ul style="list-style-type: none"> <li>Perform mathematical calculations to interpret test results to provide accurate information</li> </ul>

Skill	Description
Get the work done	<ul style="list-style-type: none"><li>• Apply systematic and analytical decision-making processes for complex and non-routine situations</li><li>• Investigate innovative ideas as a means to continuously improve work practices and processes through formal and analytical thinking</li></ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPTEC4009 Identify the physical and chemical properties of materials, food and related products	FDFTEC4009A Identify the physical and chemical properties of materials, food and related products	Updated to meet Standards for Training Packages  Minor changes to Performance Criteria to clarify intent	Equivalent unit

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# Assessment Requirements for FBPTEC4009 Identify the physical and chemical properties of materials, food and related products

## Modification History

Release	Comments
Release 1	This version released with the FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

## Performance Evidence

An individual demonstrating competency in this unit must satisfy all of the elements and performance criteria of this unit.

There must be evidence that the individual has effectively identified the physical and chemical properties of materials, food and related products, including:

- accurately identifying and describing the physical and chemical characteristics of three different foods and the impact that processing has on each
- using common tests and measures to identify the components of three different food items
- identifying the characteristics of acids and bases and their application in food processing
- identifying the basic molecular structures of carbohydrates, proteins and fats
- distinguishing the difference between solutions, suspensions and colloidal systems
- identifying hazards and control methods in managing hazardous materials when working with food
- communicating technical information using correct technical terms, flow charts and sketches.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- characteristics and phenomena that occur during processing; and products and processes where these phenomena are observable, including:
  - shear and strain
  - friction
  - surface tension
  - pressure
  - crystallisation
  - total solids

- heat and temperature
- relative humidity
- work and energy input
- viscosity
- particle size
- melting points, boiling points, freezing points
- dew and condensation points
- additional phenomena appropriate to the production process
- common chemical reactions that occur in food processing, including both spontaneous and controlled reactions, including:
  - oxidation
  - enzymic
  - Maillard
  - acid-based
  - the role of enzymes in generating biological reactions
- tests commonly used to measure phenomena, and related units of measurement
- transition phases applicable to a given production process
- the role of temperature and pressure in the transition process
- pH and its impact on food processes, including:
  - differences between a strong acid and a concentrated acid
  - units of measurement
  - classification of commonly used materials, ingredients and indicators according to pH
  - the typical strengths and concentration levels required for commonly used acids and bases
  - the significance of pH for processing, food safety and cleaning applications
- basic molecular structures of carbohydrates, proteins and fats
- molecular changes that occur in states of matter, and common applications, including:
  - refrigerant
  - freeze drying
- effect and compatibility of cleaning agents with equipment surface materials
- processing stages designed to affect the structure of compounds (including hydrogenation or denaturing proteins in cooking processes of oil)
- typical applications of solutions, suspensions and colloidal systems in food processing, including:
  - emulsions (oil in water/water in oil)
  - sols (solid-liquid/solid-solid)
  - gels
  - foams (gas-liquid/gas-solid)
  - differences between dispersed particles and the dispersion medium in colloids
  - factors that affect stability of colloidal systems, including the stages in a production process that can cause changes to colloid structure

- technical information resources
- how to develop explanatory sketches or flow charts to communicate how observed phenomena affect products and the process
- safety hazards and required control methods when handling chemicals and working with processes involving chemical reactions
- basic research skills required for technical information to describe food properties and reactions, including recognising and applying appropriate units of measurement and terms.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - skills must be demonstrated in a workplace setting or an environment that accurately represents a real workplace
- resources, equipment and materials:
  - production process and related equipment
  - tests used to report relevant product/process information and recorded results
- specifications:
  - manufacturers' advice and operating procedures for equipment
  - test methods.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>



## FBPTEC4010 Manage water treatment processes

### Modification History

Release	Comments
Release 1	This version released with the FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

### Application

This unit of competency describes the skills and knowledge required to manage the usage and treatment of water used in food production stages such as washing and cooling, and the usage and treatment of wastewater.

The unit applies to individuals who work in a food production site, who take responsibility for managing water treatment systems and methods, and provide and communicate solutions to a range of predictable and sometimes unpredictable problems. The unit is not designed to meet the competency requirements of the person who specifies water quality standards and/or treatment methods.

No occupational licensing or certification requirements apply to this unit at the time of publication. However, legislative and regulatory requirements for food processing exist, so local requirements must be checked. All work must comply with Australian food safety standards and relevant codes of practice.

### Pre-requisite Unit

Nil

### Unit Sector

Technical (TEC)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Manage water treatment processes	1.1 Identify uses of water within the plant and the related quality requirements for each use

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	1.2 Establish appropriate treatment methods to meet treatment requirements 1.3 Identify environmental considerations for water treatment, and select and apply treatment options to minimise environmental impact 1.4 Develop or review procedures for treating water
2. Manage wastewater treatment and disposal	2.1 Identify sources and characteristics of wastewater generated across food processing operations 2.2 Evaluate methods for treating and recycling water 2.3 Implement appropriate treatment methods 2.4 Determine legal requirements for water discharge 2.5 Identify and monitor factors affecting the cost of water discharge 2.6 Identify conditions that could result in non-compliance, and implement control methods to prevent them from occurring 2.7 Develop or review procedures for treatment of wastewater to ensure compliance with trade waste standards, and to minimise environmental impact 2.8 Research and implement opportunities to reduce the volume of trade waste and to improve treatment methods

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"> <li>Analyse documentation from a variety of sources relating to water treatment and reviews procedures</li> </ul>
Writing	<ul style="list-style-type: none"> <li>Revise procedural material for a specific audience using clear and detailed language in order to convey explicit information, requirements and recommendations</li> </ul>
Numeracy	<ul style="list-style-type: none"> <li>Perform mathematical calculations to analyse data and water treatment costs while reviewing water treatment options</li> </ul>
Navigate the world of	<ul style="list-style-type: none"> <li>Implement improvement opportunities within own level of</li> </ul>

Skill	Description
work	responsibility

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPTEC4010 Manage water treatment processes	FDFTEC4010A Manage water treatment processes	Updated to meet Standards for Training Packages  Prerequisite removed  Minor changes to Performance Criteria for clarity	Equivalent unit

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# Assessment Requirements for FBPTEC4010 Manage water treatment processes

## Modification History

Release	Comments
Release 1	This version released with the FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

## Performance Evidence

An individual demonstrating competency in this unit must satisfy all of the elements and performance criteria of this unit.

There must be evidence that the individual has effectively managed water treatment processes in food processing on at least one occasion, including:

- identifying and assessing water usage and disposal processes
- determining environmental impacts of water use, treatment and disposal
- identifying non-compliance associated with water quality
- assessing water treatment requirements and methods for water used in production
- evaluating costs associated with use, treatment and disposal of wastewater
- reviewing or developing wastewater procedures to ensure compliance with relevant standards
- researching and implementing at least one opportunity for improving wastewater management.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- terms and concepts used to describe water quality:
  - potable
  - total residual chlorine
  - free residual chlorine
  - available chlorine
- uses of water in production, including:
  - water used in cooling applications
  - washing

- flushing
- quantities and applications of water
- treatment stages in the processing system
- points where water could be more effectively conserved
- wastewater generated by the process
- principles of common methods used to treat trade waste and identifying typical applications, including:
  - primary treatment
  - secondary treatment
- requirements and methods for treatment of water used in production, including:
  - treatment methods currently in place
  - opportunities to improve resource utilisation through conserving water, changing materials and processing methods
  - treating and recycling wastewater more efficiently
- sustainable use of water, including legal, social and environmental consequences of releasing water to the environment
- characteristics that are monitored in wastewater and how these affect the cost of trade waste disposal
- rights of relevant authorities to enter the site and conduct independent sample collection and test procedures
- acceptable limits for water going to stormwater (pH range)
- conditions that could result in failure to comply with legal requirements for stormwater, and relevant control methods
- risks associated with water, including Legionella and related control measures
- characteristics of wastewater and related treatment requirements
- methods for recycling water.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - skills must be demonstrated in a workplace setting or an environment that accurately represents a real food processing workplace
- resources, equipment and materials:
  - site plans, including relevant advice on drainage system
  - monitoring equipment
- specifications:
  - workplace procedures and legislation relevant to water use and treatment.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## FBPTEC4011 Establish process capability

### Modification History

Release	Comments
Release 1	This version released with the FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

### Application

This unit of competency describes the skills and knowledge required to study process data to determine process capability using statistical process control techniques.

This unit applies to people responsible for establishing control charts and related sampling plans. It applies to individuals who take responsibility for their own work, and provide and communicate solutions to a range of predictable and sometimes unpredictable problems.

No licensing, legislative or certification requirements apply to this unit at the time of publication.

### Pre-requisite Unit

Prerequisite unit of competency for this unit is:

- FBPTEC4007 Describe and analyse data using mathematical principles.

### Unit Sector

Technical (TEC)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare to conduct a capability study	1.1 Identify the scope and purpose of the process 1.2 Determine a representative data sample 1.3 Select data collection techniques 1.4 Collect data to meet sampling requirements

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
2. Analyse data to determine process capability	2.1 Select and apply appropriate statistical analysis techniques 2.2 Identify process stability and extent of variation 2.3 Determine the target mean for the process 2.4 Calculate process control parameters 2.5 Specify related data sampling requirements 2.6 Compare and analyse data sets for process performance 2.7 Determine process capability

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"> <li>Critically analyse documentation from a variety of sources, and consolidate data for analysis</li> </ul>
Writing	<ul style="list-style-type: none"> <li>Document outcomes and results of data collection and analysis using industry relevant terminology and recognised symbols</li> </ul>
Numeracy	<ul style="list-style-type: none"> <li>Perform mathematical calculations to analyse production and process information to accurately determine performance and capability</li> </ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPTEC4011 Establish process capability	FDFPPL4005A Establish process capability	Updated to meet Standards for Training Packages  Updated prerequisites	Equivalent unit



Code and title current version	Code and title previous version	Comments	Equivalence status
		Unit code updated to reflect appropriate sector  Minor changes to Performance Criteria for clarity	

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# Assessment Requirements for FBPTEC4011 Establish process capability

## Modification History

Release	Comments
Release 1	This version released with the FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

## Performance Evidence

An individual demonstrating competency in this unit must satisfy all of the elements and performance criteria of this unit.

There must be evidence that the individual has established process capability on at least one occasion, including:

- establishing process scope, boundaries and related information on process purpose, including product or process specifications where available
- applying sampling techniques to determine nature and extent of data collection to provide a reliable indication of process performance
- selecting and applying data collection methods
- confirming that data collected is complete and complies with sampling requirements
- identifying characteristics of a normal distribution
- applying appropriate statistical techniques, including standard deviation to analyse data, and techniques to distinguish common and special causes of variation
- establishing process capability, including establishing upper and lower limits and instructions for identifying and responding to trends
- developing a related data sampling plan, including advice on sampling regimes following corrective action.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- data collection requirements and techniques for collection of actual (quantitative) and variable data, including both automated (using software) and manual techniques (carried out by operators and involving communicating requirements and designing appropriate formats for recording data)
- techniques to determine and validate a sampling plan capable of providing reliable information representative of the total population

- appropriate formats for presenting sampling plan requirements and related communication systems
- statistical process control techniques and conditions for application
- workplace conventions/formats for presenting and monitoring process capability information, including control chart including a target mean, upper and lower limits and advice on how to interpret and confirm trends, and upper and lower warning limits where required
- process knowledge to identify possible causes of special variation
- difference between a stable process and a capable process, and action required to improve process performance in each case.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - skills must be demonstrated in a workplace setting or an environment that accurately represents a real workplace
- resources, equipment and materials:
  - data collection requirements and technique
  - communication systems
- specifications:
  - statistical process control techniques and conditions.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## FBPTEC5001 Manage and evaluate new product trials

### Modification History

Release	Comments
Release 1	This version released with the FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

### Application

This unit of competency describes the skills and knowledge required to plan, monitor and evaluate new product trials.

The unit applies to individuals who work with a team of specialists to develop and engineer new products, and to manage trials in a production environment. They take personal responsibility and exercise autonomy in undertaking complex work. They analyse information and exercise judgement to complete a range of advanced, skilled activities.

No occupational licensing or certification requirements apply to this unit at the time of publication. However, legislative and regulatory requirements for food processing exist, so local requirements must be checked. All work must comply with Australian food safety standards and relevant codes of practice.

### Pre-requisite Unit

Nil

### Unit Sector

Technical (TEC)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Establish trial parameters	1.1 Define new product specifications 1.2 Identify production resource requirements 1.3 Establish project budget and timeline

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	1.4 Ensure trial is of appropriate size to provide reliable process and production information, following workplace procedures
2. Prepare for new product trial	2.1 Scale new product recipe or formula to suit trial production 2.2 Identify and confirm raw materials and ingredients, packaging components and consumables, to meet trial requirements 2.3 Identify available and suitable production equipment and safe operating procedures 2.4 Ensure availability and competency of production personnel to successfully operate the trial process 2.5 Identify environmental, food safety, and work health and safety (WHS) hazards of the trial process and determine appropriate control methods 2.6 Achieve consensus on trial documentation format and procedures 2.7 Establish trial schedule and identify, monitor and address barriers and constraints to achieving schedule
3. Develop and communicate information on the trial process	3.1 Inform personnel in related work areas and functions about trial status and progress 3.2 Advise operators directly participating in the trial of parameters, roles and responsibilities 3.3 Communicate advice on product specifications and operating procedures to the project team
4. Monitor trial progress	4.1 Monitor trial process to identify actual and potential barriers to achieving schedule 4.2 Ensure trial product is produced within specifications 4.3 Identify or investigate out-of-specification or unacceptable outcomes 4.4 Identify unusual or atypical conditions that could affect achievement of the schedule 4.5 Report and make modifications according to trial arrangements
5. Evaluate trial outcome	5.1 Review trial objectives against trial outcomes 5.2 Assess resource allocations against plan 5.3 Assess trial product against specifications 5.4 Compare production parameters and operating conditions with

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	scheduled performance 5.5 Identify and investigate significant variances 5.6 Identify and report improvement opportunities

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Writing	<ul style="list-style-type: none"> <li>Prepare documentation expressing ideas and concepts for the development, evaluation and reporting of product trials; and ensure they are constructed logically, succinctly and accurately</li> </ul>
Numeracy	<ul style="list-style-type: none"> <li>Analyse mathematical information in a range of tasks during the development, costing, scheduling and analysis of product trials</li> </ul>
Get the work done	<ul style="list-style-type: none"> <li>Gather and analyse data and seek feedback to improve plans and processes</li> <li>Address complex problems using formal analytical, lateral thinking techniques, experience and knowledge to focus in on trial design parameters</li> </ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPTEC5001 Manage and evaluate new product trials	FDFTEC5001A Manage and evaluate new product trials	Updated to meet Standards for Training Packages  Minor changes to Performance Criteria for clarity	Equivalent unit

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## Assessment Requirements for FBPTEC5001 Manage and evaluate new product trials

### Modification History

Release	Comments
Release 1	This version released with the FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

### Performance Evidence

An individual demonstrating competency in this unit must satisfy all of the elements and performance criteria of this unit.

There must be evidence that the individual has managed and evaluated trials for at least one new product, including:

- establishing parameters, conditions and requirements for product trial
- establishing, documenting and communicating the procedure for the trial to relevant personnel
- monitoring and evaluating trial outcomes against objectives and set conditions
- documenting all aspects of trial to ensure repeatability and collection of evidence.

### Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- structure and processes of developing product trials, including:
  - project parameters
  - constraints
- criteria for evaluating outcomes, including:
  - clarifying reporting requirements
  - reporting formats
- process documentation procedures and requirements to ensure that the process:
  - meets trial outcomes
  - is consistent with legislative requirements
  - is consistent with company policy objectives
- procedures for planning and monitoring a trial process and the factors to be taken into account



- proposed formulations and preferred processing methods to assess constraints and opportunities for improvement, including:
  - equipment capability
  - typical materials usage
  - rates to achieve a given production outcome
  - area experts
- systems and procedures for managing work health and safety (WHS), environmental issues and food safety through the trial process
- investigation and process improvement techniques and processes, including:
  - techniques to collect data
  - techniques to evaluate trial data
- communication processes and strategies to meet the information requirements of all stakeholders
- procedures for planning production targets and timeframes within equipment and process capability
- resources to meet trial schedule, including:
  - stock levels
  - equipment availability and capacity
  - personnel
  - storage capacity
- procedures for the development of trial schedules to manage the process
- documentation and appropriate formats, including:
  - product specifications
  - recipe formulations
  - process parameters
  - operating procedures
- monitoring procedures for trial progress to identify variances and factors that may need to be adjusted
- problem-solving processes as they relate to conducting product trials
- project planning, scheduling and monitoring procedures
- methods of collecting and evaluating trial information, including the role of an evaluation team
- procedures for reporting trial outcomes and related improvement opportunities.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - skills must be demonstrated in a workplace setting or an environment that accurately represents a real workplace
- resources, equipment and materials:
  - trial objectives and parameters

- trial products
- specifications:
  - new product specifications
  - relevant standard operating procedures.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## FBPTEC5002 Manage utilities and energy for a production process

### Modification History

Release	Comments
Release 1	This version released with the FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

### Application

This unit of competency describes the skills and knowledge required to assess utility requirements, identify suppliers, and monitor, conserve and control the cost of utility and energy supply for a production process.

The unit applies to individuals who manage utilities and energy for a production process, but who may not have the authority to make final decisions on supply. Those working in this role would analyse information and exercise judgement to complete a range of advanced, skilled activities in recommending improvements and reducing costs associated with energy efficiencies.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

### Pre-requisite Unit

Nil

### Unit Sector

Technical (TEC)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Assess utility and energy requirements	1.1 Estimate energy and utility requirements for a given production facility 1.2 Account for historical patterns of use when making estimates and

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	forecasting production volumes
2. Select suppliers of energy and utilities	2.1 Identify existing and potential suppliers of energy and utilities 2.2 Identify and consider environmental costs and benefits associated with supply in supply criteria 2.3 Establish and apply criteria for selection of suppliers 2.4 Select suppliers capable of meeting supply criteria 2.5 Review or develop contingency procedures in the event of failure of supply
3. Monitor energy and utility use against budget	3.1 Measure and record use of energy and utilities 3.2 Analyse usage patterns against performance standards and budget allocations 3.3 Identify, assess and implement cost-effective options for balancing the scheduling requirements for production with containment of energy and utility costs
4. Contribute to the more efficient use of energy and utilities	4.1 Identify energy and utility losses or sources of waste 4.2 Identify, investigate and report opportunities to improve efficient energy or utility application 4.3 Establish and review consultative mechanisms to support continuous improvement 4.4 Communicate information on energy efficiency, utility efficiency and related procedures to relevant personnel

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"> <li>Organise, evaluate and analyse ideas and information from a wide range of sources to determine energy usage requirements and efficiencies</li> </ul>
Writing	<ul style="list-style-type: none"> <li>Prepare documentation that explores complex issues for energy</li> </ul>

Skill	Description
	usage, constructed logically, succinctly and accurately
Numeracy	<ul style="list-style-type: none"><li>Analyse and synthesise highly embedded mathematical information from a broad range of resources to determine energy usage, costs and targets</li></ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPTEC5002 Manage utilities and energy for a production process	FDFTEC5002A Manage utilities and energy for a production process	Updated to meet Standards for Training Packages  Minor changes to Performance Criteria for clarity	Equivalent unit

## Links

Companion Volume Implementation Guides are found in VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# Assessment Requirements for FBPTEC5002 Manage utilities and energy for a production process

## Modification History

Release	Comments
Release 1	This version released with the FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

## Performance Evidence

An individual demonstrating competency in this unit must satisfy all of the elements and performance criteria of this unit.

There must be evidence that the individual has managed utilities and energy for at least one production process, including:

- determining utility and energy requirements and assessing current practices
- establishing supply options and conducting analysis to determine most efficient arrangements
- monitoring and evaluating utility and energy usage against targets
- identifying wastage or losses
- identifying, assessing and communicating opportunities for improving energy efficiencies.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- uses of energy and utilities in production, and units of measurement used to quantify energy and utilities
- procedures for mapping the uses of energy and utilities in production, including:
  - analysing historical data
  - sale or production forecasts to project energy and utility requirements
  - identifying patterns of usage, including volume and spread of load
- methods used to measure usage rates, including:
  - physical measurement instruments
  - measurement techniques used to track inputs to and outputs
  - units of measurement used to quantify energy and utilities
- suppliers of energy and criteria used to select them, including:

- costs and capacity
- contingency procedures in the event of failure of supplies
- elements of costs associated with supply, including tariffs, charges and peak demand and cost periods
- ability to spread load and risk by distribution to other suppliers and co-generation
- factors that affect the efficient use of energy and utilities
- consultative mechanisms to support continuous improvements
- techniques for assessing energy and utility usage rates of a given production facility to identify variances against budget or plans
- methods, equipment and operation for generating utilities for use on-site:
  - steam generation
  - other utilities appropriate to a given production facility
  - licensing and regulation requirements for boiler types
  - maintenance procedures and practices to minimise losses of steam, glycol or ammonia
  - procedures for shutting down plant and equipment
- configuration and design of the process and system to conserve and recycle energy and utilities, including:
  - steam
  - heat
  - water
- scheduling for efficient production, including:
  - existing energy and utility supply arrangements
  - dual objectives of production outcomes and efficient use of energy or utility
- energy conservation techniques, including:
  - lighting
  - air-conditioning
  - equipment standby
- procedures to develop proposals for utility improvement based on:
  - investigations
  - input from relevant technical specialists
- requirements for assessing and developing procedures to support efficient energy and utility utilisation in consideration of:
  - impacts on equipment
  - food safety
  - work health and safety
- communication strategies for changes to workplace systems and procedures to support improvements.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - skills must be demonstrated in a workplace setting or an environment that accurately represents a real workplace
- resources, equipment and materials:
  - monitoring equipment
- specifications:
  - energy and resource utilisation information, including recording systems, system requirements and procedures
  - details of contractual arrangements with suppliers
  - production scheduling requirements and systems.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>



## FBPVIT2001 Bench graft vines

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

### Application

This unit of competency describes the skills and knowledge required to select appropriate vine material, prepare cuttings, graft and undertake post-graft treatment and storage.

The unit applies to individuals in wine grape nurseries who work under general supervision, with limited autonomy and accountability for their own work.

All work must be carried out to comply with workplace procedures, according to state/territory health and safety, and food safety regulations, legislation and standards that apply to the workplace.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

### Pre-requisite Unit

Nil

### Unit Sector

Viticulture (VIT)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare to bench graft vines	1.1 Confirm job requirements 1.2 Confirm environmental guidelines and identify potential health and safety hazards and controls according to workplace procedures 1.3 Select, fit and use appropriate personal protective equipment

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	1.4 Ensure work area meets workplace requirements 1.5 Ensure materials are available to meet grafting requirements 1.6 Select and prepare cuttings for grafting 1.7 Check and set equipment to meet grafting specifications
2. Bench graft vines	2.1 Disbud cuttings according to workplace procedures 2.2 Bench graft cuttings according to workplace procedures 2.3 Treat graft union according to specifications and workplace procedures 2.4 Monitor grafting process and equipment to ensure results are maintained within specifications 2.5 Identify and address non-conformance according to workplace procedures
3. Complete bench grafting activities	3.1 Identify appropriate shutdown procedures 3.2 Pack, label and store grafted vines according to workplace procedures 3.3 Collect, treat and dispose of waste according to workplace waste procedures 3.4 Record workplace information according to workplace procedures

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"> <li>Comprehend information from a variety of workplace documents</li> </ul>
Numeracy	<ul style="list-style-type: none"> <li>Count and record numerical information related to labelling and storage of grafted vines</li> </ul>
Navigate the world of work	<ul style="list-style-type: none"> <li>Apply workplace procedures to own role and responsibilities</li> </ul>

Skill	Description
Get the work done	<ul style="list-style-type: none"><li>Respond to routine problems by referring to workplace procedures</li></ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPVIT2001 Bench graft vines	FDFWGG2001A Bench graft vines	Updated to meet Standards for Training Packages  Code changed to reflect industry sector  Minor changes to Performance Criteria for clarity	Equivalent unit

## Links

Companion Volume Implementation Guides are found in VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## Assessment Requirements for FBPVIT2001 Bench graft vines

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

### Performance Evidence

An individual demonstrating competency must satisfy all of the elements and performance criteria in this unit.

There must be evidence that the individual has prepared to bench graft vines, bench grafted vines and completed the bench grafting activities at least once, including:

- identifying health and safety hazards and controls in the workplace
- selecting, fitting and using personal protective equipment according to job requirements
- selecting and preparing appropriate vine material for grafting, including disbudding
- performing bench grafting of vines according to workplace practices
- following workplace requirements for grafting and post-grafting treatment and packing of vines
- monitoring grafted vines by identifying, rectifying or reporting out-of-specification vine grafts
- identify and address non-conformance
- cleaning up and storing equipment according to workplace requirements
- disposing of waste according to environmental policies and workplace procedures
- maintaining records according to workplace procedures.

### Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- health and safety hazards and controls in the workplace
- purpose and principles of grafting and disbudding
- criteria for successful grafting:
  - variety and clone
  - matching cambium
  - matching bevels and sizes
  - wood diameters
  - customer or workplace requirements

- importance of selection and use of rootstock and vinifera
- advantages of using clonal and registered vine improvement rootstock material
- criteria for selecting parent vines for scion material
- procedures and optimum conditions for the storage of grafting material
- preparing vine material for grafting, including:
  - removal from cold storage
  - soaking
  - heat treatment
  - disbudding
  - hydration
  - grading
- procedures for monitoring the grafting process and equipment operation to identify non-conformance
- purpose and components of grafting equipment and cleaning equipment
- packing, labelling and storing grafted vines relevant to:
  - cold room layout
  - cold room temperature variations
  - customer requirements
  - storage time requirements
  - care of vines to minimise damage by moisture and disease
- procedures and responsibility for reporting problems
- environmental issues and controls, including:
  - identifying, rectifying and reporting environmental non-conformance
  - sorting, collecting, treating, recycling or disposing of waste
- cleaning requirements and procedures for work area and equipment
- reporting and recording required information.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - a plant nursery workplace or an environment that accurately represents workplace conditions
- resources, equipment and materials:
  - appropriate personal protective equipment
  - equipment, services and corresponding information
  - products and materials
  - cleaning procedures, materials and equipment
  - documentation and recording requirements and procedures
- specifications:

- work procedures, including advice on company practices, safe work practices, quality and environmental requirements
- workplace grafting specifications
- work instructions and schedules
- legislative and local quarantine regulations and codes of practice.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## FBPVIT2002 Carry out potting operations

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

### Application

This unit of competency describes the skills and knowledge required to carry out potting operations in wine grape nurseries.

The unit applies to individuals who work in wine grape nurseries and are required to follow workplace procedures in completing tasks.

All work must be carried out to comply with workplace procedures, according to state/territory health and safety, and food safety regulations, legislation and standards that apply to the workplace.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

### Pre-requisite Unit

Nil

### Unit Sector

Viticulture (VIT)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare for potting operations	1.1 Confirm job requirements 1.2 Confirm environmental guidelines and identify potential health and safety hazards and controls according to workplace procedures 1.3 Select, fit and use personal protective equipment relevant to job

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	requirements 1.4 Ensure potting materials are available 1.5 Blend potting media to ensure consistency 1.6 Clean and treat pots and work areas to minimise risk of pest and pathogen contamination 1.7 Prepare grafted cuttings ready for potting 1.8 Check, maintain and set equipment according to workplace procedures
2. Pot propagated material	2.1 Identify and collect callused cuttings requiring potting 2.2 Place soil in pots according to job requirements 2.3 Plant cuttings according to job requirements 2.4 Label potted cuttings according to workplace procedures
3. Carry out post-potting treatments	3.1 Transfer potted cuttings to growing environment according to workplace procedures 3.2 Hydrate potted cuttings according to workplace procedures 3.3 Prepare and apply treatments according to health and safety in the workplace requirements 3.4 Collect and dispose of waste according to workplace procedures
4. Complete potting operations	4.1 Identify and report non-conformances 4.2 Clean, maintain and store equipment according to workplace procedures 4.3 Record workplace information according to workplace procedures

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"> <li>Comprehend information from a variety of workplace documents accurately</li> </ul>



Skill	Description
Numeracy	<ul style="list-style-type: none"><li>Calculate numerical information relating to volume of material requirements</li></ul>
Navigate the world of work	<ul style="list-style-type: none"><li>Apply workplace procedures to own role and responsibilities</li></ul>
Get the work done	<ul style="list-style-type: none"><li>Respond to routine problems by referring to workplace procedures</li></ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPVIT2002 Carry out potting operations	FDFWGG2002A Carry out potting operations	Updated to meet Standards for Training Packages  Code changed to reflect industry sector  Minor changes to Elements and Performance Criteria for clarity	Equivalent unit

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# Assessment Requirements for FBPVIT2002 Carry out potting operations

## Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

## Performance Evidence

An individual demonstrating competency must satisfy all of the elements and performance criteria in this unit.

There must be evidence that the individual has carried out at least two potting operations involving potting propagated material and post-potting treatment including:

- using personal protective equipment (PPE), safety data sheets (SDS) and following health and safety requirements in the workplace
- ensuring materials are available and ready for potting process
- selecting and mixing potting media and treatments according to workplace procedures
- cleaning pots and work surfaces according to workplace procedures
- preparing cuttings before potting including waxing or grading methods
- potting cuttings and labelling trays according to workplace procedures
- transferring potted cuttings to a growing environment
- maintaining hydration requirements
- disposing of waste according to workplace procedures
- completing records according to workplace procedures.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- health and safety hazards and controls in the workplace, including:
  - purpose and application of PPE
  - SDS
  - operating equipment according to workplace procedures
  - safe handling and preparation of equipment, potting media and chemicals
- process for preparing cuttings for potting, including:
  - grading

- waxing
- dipping in hormones
- hydrating
- potting process and standards of potting, including:
  - resources and materials used for the potting process
  - selecting, operating, maintaining and storing equipment according to workplace procedures
  - planting cuttings, according to workplace procedures
  - labelling trays according to workplace procedures
  - watering potted cuttings
- process of transferring and placing potted cuttings to growing environment
- report and address non-conformances according to workplace procedures
- principles of nursery hygiene, including:
  - cleaning requirements and techniques for work area and equipment
- maintenance of work area and equipment according to workplace procedures including:
  - report and address environmental non-compliance
  - waste disposal requirements and procedures
- processes for reporting, recording and maintaining workplace records.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - nursery shed or an environment that accurately represents workplace conditions
- resources, equipment and materials:
  - personal protective equipment
  - equipment, services and corresponding information
  - potting products and materials
  - cleaning procedures, materials and equipment
  - system for recording information
- specifications:
  - work procedures, including advice on company practices, safe work practices, and environmental requirements
  - work instructions and schedules.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## FBPVIT2003 Hand prune vines

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

### Application

This unit of competency describes the skills and knowledge required to hand prune vines using a variety of hand-operated or handheld equipment.

The unit applies to individuals who are required to follow workplace procedures in completing tasks associated with hand pruning of vines.

All work must be carried out to comply with workplace procedures, according to state/territory health and safety, and food safety regulations, legislation and standards that apply to the workplace.

No occupational licensing, legislative, or certification requirements are known to apply to this unit at the time of publication.

### Pre-requisite Unit

Nil

### Unit Sector

Viticulture (VIT)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare for hand pruning	1.1 Confirm job requirements 1.2 Confirm environmental guidelines and identify potential health and safety hazards and controls according to workplace procedures 1.3 Select and fit personal protective equipment relevant to the job

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	requirements 1.4 Ensure pruning equipment is ready for use according to workplace procedures
2. Hand prune vines	2.1 Start and operate pruning equipment safely and according to workplace procedures 2.2 Monitor equipment performance 2.3 Prune vines according to workplace procedures 2.4 Identify and address non-conformance according to workplace procedures 2.5 Maintain equipment in good working order according to workplace procedures
3. Complete hand pruning operations	3.1 Shut down equipment safely according to workplace procedures 3.2 Clean and store equipment 3.3 Dispose of vine cuttings according to environmental and workplace procedures 3.4 Record workplace information according to workplace procedures

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"> <li>Comprehend information from a variety of workplace documents</li> </ul>
Oral Communication	<ul style="list-style-type: none"> <li>Converse clearly to confirm job requirements and seek assistance where required</li> </ul>
Navigate the world of work	<ul style="list-style-type: none"> <li>Apply workplace procedures to own role and responsibilities</li> <li>Follow clear instructions within defined level of responsibility</li> </ul>
Get the work done	<ul style="list-style-type: none"> <li>Respond to routine problems by referring to workplace procedures</li> </ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPVIT2003 Hand prune vines	FDFWGG2003A Hand prune vines	Updated to meet Standards for Training Packages  Code changed to reflect industry sector  Minor changes to Elements and Performance Criteria for clarity	Equivalent unit

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# Assessment Requirements for FBPVIT2003 Hand prune vines

## Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

## Performance Evidence

An individual demonstrating competency must satisfy all of the elements and performance criteria in this unit.

There must be evidence that the individual has safely and effectively prepared for hand pruning, hand pruned vines and completed hand pruning operations at least once including:

- identifying health and safety hazards and controls in the workplace
- using personal protective equipment (PPE)
- following pruning equipment safety procedures
- starting and operating hand pruning equipment safely according to workplace procedures
- pruning correctly according to workplace procedures
- identify and address non-conformances
- performing shut down procedures according to workplace procedures
- following environmental procedures
- disposing of cuttings according to workplace procedures
- maintaining records according to workplace guidelines.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- basic components of and the purpose for pruning vines, including:
  - basic difference between cane and spur pruning
  - pruning requirements
  - different parts of the vine, including vine trunk and permanent framework, canes and cordons, tendrils and buds
- techniques and principles of pruning vines:
  - selecting the best possible spurs and canes
  - positioning spurs or canes
  - cleanly removing sucker shoots
  - leaving the correct quantity of spurs, rods and buds



- making cuts correctly and cleanly
- recognising and removing unwanted growth
- rolling and securing extension canes onto trellis wire
- health and safety hazards and controls in the workplace including purpose and application of PPE
- correct operating procedures for pruning equipment, including:
  - handling pruning equipment safely
  - oiling moving parts and sharpening procedures
  - safe handling of pruning equipment
  - starting up and operating automatic pruning equipment as required
  - monitoring and recognising performance problems with pruning equipment
  - cleaning and storage requirements of pruning equipment
  - using appropriate cleaning techniques
- shut down procedures
- processes for the routine preventive maintenance of equipment
- identifying, rectifying and reporting environmental non-compliance
- processes for maintaining work area:
  - environmental issues and controls
  - disposal requirements of vine cuttings
- procedures and responsibility for reporting problems and anomalies
- recording workplace information.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - a vineyard workplace or an environment that accurately represents workplace conditions
- resources, equipment and materials:
  - PPE
  - pruning equipment, services and corresponding information
  - products and materials
  - cleaning procedures, materials and equipment
  - documentation and recording requirements and procedures
- specifications:
  - work procedures, including advice on company practices, safe work practices, quality and environmental requirements
  - work instructions and schedules.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## FBPVIT2004 Pick grapes by hand

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

### Application

This unit of competency describes the skills and knowledge required to manually pick grape varieties used in winemaking.

The unit applies to individuals who carry out workplace procedures in completing tasks associated with manually picking grapes.

All work must be carried out to comply with workplace procedures, according to state/territory health and safety, and food safety regulations, legislation and standards that apply to the workplace.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

### Pre-requisite Unit

Nil

### Unit Sector

Viticulture (VIT)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare to pick grapes	1.1 Confirm job requirements 1.2 Identify potential health and safety hazards and controls according to workplace and environmental procedures 1.3 Select, fit and use personal protective equipment according to the

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	job requirements 1.4 Check equipment to confirm readiness for use according to workplace procedures
2. Pick the grapes	2.1 Ensure picking meets workplace schedules and timelines 2.2 Confirm equipment is in good working order according to workplace procedures 2.3 Select and pick grapes, minimising loss and damage according to workplace procedures 2.4 Identify and address non-conformances according to workplace procedures
3. Complete picking operations	3.1 Clean and store equipment according to workplace and environmental procedures 3.2 Conduct work to comply with workplace environmental guidelines 3.3 Record workplace information according to workplace procedures

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"> <li>Comprehend information from a variety of workplace documents</li> </ul>
Oral Communication	<ul style="list-style-type: none"> <li>Converse clearly to confirm job requirements and seek assistance where required</li> </ul>
Navigate the world of work	<ul style="list-style-type: none"> <li>Apply workplace procedures to own role and responsibilities</li> <li>Follow clear instructions within defined level of responsibility</li> </ul>
Get the work done	<ul style="list-style-type: none"> <li>Respond to routine problems by referring to workplace procedures</li> <li>Plan and organise tasks to achieve job requirements</li> </ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPVIT2004 Pick grapes by hand	FDFWGG2024A Pick grapes by hand	Updated to meet Standards for Training Packages  Code changed to reflect industry sector  Minor changes to Performance Criteria for clarity	Equivalent unit

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# Assessment Requirements for FBPVIT2004 Pick grapes by hand

## Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

## Performance Evidence

An individual demonstrating competency must satisfy all of the elements and performance criteria in this unit.

There must be evidence that the individual has manually picked grapes for winemaking on at least two separate occasions including:

- identifying and following health and safety procedures in the workplace
- selecting, fitting and using personal protective equipment
- selecting grapes suitable for picking
- recognising diseased, over-ripe or immature grapes
- cutting grape bunches according to workplace procedures
- completing picking records.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- basic components of the vine
- health and safety hazards and controls in the workplace, including:
  - manual handling
  - heat stress and sunburn
- purpose and application of personal protective clothing and equipment
- maintenance requirements and methods for equipment, including:
  - handling and sharpening procedures
  - oiling moving parts
- picking requirements according to workplace procedures, including:
  - making cuts
  - minimising damage to fruit and vine
  - recognising diseased, over-ripe or immature grapes
  - selecting grape bunches

- collecting and handling picked grapes
- cleaning and storage requirements of equipment
- procedures for maintaining workplace records
- identifying and reporting non-conformances according to workplace procedures.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - a wine vineyard or an environment that accurately represents workplace conditions
- resources, equipment and materials:
  - personal protective equipment
  - equipment, services and corresponding information
  - vines with grapes
  - cleaning procedures, materials and equipment
  - a system for recording information
- specifications:
  - work procedures, including advice on company practices, safe work practices, quality and environmental requirements
  - work instructions and schedules.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## FBPVIT2005 Maintain callusing environment

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

### Application

This unit of competency describes the skills and knowledge required to maintain a callusing environment in a vineyard.

The unit applies to individuals who are required to follow workplace procedures to complete tasks associated with callusing operations.

All work must be carried out to comply with workplace procedures, according to state/territory health and safety, and food safety regulations, legislation and standards that apply to the workplace.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

### Pre-requisite Unit

Nil

### Unit Sector

Viticulture (VIT)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare callusing environment	1.1 Identify and confirm job requirements 1.2 Select, fit and use personal protective equipment according to job requirements 1.3 Ensure materials required are available and ready



Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	1.4 Select and use equipment according to workplace procedures 1.5 Prepare, clean and sanitise work area, equipment and boxes according to workplace procedures 1.6 Prepare pre-mixed callusing media according to workplace procedures
2. Prepare cuttings for callusing	2.1 Prepare cuttings for callusing according to workplace procedures 2.2 Apply pre-callusing treatments according to workplace procedures and safety guidelines 2.3 Count, bundle and label cuttings according to workplace procedures 2.4 Place cuttings into boxes according to workplace procedures
3. Maintain cuttings in callusing room	3.1 Place cuttings into callusing environment according to workplace procedures 3.2 Maintain callusing environment according to workplace procedures 3.3 Monitor cuttings for potential health problems and report or apply treatments according to workplace procedures 3.4 Apply post-callusing treatments to maintain plant health according to workplace procedures
4. Carry out post-callusing operations	4.1 Remove callused cuttings from callusing room 4.2 Collect and dispose of waste according to workplace environmental and workplace procedures 4.3 Clean and sanitise facilities according to workplace procedures 4.4 Undertake work in accordance with workplace environmental guidelines 4.5 Record workplace information according to workplace procedures

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"> <li>Comprehend information from a variety of workplace documents</li> </ul>
Oral Communication	<ul style="list-style-type: none"> <li>Converse clearly using industry-specific language</li> </ul>
Numeracy	<ul style="list-style-type: none"> <li>Calculate numerical information relating to counting, labelling and storing</li> </ul>
Navigate the world of work	<ul style="list-style-type: none"> <li>Apply workplace procedures to own role and responsibilities</li> </ul>
Get the work done	<ul style="list-style-type: none"> <li>Respond to routine problems by referring to workplace procedures</li> </ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPVIT2005 Maintain callusing environment	FDFWGG2005A Maintain callusing environment	<p>Updated to meet Standards for Training Packages</p> <p>Code changed to reflect industry sector</p> <p>Minor changes to Elements and Performance Criteria for clarity</p>	Equivalent unit

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# Assessment Requirements for FBPVIT2005 Maintain callusing environment

## Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

## Performance Evidence

An individual demonstrating competency must satisfy all of the elements and performance criteria in this unit.

There must be evidence that the individual has prepared cuttings for callusing and maintained the callusing environment on at least two separate occasions including:

- identifying health and safety hazards and controls in the workplace
- selecting, fitting and using personal protective equipment (PPE)
- observing hygiene and housekeeping standards including cleaning and sanitising of work area, equipment and boxes
- preparing callusing media and boxes to specification
- preparing cuttings and applying pre-callusing treatment
- placing cuttings into callusing boxes
- monitoring and maintaining callusing environment to specification
- monitoring cuttings for correct callusing and reporting problems according to procedures
- applying post-callusing treatments
- removing callused cuttings
- recording appropriate information.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- health and safety hazards and controls in the workplace, including:
  - purpose of PPE
  - correct operating procedures for equipment
  - safe and effective handling of equipment
  - safe preparation and handling of chemicals
- cleaning requirements and procedures for work area and equipment
- principles of nursery hygiene

- environmental considerations and required controls
- waste disposal requirements and procedures
- correct procedures for preparing cuttings for callusing
- correct procedures for placing cuttings into boxes
- effects of variety, clone and source of cuttings on the placement and labelling of cuttings in boxes
- purpose and benefit of carrying out pre- and post-callusing treatments
- procedures used to carry out pre- and post-callusing treatments
- procedures for preparing pre-mixed callusing media
- factors in a controlled callusing environment that affect the vine cutting:
  - methods of pasteurising and treating callusing media
  - temperature
  - relative humidity
  - moisture levels of growing medium
- methods for setting, monitoring and maintaining the required temperature and relative humidity
- correct procedures for preparing callusing boxes
- quality control process in the callusing environment
- common problems that occur during callusing and how to resolve them
- procedures and responsibilities for reporting problems and anomalies
- procedures for maintaining workplace records
- procedures for selecting, operating, maintaining and storing the required equipment
- correct procedures for removing and transferring callused cuttings.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - a plant nursery workplace or an environment that accurately represents workplace conditions
- resources, equipment and materials:
  - PPE
  - equipment, services and corresponding information relevant to callusing
  - products and materials for callusing
  - cleaning procedures, materials and equipment
  - documentation, recording requirements and procedures
- specifications:
  - work procedures, including advice on company practices, safe work practices, quality and environmental requirements
  - work instructions and schedules.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## FBPVIT2006 Obtain and process rootlings

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

### Application

This unit of competency describes the skills and knowledge required to dig and process vine rootlings.

The unit applies to individuals who are required to follow workplace procedures in completing tasks associated with obtaining and processing rootlings.

All work must be carried out to comply with workplace procedures, according to state/territory health and safety, and food safety regulations, legislation and standards that apply to the workplace.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

### Pre-requisite Unit

Nil

### Unit Sector

Viticulture (VIT)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare to process rootlings	1.1 Confirm job requirements 1.2 Confirm environmental guidelines and identify potential health and safety hazards and controls according to workplace procedures 1.3 Select and fit appropriate personal protective equipment

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	1.4 Clean and sanitise facilities to minimise risk of contamination according to workplace procedures 1.5 Check, maintain and set equipment to meet job requirements
2. Obtain rootlings	2.1 Check requirements for rootlings from field nurseries, sand beds or callusing against workplace procedures 2.2 Dig rootlings from field nurseries using tractor-mounted or trailed digging machines or hand-held tools according to workplace procedures 2.3 Obtain rootlings from sand beds or callusing room according to workplace procedures
3. Process rootlings	3.1 Treat and bundle rootlings according to workplace procedures 3.2 Grade, label, pack and store bundles according to workplace procedures 3.3 Collect and dispose of waste according to waste management procedures 3.4 Identify and address non-conformances
4. Prepare rootlings for dispatch	4.1 Prepare and pack rootlings for dispatch according to job requirements 4.2 Load and check orders for dispatch according to workplace procedures 4.3 Record workplace information according to workplace procedures

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"> <li>Comprehend information from a variety of workplace documents</li> </ul>
Numeracy	<ul style="list-style-type: none"> <li>Count and record numerical information related to rootling orders and dispatch</li> </ul>
Navigate the world of	<ul style="list-style-type: none"> <li>Apply workplace procedures to own role and responsibilities</li> </ul>

Skill	Description
work	
Get the work done	<ul style="list-style-type: none"><li>Respond to routine problems by referring to workplace procedures</li></ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPVIT2006 Obtain and process rootlings	FDFWGG2006A Obtain and process rootlings	Updated to meet Standards for Training Packages  Code changed to reflect industry sector  Minor changes to Performance Criteria for clarity	Equivalent unit

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>



# Assessment Requirements for FBPVIT2006 Obtain and process rootlings

## Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

## Performance Evidence

An individual demonstrating competency must satisfy all of the elements and performance criteria in this unit.

There must be evidence that the individual has demonstrated the following for obtaining and processing rootlings from a field nursery, a sand bed and a callusing room, including:

- identifying health and safety hazards and controls in the workplace
- using personal protective equipment (PPE) according to job requirements
- handling and using treatments and disinfectants
- selecting and mixing treatments to required concentrations
- sanitising equipment and work surfaces according to workplace procedures
- set up and operate equipment according to workplace procedures
- treating, bundling, storing and labelling rootling according to workplace procedures
- preparing, packing and loading rootling for dispatch according to workplace procedures
- identifying and reporting non-conformances
- treating and disposing of waste according to workplace procedures
- maintaining records according to workplace procedures.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- health and safety hazards and controls in the workplace
- purpose and application of PPE
- safe equipment operation, storage and maintenance requirements according to workplace procedures
- principles of nursery hygiene for equipment and cleaning requirements
- methods for handling rootlings in different environments
- processes for treating rootlings:
  - hydration of all rootlings

- chemical treatment of all rootlings
- common features of vine rootlings health
- procedures for monitoring the standard of rootlings, and grading and sorting them for:
  - diameter of stem
  - appearance
  - length and number of shoots
  - strength of graft union
- package, storage requirements and procedures for rootlings ready for sale, including:
  - cold room layout and temperature variations
  - customer requirements
  - storage time requirements
- procedures for checking stock against orders, including:
  - quantity of stock
  - varieties and clones
  - quality of stock is within specifications
  - procedures and responsibilities for reporting problems and anomalies
- procedures for dispatching stock, including:
  - correct manual handling
  - correct use of mechanical transfer equipment
- procedures for collecting and disposing of waste
- environmental issues and controls
- recording workplace information.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - a plant nursery workplace or an environment that accurately represents workplace conditions
- resources, equipment and materials:
  - PPE
  - equipment, services and corresponding information
  - products and materials
  - cleaning procedures, materials and equipment
  - system for recording requirements and procedures
- specifications:
  - work procedures, including advice on company practices, safe work practices, food safety, quality and environmental requirements
  - work instructions and schedules.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## FBPVIT2007 Tend containerised nursery plants

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

### Application

This unit of competency describes the skills and knowledge required to tend containerised nursery plants.

The unit applies to individuals in wine grape nurseries who complete nursery activities such as treating plants and maintaining nursery facilities.

All work must be carried out to comply with workplace procedures according to state/territory health and safety regulations, legislation and standards that apply to the workplace.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

### Pre-requisite Unit

Nil

### Unit Sector

Viticulture (VIT)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Maintain nursery facilities	1.1 Confirm job requirements 1.2 Identify potential health and safety hazards and controls according to workplace procedures 1.3 Select, fit and use personal protective equipment according to the job requirements

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	1.4 Undertake work according to safety data sheets and workplace environmental procedures 1.5 Maintain irrigation system according to workplace procedures 1.6 Check temperature controls according to workplace procedures
2. Treat plants to maintain growth	2.1 Select and prepare materials, equipment and tools according to job requirements 2.2 Select, mix and apply chemical treatments according to workplace procedures 2.3 Apply irrigation according to workplace procedures 2.4 Recognise and report non-conformances according to workplace procedures
3. Carry out post-treatment operations	3.1 Collect and dispose of waste according to workplace procedures 3.2 Shut down, clean and store equipment according to workplace procedures 3.3 Clean and sanitise facilities according to workplace procedures 3.4 Record workplace information according to workplace procedures

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"> <li>Comprehend information from a variety of workplace documents</li> </ul>
Numeracy	<ul style="list-style-type: none"> <li>Calculate numerical information relating to preparing treatments and environmental conditions</li> </ul>
Navigate the world of work	<ul style="list-style-type: none"> <li>Apply workplace procedures and legislative responsibilities to own role</li> </ul>
Get the work done	<ul style="list-style-type: none"> <li>Respond to routine problems by referring to workplace procedures</li> <li>Plan and organise tasks to achieve job requirements</li> </ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPVIT2007 Tend containerised nursery plants	FDFWGG2007A Tend containerised nursery plants	Updated to meet Standards for Training Packages  Code changed to reflect industry sector  Minor changes to Performance Criteria for clarity	Equivalent unit

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# Assessment Requirements for FBPVIT2007 Tend containerised nursery plants

## Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

## Performance Evidence

An individual demonstrating competency must satisfy all of the elements and performance criteria in this unit.

There must be evidence that the individual has tended to containerised nursery plants by treating plants to maintain growth and maintaining nursery facilities and demonstrating the following on at least one occasion:

- using personal protective equipment (PPE)
- identifying and following safety data sheets and health and safety in the workplace procedures
- sanitising equipment and following hygiene procedures
- selecting, mixing and applying chemical treatments according to workplace procedures
- monitoring irrigation system
- irrigating and monitoring plants according to workplace procedures
- identifying and reporting non-conformances
- maintaining workplace records.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- health and safety hazards and controls in the workplace
- purpose and application of PPE
- principles and operations of irrigation systems used in tending plants in nurseries
- maintaining irrigation system:
  - fixing blockages, leaking heads and hoses
  - servicing irrigation system components
  - identifying and reporting non-compliances
- recognising underperformance of the irrigation system, including:
  - dry spots

- water dumping
- abnormal water flow
- principles and practices of tending nursery plants:
  - weed control
  - removing dead or diseased plant materials
- workplace procedures for operating equipment:
  - calibrating and adjusting equipment
  - carrying out pre-operational checks
  - applying particular settings
  - shut down procedures
- environmental issues and controls including waste disposal
- workplace procedures for reporting non-conformances
- procedures for maintaining workplace records.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - a plant nursery workplace or an environment that accurately represents workplace conditions
- resources, equipment and materials:
  - PPE
  - irrigation and maintenance equipment, services and corresponding information
  - products and materials
  - cleaning materials and equipment
  - system for recording information
- specifications:
  - workplace procedures, including advice on company practices, safe work practices, quality and environmental requirements
  - work instructions and schedules.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volume Implementation Guides are found in VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>



## FBPVIT2008 Train vines

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

### Application

This unit of competency describes the skills and knowledge required to train growing vines by hand.

The unit applies to individuals who are required to follow workplace procedures in completing tasks associated with training vines.

All work must be carried out to comply with workplace procedures, according to state/territory health and safety, and food safety regulations, legislation and standards that apply to the workplace.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

### Pre-requisite Unit

Nil

### Unit Sector

Viticulture (VIT)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare for vine training	1.1 Confirm job requirements 1.2 Confirm environmental guidelines and identify potential health and safety hazards and controls according to workplace procedures 1.3 Select and fit personal protective equipment relevant to the job

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	requirements 1.4 Ensure equipment is available and ready for safe use according to workplace procedures 1.5 Check and set equipment to meet the job requirement 1.6 Ensure materials are available to meet vine training requirements
2. Train vines	2.1 Train vines according to vine variety 2.2 Identify and address non-conformance according to workplace procedures
3. Complete training activities	3.1 Clean, maintain and store equipment according to workplace requirements 3.2 Collect, treat, dispose of waste according to workplace procedures 3.3 Record workplace information according to workplace procedures

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"> <li>Comprehend information from a variety of workplace documents</li> </ul>
Oral Communication	<ul style="list-style-type: none"> <li>Converse clearly to confirm job requirements and seek assistance where required</li> </ul>
Navigate the world of work	<ul style="list-style-type: none"> <li>Apply workplace procedures to own role and responsibilities</li> <li>Follow clear instructions within defined level of responsibility</li> </ul>
Get the work done	<ul style="list-style-type: none"> <li>Respond to routine problems by referring to workplace procedures</li> </ul>

## Unit Mapping Information

Code and title	Code and title	Comments	Equivalence status
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current version	previous version		
FBPVIT2008 Train vines	FDFWGG2008A Train vines	Updated to meet Standards for Training Packages  Code changed to reflect industry sector  Minor changes to Elements and Performance Criteria for clarity	Equivalent unit

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## Assessment Requirements for FBPVIT2008 Train vines

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

### Performance Evidence

An individual demonstrating competency must satisfy all of the elements and performance criteria in this unit.

There must be evidence that the individual has prepared for vine training, trained vines and completed vine training activities on at least one occasion including:

- identifying health and safety hazards and controls in the workplace
- using personal protective equipment (PPE) according to job requirements
- setting up and operating equipment according to workplace procedures
- training vines according to instructions, including heading height, selection of appropriate laterals, positioning of laterals, securing of laterals, removing unwanted laterals from trunk and crown
- identifying and addressing non-conformances
- cleaning up and storing equipment according to workplace procedures
- maintaining records according to workplace procedures
- disposing of waste according to environmental guidelines.

### Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- health and safety hazards and controls in the workplace
- purpose and application of PPE
- safe and effective handling of equipment
- maintenance and storage of equipment according to workplace procedures
- range of vine training techniques, features, benefits and procedures
- different parts of the grapevine, including vine trunk and permanent framework, laterals, canes and cordons, tendrils and buds, and fruit
- how to report and address non-conformances according to workplace procedures
- responsibilities for identifying and controlling environmental issues
- cleaning and storage requirements and procedures for equipment

- workplace procedures and responsibility for:
  - reporting problems
  - cleaning up
  - maintenance
  - handling and disposing of waste
  - reporting required information.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - a vineyard workplace or an environment that accurately represents workplace conditions
- resources, equipment and materials:
  - PPE
  - vine training equipment, services and corresponding information
  - range of grape vine varieties
  - cleaning procedures, materials and equipment
  - system for recording information
- specifications:
  - work procedures, including advice on company practices, safe work practices, and environmental requirements
  - work instructions and schedules.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## FBPVIT2009 Plant vines by hand

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

### Application

This unit of competency describes the skills and knowledge required to plant cuttings and rootlings by hand.

The unit applies to individuals who work under general supervision, with limited autonomy and accountability for their own work.

All work must be carried out to comply with workplace procedures according to state/territory health and safety regulations, legislation and standards that apply to the workplace.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

### Pre-requisite Unit

Nil

### Unit Sector

Viticulture (VIT)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare for hand planting	1.1 Confirm job requirements 1.2 Identify potential health and safety hazards and controls according to workplace procedures 1.3 Select and fit personal protective equipment according to the job requirements

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	1.4 Select and prepare materials, equipment and tools according to job requirements
2. Plant cuttings and rootlings	2.1 Plant vines according to workplace procedures 2.2 Maintain required spacing, row width and depth according to workplace procedures 2.3 Recognise and report non-conformances according to workplace procedures
3. Complete planting operations	3.1 Shut down equipment according to workplace procedures 3.2 Clean and store equipment according to workplace procedures 3.3 Collect, treat and dispose of waste according to workplace procedures 3.4 Record workplace information according to workplace procedures

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"> <li>Comprehend information from a variety of workplace documents</li> </ul>
Oral Communication	<ul style="list-style-type: none"> <li>Converse clearly to confirm job requirements and seek assistance where required</li> </ul>
Numeracy	<ul style="list-style-type: none"> <li>Calculate numerical information relating to planting vines</li> </ul>
Navigate the world of work	<ul style="list-style-type: none"> <li>Apply workplace procedures to own role and responsibilities</li> </ul>
Get the work done	<ul style="list-style-type: none"> <li>Respond to routine problems by referring to workplace procedures</li> </ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPVIT2009 Plant vines by hand	FDFWGG2025A Plant vines by hand	Updated to meet Standards for Training Packages  Code changed to reflect industry sector  Minor changes to Elements and Performance Criteria for clarity	Equivalent unit

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>



# Assessment Requirements for FBPVIT2009 Plant vines by hand

## Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

## Performance Evidence

An individual demonstrating competency must satisfy all of the elements and performance criteria in this unit.

There must be evidence that the individual has planted cuttings and rootlings by hand on at least one occasion and demonstrated the following:

- using personal protective equipment (PPE)
- preparing vine equipment and material ready for use
- planting vines according to workplace procedures
- recognising health and non-conformances with cuttings and rootlings
- collecting, sorting, treating, and disposing of waste according to workplace procedures
- maintaining workplace records.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- health and safety hazards and controls in the workplace
- purpose and application of PPE
- appearance and features of healthy vine planting material
- conducting work according to terrain, climate and weather conditions
- operating procedures for equipment used for planting vines by hand including set up and shut down requirements
- environmental issues and controls
- procedures and responsibility for reporting non-conformances
- soil characteristics as they apply to vine establishment:
  - structure
  - compaction
  - condition
  - present moisture
  - present nutrients and toxic factors

- parts of the vine
- planting requirements and procedures:
  - spacing
  - row width
  - depth
  - soil preparation
  - rootling preparation
  - soil compaction
  - planting procedure
  - rootling health
- correct disposal of waste material
- cleaning and storage of equipment
- recording workplace information.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - a wine grape growing workplace or an environment that accurately represents workplace conditions
- resources, equipment and materials:
  - PPE
  - equipment, services and corresponding information
  - cuttings and rootlings ready for planting
  - cleaning materials and equipment
  - system for recording information
- specifications:
  - work procedures, including advice on company practices, safe work practices, quality and environmental requirements.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## FBPVIT2010 Take and process vine cuttings

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

### Application

This unit of competency describes the skills and knowledge required to take and process vine cuttings using a variety of hand-operated equipment.

The unit applies to individuals who are required to follow workplace procedures in completing tasks associated with taking and processing vine cuttings.

All work must be carried out to comply with workplace procedures according to state/territory health and safety regulations, legislation and standards that apply to the workplace.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

### Pre-requisite Unit

Nil

### Unit Sector

Viticulture (VIT)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Take vine cuttings	1.1 Confirm job requirements 1.2 Identify health and safety hazards and environmental controls according to workplace procedures and regulations 1.3 Select, fit and use personal protective equipment according to job requirements

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	1.4 Select and prepare materials and equipment according to workplace procedures 1.5 Select and take vine cuttings according to job requirements 1.6 Identify and address non-conformances according to workplace procedures
2. Complete vine cutting operations	2.1 Collect and grade vine cuttings according to job requirements 2.2 Clean and store equipment according to workplace procedures 2.3 Collect and dispose of waste according to environmental and workplace procedures
3. Prepare to process cuttings	3.1 Clean and sanitise facilities to minimise risk of contamination 3.2 Ensure materials are ready to meet requirements 3.3 Select and prepare materials and equipment according to workplace procedures
4. Process cuttings	4.1 Treat and bundle cuttings according to workplace procedures 4.2 Label, pack and store bundles according to workplace procedures 4.3 Collect and dispose of waste according to environmental and workplace procedures 4.4 Recognise and address and non-conformances according to workplace procedures 4.5 Record workplace information according to workplace procedures

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"> <li>Comprehend information from a variety of workplace documents</li> </ul>
Writing	<ul style="list-style-type: none"> <li>Produce workplace documents using industry-based vocabulary, grammar and conventions</li> </ul>

Skill	Description
Numeracy	<ul style="list-style-type: none"><li>Calculate numerical information relating to estimating materials, labelling and storing</li></ul>
Navigate the world of work	<ul style="list-style-type: none"><li>Follow clear instructions within defined level of responsibility</li><li>Apply workplace procedures to own role and responsibilities</li></ul>
Get the work done	<ul style="list-style-type: none"><li>Respond to routine problems by referring to workplace procedures</li></ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPVIT2010 Take and process vine cuttings	FDFWGG2022A Take and process vine cuttings	Updated to meet Standards for Training Packages  Code changed to reflect industry sector  Minor changes to Performance Criteria for clarity	Equivalent unit

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# Assessment Requirements for FBPVIT2010 Take and process vine cuttings

## Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

## Performance Evidence

An individual demonstrating competency must satisfy all of the elements and performance criteria in this unit.

There must be evidence that the individual has effectively taken and processed vine cuttings using hand-operated equipment on at least two separate occasions including:

- following health and safety procedures in the workplace
- selecting, fitting and using personal protective equipment (PPE)
- selecting cuttings and cutting according to workplace procedures
- using a variety of hand-operated or handheld cutting equipment
- treating, bundling, and labelling cuttings according to workplace procedures
- identifying and addressing non-conformances in cutting propagation of grape vines
- disposing of waste according to workplace procedures
- maintaining records according to workplace procedures.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- health and safety hazards and environmental controls in the workplace
- purpose and application of PPE
- selection, setup and maintenance of vine cutting equipment
- vine components:
  - vine trunk and permanent framework
  - canes and cordons
  - tendrils and buds
- procedures for selecting and taking vine cuttings:
  - correct length and diameter
  - correct number of buds on the cutting

- degree of straightness
- cuts made correctly and cleanly
- top cut at 45° angle or bottom bud flat, 1-2 cm from nearest bud
- number of buds left on the vine
- treating cuttings procedures:
  - hydration of all cuttings
  - removing unwanted plant material
  - mixing treatments
- collecting and storing vine cuttings procedures:
  - numbers per bundle
  - all lying the same way in the bundle (basal and distal ends)
  - secure tying and labelling of bundles
  - maintaining hydration of cuttings
- cutting propagation techniques for grape vines:
  - identification of vine cuttings
  - cutting collection and storage requirements, including hydration
- features of healthy and unhealthy vine cuttings used to grade cuttings
- packing and storing cuttings:
  - cold room layout and temperature variations
  - storage time requirements
- cleaning requirements and environmental procedures for work area and equipment
- identifying and addressing non-compliances
- maintaining workplace records
- legislation, regulations and codes of practice related to handling of vine cuttings.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - a vineyard workplace or an environment that accurately represents workplace conditions
- resources, equipment and materials:
  - PPE
  - equipment, services and corresponding information
  - cuttings and treatments
  - cleaning procedures, materials and equipment
  - system for recording information
- specifications:
  - work procedures, including advice on company practices, safe work practices and environmental requirements
  - legislative and local quarantine regulations and codes of practice

- work instructions and schedules.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>



## FBPVIT2011 Operate vineyard equipment

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

### Application

This unit of competency describes the skills and knowledge required to operate a range of general vineyard equipment that does not require specialised calibration.

The unit applies to individuals who are required to follow workplace procedures to operate general vineyard equipment.

All work must be carried out to comply with workplace procedures, according to state/territory health and safety, and food safety regulations, legislation and standards that apply to the workplace.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

### Pre-requisite Unit

Nil

### Unit Sector

Viticulture (VIT)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare equipment for operation	1.1 Confirm job requirements 1.2 Confirm environmental guidelines and identify potential health and safety hazards and controls according to workplace procedures 1.3 Select, fit and use personal protective equipment relevant to the

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	job requirements 1.4 Check, maintain and set equipment for use according to workplace procedures
2. Operate equipment	2.1 Start up and operate equipment according to workplace procedures 2.2 Adjust operation of equipment to meet yard safety requirements, weather conditions and workplace terrain 2.3 Monitor equipment performance to confirm performance is maintained according to workplace procedures 2.4 Identify and address non-conformance of equipment according to workplace procedures
3. Complete operation of equipment	3.1 Shut down equipment according to workplace procedures 3.2 Clean and store equipment according to workplace procedures 3.3 Sort, collect, treat and dispose of waste generated by the work activities according to workplace procedures 3.4 Record workplace information according to workplace procedures

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"> <li>Comprehend information from a variety of workplace documents</li> </ul>
Oral Communication	<ul style="list-style-type: none"> <li>Converse clearly with workplace personnel to ensure safety of self and others when operating vineyard equipment</li> </ul>
Navigate the world of work	<ul style="list-style-type: none"> <li>Apply workplace procedures to own role and responsibilities</li> </ul>
Get the work done	<ul style="list-style-type: none"> <li>Respond to routine problems by referring to workplace procedures</li> </ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPVIT2011 Operate vineyard equipment	FDFWGG2018A Operate vineyard equipment	Updated to meet Standards for Training Packages  Code changed to reflect industry sector  Minor changes to Performance Criteria for clarity	Equivalent unit

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# Assessment Requirements for FBPVIT2011 Operate vineyard equipment

## Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

## Performance Evidence

An individual demonstrating competency must satisfy all of the elements and performance criteria in this unit.

There must be evidence that the individual has safely and effectively operated at least three different types of vineyard equipment and for each type has demonstrated the following:

- identifying health and safety hazards and controls in the workplace
- using personal protective equipment (PPE)
- selecting and confirming availability of equipment, and preparing according to workplace procedures
- setting up, starting up, operating and shutting down equipment according to workplace procedures
- adjusting equipment operation to meet workplace conditions including yard, weather and terrain
- identifying and addressing non-conformances
- sorting, collecting, treating and disposing of waste according to environmental and workplace procedures
- maintaining records according to workplace procedures.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- health and safety hazards and controls in all operating conditions
- selecting, fitting and using appropriate PPE
- basic equipment used and operated in a vineyard environment
- purpose, features, components and operational safety requirements of equipment:
  - all-terrain vehicles
  - tractor-mounted forklift
  - front-end loader

- towed equipment (e.g. gondola)
- three-point linkage equipment (e.g. discs)
- power take-off driven equipment (e.g. slasher)
- equipment with hydraulics (e.g. tipping trailer)
- confirming equipment status and condition, including:
  - fuel
  - water
  - oil (e.g. engine, gearbox and hydraulics)
  - belts
  - air intake
  - tyre pressure
  - metal fatigue or wear and tear
- following equipment shut down procedures
- identify and address non-conformances
- required weather conditions for equipment operation
- types of workplace terrain
- significance and methods of monitoring equipment performance
- procedures and responsibility for reporting problems and maintaining workplace records
- environmental issues and controls
- identifying, rectifying and reporting environmental non-compliance
- cleaning and storing according to workplace procedures
- collecting, treating and recycling or disposing of waste
- routine maintenance procedures for equipment
- recording requirements and procedures
- legislation and quarantine codes of practice related to vineyard operations.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - a vineyard workplace or simulated environment that accurately reflects performance in a real workplace setting
- resources, equipment and materials:
  - appropriate PPE
  - vineyard equipment and associated attachments
  - cleaning materials and equipment
- specifications:
  - work procedures, including advice on company practices, safe work practices and environmental requirements
  - legislative and local quarantine regulations and codes of practice
  - system for recording requirements and procedures

- work instructions and schedules.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## FBPVIT2012 Identify and treat nursery plant disorders

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0

### Application

This unit of competency describes the skills and knowledge required to recognise common nursery plant disorders, monitor and record the severity of the disorder, and apply a range of treatments.

The unit applies to individuals who are required to follow workplace procedures in completing tasks to identify and treat nursery plant disorders.

All work must be carried out to comply with workplace procedures according to state/territory health and safety regulations, legislation and standards that apply to the workplace.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

### Pre-requisite Unit

Nil

### Unit Sector

Viticulture (VIT)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Identify and prepare to treat plant disorders	1.1 Confirm job requirements 1.2 Confirm environmental guidelines and identify potential health and safety hazards and controls according to workplace procedures 1.3 Select, fit and use appropriate personal protective equipment according to workplace procedures 1.4 Collect and check equipment for serviceability according to workplace procedures 1.5 Identify, record and report details of disorder according to workplace procedures 1.6 Select treatment method according to workplace procedures 1.7 Ensure materials are ready to meet job requirements
2. Treat disorders	2.1 Undertake work in accordance with relevant safety data sheets and workplace environmental guidelines 2.2 Prepare treatments according to workplace procedures 2.3 Prepare equipment according to workplace procedures 2.4 Apply treatments according to workplace procedures 2.5 Identify and address non-conformances
3. Carry out post-treatment operations	3.1 Collect and dispose of waste according to workplace procedures and environmental regulations 3.2 Shut down, clean and store equipment according to workplace procedures 3.3 Record workplace information according to workplace procedures

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
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Skill	Description
Reading	<ul style="list-style-type: none"> <li>Comprehend information from a variety of workplace documents accurately</li> </ul>
Oral Communication	<ul style="list-style-type: none"> <li>Converse clearly using industry-specific language</li> </ul>
Numeracy	<ul style="list-style-type: none"> <li>Calculate numerical information relating to estimating, measuring and mixing materials for vine treatment</li> </ul>
Navigate the world of work	<ul style="list-style-type: none"> <li>Apply workplace procedures to own role and responsibilities</li> <li>Follow clear instructions within defined level of responsibility</li> </ul>
Get the work done	<ul style="list-style-type: none"> <li>Respond to routine problems using step-by-step instructions and procedures</li> </ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPVIT2012 Identify and treat nursery plant disorders	FDFWGG2012A Identify and treat nursery plant disorders	<p>Updated to meet Standards for Training Packages</p> <p>Code changed to reflect industry sector</p> <p>Minor changes to Performance Criteria for clarity</p>	Equivalent unit

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# Assessment Requirements for FBPVIT2012 Identify and treat nursery plant disorders

## Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0

## Performance Evidence

An individual demonstrating competency must satisfy all of the elements and performance criteria in this unit.

There must be evidence that the individual has identified and treated at least two different plant disorders including:

- complying with health and safety and environmental policies and procedures
- selected and fitted personal protective equipment (PPE)
- reading and interpreting safety data sheets (SDS)
- following other specified health and safety procedures, including safe handling of chemicals
- identifying common plant disorders and implementing corrective actions
- selecting, mixing and applying treatments according to instructions
- taking corrective action in response to non-conformances
- conducting work according to environmental and health and safety requirements
- disposing of waste according to environmental policies and workplace procedures
- recording treatments according to workplace requirements.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- health and safety hazards and controls in the workplace
- purpose and application of PPE
- safe preparation and handling of chemicals
- correct workplace procedures for equipment used to treat disorders:
  - safe and effective handling of equipment
  - preparing equipment
  - calibrating equipment
  - cleaning equipment

- applying particular settings
- health and safety in the workplace and environmental regulations affecting the use of chemicals for treating disorders:
  - environmental issues and controls
  - using appropriate cleaning techniques
  - identifying, rectifying and reporting environmental non-compliance
- characteristics of common vine disorders:
  - common plant disorders occurring in vine nurseries
  - life cycles of common vine disorders
- different types of control measures and their uses, including integrated pest management
- implementing appropriate control measures
- procedures for preparing treatments:
  - setting up application equipment
  - measuring treatment rates
  - mixing treatments to ensure homogenous mix
  - interpreting treatment label information
  - interpreting SDS information
- procedures and responsibilities for reporting problems and anomalies
- reporting and recording requirements and procedures
- principles of nursery hygiene
- cleaning requirements and procedures for work area and equipment
- waste disposal requirements and procedures.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - a plant nursery workplace or an environment that accurately represents workplace conditions
- resources, equipment and materials:
  - PPE used for treating vine disorders
  - equipment, services and corresponding information
  - products and materials to be treated
  - equipment cleaning procedures and materials
  - documentation and recording requirements and procedures
- specifications:
  - work procedures, including advice on company practices, safe work practices, quality and environmental requirements
  - legislative and local quarantine regulations and codes of practice
  - work instructions and schedules.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## **Links**

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# FBPVIT2013 Recognise disorders and identify pests and diseases

## Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

## Application

This unit of competency describes the skills and knowledge required to recognise the symptoms and identify the cause of pests, diseases and plant disorders.

The unit applies to individuals who carry out workplace procedures in completing tasks associated with pest and disease control.

All work must be carried out to comply with workplace procedures according to state/territory health and safety regulations, legislation and standards that apply to the workplace.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

## Pre-requisite Unit

Nil

## Unit Sector

Viticulture (VIT)

## Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Monitor vine health	1.1 Confirm job requirements 1.2 Identify health and safety hazards and controls according to workplace procedures 1.3 Select, fit and use personal protective equipment according to job requirements

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	1.4 Monitor vineyard for pests, diseases and vine disorders according to workplace procedures 1.5 Recognise vine disorder symptoms and identify causes including pests and diseases according to workplace procedures
2. Assess and report symptoms of vine pests, diseases and disorders	2.1 Assess severity and determine extent of pests, diseases or vine disorders according to workplace procedures and industry specifications 2.2 Identify vineyard location where pests, diseases or vine disorders are present 2.3 Record and report details of pests, diseases or vine disorders according to workplace procedures

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"> <li>Comprehend information from a variety of workplace documents</li> </ul>
Writing	<ul style="list-style-type: none"> <li>Produce workplace documents using industry-based vocabulary, grammar and conventions</li> </ul>
Numeracy	<ul style="list-style-type: none"> <li>Calculate numerical information relating to estimating degree of infestation and disorders</li> </ul>
Navigate the world of work	<ul style="list-style-type: none"> <li>Apply workplace procedures and legislative responsibilities to own role</li> </ul>
Get the work done	<ul style="list-style-type: none"> <li>Respond to routine problems by referring to workplace procedures</li> <li>Plan and organise tasks to achieve job requirements</li> </ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
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FBPVIT2013 Recognise disorders and identify pests and diseases	FDFWGG2017A Recognise disorders and identify pests and diseases	Updated to meet Standards for Training Packages  Code changed to reflect industry sector  Minor changes to Elements and Performance Criteria for clarity	Equivalent unit
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## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# Assessment Requirements for FBPVIT2013 Recognise disorders and identify pests and diseases

## Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

## Performance Evidence

An individual demonstrating competency must satisfy all of the elements and performance criteria in this unit.

There must be evidence that the individual has identified, assessed and reported symptoms of vine pests, diseases and disorders for at least two different vines including:

- selecting, fitting and using personal protective equipment (PPE)
- recognising symptoms of vine pests, diseases and disorders
- determining the cause of symptoms
- assessing the location and extent of spread
- determining the severity of pests, diseases and vine disorders
- recording and reporting findings according to workplace procedures.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- principles of workplace's integrated pest management program and importance of identifying vine disorders, pests and diseases
- responsibilities for health and safety in the workplace including:
  - health and safety hazards associated with treatment of disorders, pests and diseases
  - methods for controlling risks associated with health and safety hazards
- responsibilities for identifying and controlling environmental issues
- PPE
- vine physiology, as it applies to:
  - water intake
  - nutrient uptake
  - photosynthesis
  - transpiration, respiration and translocation



- parts of the root, trunk, shoot and fruit systems of the grapevine and their role in how the vine works:
  - buds, nodes and tendrils
  - cambium, epidermis, phloem and xylem
  - leaf blade, bract and petiole
  - bunch, berries and flowers
- annual growth stages of grapevines:
  - budburst
  - flowering
  - veraison
  - maturity
- vine types, characteristics and uses including:
  - family, genus and species names and categories
  - *Vitis vinifera* and commercial varieties
  - native species and hybrids (e.g. *V. labrusca*)
  - root stocks and scion stock
- key grape varieties and distinguishing features, including berry and bunch characteristics:
  - frost and disease resistance
  - flavour and style
- signs and symptoms of common vine disorders, pests and diseases including:
  - light brown apple moth
  - powdery mildew
  - downy mildew
  - botrytis
  - mites
  - fruit fly
- reporting responsibilities and procedures.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - a vineyard workplace or an environment that accurately represents workplace conditions
- resources, equipment and materials:
  - equipment and materials for monitoring and controlling pests, diseases and disorders
  - system for recording and reporting information
- specifications:
  - workplace procedures for reporting pests, diseases and disorders
  - legislative and local quarantine regulations and codes of practice.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volume Implementation Guides are found in VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## FBPVIT2014 Perform pest control activities

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

### Application

This unit of competency describes the skills and knowledge required to carry out pest control activities for weeds, vertebrate and invertebrate pests in wine operations.

The unit applies to individuals who work under general supervision, with limited autonomy and accountability for their own work.

All work must be carried out to comply with workplace procedures according to state/territory health and safety regulations, legislation and standards that apply to the workplace.

Use of chemical treatments may be controlled in some regions and advice should be sought from regulators in the relevant state or territory. Individuals performing shooting activities will require a gun licence under state and territory legislation.

### Pre-requisite Unit

Nil

### Unit Sector

Viticulture (VIT)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare for pest control activities	1.1 Confirm work instructions, relevant regulations and identify potential health and safety hazards and controls according to workplace procedures 1.2 Select and fit personal protective equipment according to job requirements

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	1.3 Check and calibrate equipment according to job requirements
2. Identify pests and treatments	2.1 Identify weeds, vertebrates and invertebrates pests found in the wine operations environment 2.2 Record and report details of pests according to workplace procedures 2.3 Select treatment method according to workplace procedures 2.4 Ensure materials are ready to meet job requirements
3. Carry out pest control activities	3.1 Undertake work in accordance with relevant safety data sheets and workplace environmental guidelines 3.2 Prepare control treatments safely according to workplace procedures 3.3 Prepare equipment according to workplace procedures 3.4 Apply control treatments according to workplace procedures 3.5 Monitor treatment and equipment to ensure operation is within specification 3.6 Identify and address non-conformances according to workplace procedures
4. Complete pest control activities	4.1 Shut down, clean and store equipment according to workplace procedures 4.2 Collect and store unused treatment material according to workplace procedures 4.3 Collect and dispose of waste according to workplace environmental procedures and regulations 4.4 Record workplace information according to workplace procedures

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
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Skill	Description
Reading	<ul style="list-style-type: none"> <li>Interpret information from a variety of workplace documents</li> </ul>
Writing	<ul style="list-style-type: none"> <li>Document pest control activities in required format</li> </ul>
Numeracy	<ul style="list-style-type: none"> <li>Calculate numerical information relating to estimating, measuring and mixing materials</li> </ul>
Navigate the world of work	<ul style="list-style-type: none"> <li>Follow clear instructions within defined level of responsibility</li> <li>Apply workplace procedures</li> </ul>
Get the work done	<ul style="list-style-type: none"> <li>Respond to routine problems by referring to workplace procedures</li> </ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPVIT2014 Perform pest control activities	FDFWGG2019A Perform vertebrate pest control activities	<p>Updated to meet Standards for Training Packages</p> <p>Code changed to reflect industry sector</p> <p>Title changed as unit covers broad range of pests</p> <p>Minor changes to Performance Criteria for clarity</p>	No equivalent unit

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# Assessment Requirements for FBPVIT2014 Perform pest control activities

## Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

## Performance Evidence

An individual demonstrating competency must satisfy all of the elements and performance criteria in this unit.

There must be evidence that the individual has identified pests and treatments in a wine operations environment and performed at least two types of pest control including:

- complying with health and safety and environmental procedures, including:
  - using personal protective equipment (PPE)
  - reading and interpreting safety data sheets (SDS)
  - safe handling of chemicals
- identifying common weeds, vertebrate and invertebrate pests
- selecting and implementing control activities
- selecting, preparing and applying treatments according to workplace procedures
- recording treatments according to workplace procedures.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- health and safety hazards and controls in the workplace:
  - purpose and application of PPE
  - safe and effective handling of equipment
  - safe preparation and handling of chemicals
- operating procedures for pest control equipment:
  - preparing, calibrating and cleaning equipment
- environmental regulations and workplace procedures for using chemicals for pest control:
  - environmental issues and controls
  - cleaning techniques
  - identifying and reporting environmental non-conformance

- characteristics of common pests found in wine operations environments:
  - weeds
  - vertebrate
  - invertebrate
  - common environments
  - location by regions
  - life cycle of pests
- common control treatments:
  - weeding
  - ripping
  - gassing
  - baiting
  - poisoning
  - shooting
  - bird-scaring activities
  - traps
  - guards
  - fencing
- procedures for preparing treatments:
  - setting up application equipment
  - interpreting treatment label information
  - interpreting SDS information
  - measuring and mixing treatments
- equipment used for pest control:
  - weed treatment applicators
  - rippers
  - fencing gear
  - scaring devices
  - baits
  - guns
  - traps
- procedures for reporting non-conformances
- legislation, regulations and codes of practice related to wine operations pest control methods.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:

- a vineyard workplace or an environment that accurately represents workplace conditions
- resources, equipment and materials:
  - PPE required for pest control activities
  - equipment, services and corresponding information
  - weeds, vertebrate and invertebrate pests to be treated
  - equipment cleaning and storage procedures and materials
  - system for recording information
- specifications:
  - work procedures, including advice on company practices, safe work practices, regulations and environmental requirements
  - legislative and local pest control regulations and codes of practice.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volume Implementation Guides are found in VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>



## FBPVIT2015 Carry out basic canopy maintenance

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

### Application

This unit of competency describes the skills and knowledge required to carry out basic wine grapevine canopy maintenance using manual and motorised equipment.

The unit applies to individuals who follow workplace procedures in completing tasks associated with the maintenance of grapevine canopies.

All work must be carried out to comply with workplace procedures according to state/territory health and safety regulations, legislation and standards that apply to the workplace.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

### Pre-requisite Unit

Nil

### Unit Sector

Viticulture (VIT)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare to carry out basic canopy maintenance activities	1.1 Confirm job requirements 1.2 Identify potential health and safety hazards and controls according to workplace procedures 1.3 Select, fit and use personal protective equipment according to job

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	requirements 1.4 Confirm equipment is ready for use according to workplace procedures.
2. Position the vine canopy	2.1 Operate equipment according to workplace procedures 2.2 Remove unwanted growth according to workplace procedures 2.3 Position vine shoots according to workplace procedures
3. Control exposure of crop to sunlight	3.1 Apply sunlight control measures according to workplace procedures 3.2 Identify and report non-conformances according to workplace procedures
4. Complete canopy maintenance activities	4.1 Shut down equipment according to workplace procedures 4.2 Clean and store equipment according to workplace procedures 4.3 Dispose of vine cuttings according to environmental and workplace procedures 4.4 Record workplace information according to workplace procedures

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"> <li>Comprehend information from a variety of workplace documents</li> </ul>
Writing	<ul style="list-style-type: none"> <li>Produce workplace documents using industry-based vocabulary, grammar and conventions</li> </ul>
Oral Communication	<ul style="list-style-type: none"> <li>Converse clearly to confirm job requirements and seek assistance where required</li> </ul>
Navigate the world of work	<ul style="list-style-type: none"> <li>Apply workplace procedures and legislative responsibilities to own role</li> </ul>
Get the work done	<ul style="list-style-type: none"> <li>Respond to routine problems using step-by-step instructions and procedures</li> </ul>

Skill	Description
	<ul style="list-style-type: none"><li>Plan and organise tasks to achieve job requirements</li></ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPVIT2015 Carry out basic canopy maintenance	FDFWGG2023A Carry out basic canopy maintenance	Updated to meet Standards for Training Packages  Code changed to reflect industry sector  Minor changes to Performance Criteria for clarity	Equivalent unit

## Links

Companion Volume Implementation Guides are found in VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# Assessment Requirements for FBPVIT2015 Carry out basic canopy maintenance

## Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

## Performance Evidence

An individual demonstrating competency must satisfy all of the elements and performance criteria in this unit.

There must be evidence that the individual has demonstrated basic wine grapevine canopy maintenance at least twice using both manual and motorised equipment including:

- identifying and following health and safety procedures in the workplace
- selecting, fitting and using personal protective equipment
- selecting and confirming availability of equipment and preparing according to job requirements
- identifying and following instructions for canopy maintenance
- positioning vine shoots correctly, including removing unwanted growth
- using manual and motorised equipment according to workplace procedures
- controlling exposure of canopy to sunlight according to workplace procedures
- reporting problems and anomalies with vines or equipment
- shutting down and storing equipment according to workplace procedures
- disposing of waste according to workplace procedures
- completing workplace records.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- health and safety and environmental hazards and controls in the workplace
- selecting, fitting and using personal protective equipment
- canopy maintenance requirements according to workplace procedures, including:
  - vineyard non-conformances
  - purpose of canopy management activities
  - positioning the vine canopy, including identifying and removing unwanted growth, positioning spurs, and making cuts

- manipulating the vines
- controlling exposure of crop to light
- basic components and structure of vines, including:
  - vine trunk and permanent framework
  - canes and cordons
  - tendrils and buds
  - fruit
- operating equipment according to workplace procedures
- identifying equipment non-conformance including oiling moving parts and sharpening blades
- routine and emergency equipment shut down according to workplace procedures
- cleaning and storage requirements
- procedures for maintaining workplace records.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - a vineyard or an environment that accurately represents workplace conditions
- resources, equipment and materials:
  - personal protective equipment
  - pruning equipment, services and corresponding information
  - vines and materials
  - cleaning procedures, materials and equipment
  - system for reporting and recording information
- specifications:
  - workplace procedures, including advice on company practices, safe work practices, quality and environmental requirements.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## FBPVIT2016 Carry out hot water treatment

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

### Application

This unit of competency describes the skills and knowledge required to treat grape vine cuttings with hot water to meet industry standards.

The unit applies to individuals who are required to follow workplace procedures to use hot water treatment for cuttings in a vineyard.

All work must be carried out to comply with workplace procedures, according to state/territory health and safety, and food safety regulations, legislation and standards that apply to the workplace.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

### Pre-requisite Unit

Nil

### Unit Sector

Viticulture (VIT)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare for hot water treatment	1.1 Confirm job requirements 1.2 Confirm environmental guidelines and identify potential health and safety hazards and controls according to workplace procedures 1.3 Select, fit and use appropriate personal protective equipment relevant to the job requirements 1.4 Ensure cuttings are available and ready for use 1.5 Clean and set up the hot water treatment (HWT) tank and cool down tank to remove foreign matter and contaminants according to industry standard 1.6 Prepare water for hot water treatment, hydration and cool down according to specifications 1.7 Check, maintain and calibrate equipment to meet production specifications
2. Treat cuttings	2.1 Load cuttings into treatment basket and lower into HWT according to workplace procedures 2.2 Monitor temperature and control parameters according to workplace procedures 2.3 Lower cuttings into the cool down tank according to workplace procedures 2.4 Identify and address non-conformances
3. Carry out post-treatment procedures	3.1 Unload treatment basket according to workplace procedures 3.2 Store and label treated cuttings according to workplace procedures 3.3 Check chlorine levels and sanitation requirements for water quality according to workplace procedures 3.4 Collect and dispose of waste according to workplace environmental and waste management procedures 3.5 Record treatment information and complete logs or batch information according to workplace requirements

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"> <li>Comprehend information from a variety of workplace documents</li> </ul>
Writing	<ul style="list-style-type: none"> <li>Record hot water treatment information in required format</li> </ul>
Numeracy	<ul style="list-style-type: none"> <li>Monitor temperature gauges and interpret numerical information relevant to the hot water treatment process</li> </ul>
Navigate the world of work	<ul style="list-style-type: none"> <li>Apply workplace procedures to own role and responsibilities</li> </ul>
Get the work done	<ul style="list-style-type: none"> <li>Respond to routine problems by referring to workplace procedures</li> </ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPVIT2016 Carry out hot water treatment	FDFWGG2020A Carry out hot water treatment	Updated to meet Standards for Training Packages  Code changed to reflect industry sector  Minor changes to Performance Criteria for clarity	Equivalent unit

## Links

Companion Volume Implementation Guides are found in VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>



# Assessment Requirements for FBPVIT2016 Carry out hot water treatment

## Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

## Performance Evidence

An individual demonstrating competency must satisfy all of the elements and performance criteria in this unit.

There must be evidence that the individual has prepared hot water treatments, treated cuttings and carried out the post-treatment procedures on at least two separate occasions and demonstrated the following:

- identifying health and safety hazards and controls in the workplace
- selecting, fitting and using personal protective equipment according to job requirements
- applying current viticulture industry standards to heat treatment of cuttings
- handling and treating cuttings according to workplace procedures
- monitoring treatment processes and responding according to workplace procedures
- disposing of waste according to instructions and workplace procedures
- maintaining records according to industry and workplace requirements.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- purpose and process of hot water treatment
- how to set up equipment for hot water treatment according to workplace procedures
- how to prepare cuttings for treatment or re-hydration
- how to prepare water for cool down, hot water treatment and hydration:
  - testing and adjusting chlorination levels
  - checking and adjusting temperature levels
- current industry standards, legislation and workplace specifications for hot water treatments
- reasons for using different specifications for hot water treatments
- how to monitor the dipping process to ensure compliance according to workplace procedures including:

- monitoring critical control points for compliance with specifications
- analysing readouts from data logging devices
- maintaining level of agitation in the tanks
- maintaining chlorine level
- recalibrating thermometers
- procedures for storing treated cuttings:
  - separating from untreated cuttings to prevent contamination
  - covering with clean covers
  - placing cuttings in vented plastic bags to prevent dehydration
  - placing cuttings in the cold room
- workplace health and safety hazards and controls when undertaking hot water treatments
- principles of nursery hygiene
- cleaning requirements and procedures for work area and equipment
- environmental issues and controls:
  - identifying, rectifying and reporting environmental non-compliance
  - waste disposal requirements and procedures
- reporting and recording workplace procedures.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - a plant nursery workplace or an environment that accurately represents workplace conditions
- resources, equipment and materials:
  - personal protective equipment used for heat treatment of vines
  - equipment, services and corresponding information
  - products and materials to be treated
  - equipment cleaning procedures and materials
  - system for recording requirements and procedures
- specifications:
  - work procedures, including advice on company practices, safe work practices and environmental requirements
  - legislative and local quarantine regulations and codes of practice and industry standards for heat treatment of grape vines
  - work instructions and schedules.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## FBPVIT2017 Operate nursery cold storage facilities

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

### Application

This unit of competency describes the skills and knowledge required to prepare, operate, monitor and maintain nursery cold storage facilities.

The unit applies to individuals who are required to follow workplace procedures in completing tasks associated with nursery cold storage facilities.

All work must be carried out to comply with workplace procedures, according to state/territory health and safety, and food safety regulations, legislation and standards that apply to the workplace.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

### Pre-requisite Unit

Nil

### Unit Sector

Viticulture (VIT)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare cold room for storage	1.1 Confirm work instructions, relevant regulations and identify potential health and safety hazards and controls according to job requirements 1.2 Select and fit personal protective equipment

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	1.3 Clean and sanitise cold room facilities according to workplace procedures 1.4 Set cold room environment specifications for temperature, humidity and air flow according to workplace procedures
2. Operate and monitor cold room storage	2.1 Move and store stock to minimise loss according to workplace procedures 2.2 Apply storage layout and stock movement to meet cold room plan according to workplace procedures 2.3 Operate manual and mechanical transport according to workplace procedures 2.4 Monitor environmental controls for non-conformances 2.5 Monitor stock for signs of dehydration and fungal infection 2.6 Identify and address non-conformances according to workplace procedures
3. Maintain cold room	3.1 Start up and shut down cold room to meet manufacturers specifications 3.2 Clean, sanitise and secure cold room to maintain required hygiene 3.3 Collect and dispose of waste to maintain work area and meet environmental guidelines 3.4 Record cold room information accurately to ensure data is up to date

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"> <li>Comprehend information from a variety of workplace documents</li> </ul>
Numeracy	<ul style="list-style-type: none"> <li>Calculate numerical information relating to measuring and adjusting equipment controls</li> </ul>
Navigate the world of	<ul style="list-style-type: none"> <li>Follow clear instructions within defined level of responsibility</li> </ul>

Skill	Description
work	<ul style="list-style-type: none"><li>• Apply workplace procedures to own role and responsibilities</li></ul>
Get the work done	<ul style="list-style-type: none"><li>• Respond to routine problems by referring to workplace procedures</li></ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPVIT2017 Operate nursery cold storage facilities	FDFWGG2021A Operate nursery cold storage facilities	Updated to meet Standards for Training Packages  Code changed to reflect industry sector  Minor changes to Elements and Performance Criteria for clarity	Equivalent unit

## Links

Companion Volume Implementation Guides are found in VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# Assessment Requirements for FBPVIT2017 Operate nursery cold storage facilities

## Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

## Performance Evidence

An individual demonstrating competency must satisfy all of the elements and performance criteria in this unit.

There must be evidence that the individual has safely and effectively operated, monitored and maintained nursery cold storage facilities at least once and demonstrated the following including:

- following health and safety procedures in the workplace
- applying workplace procedures to cold room operations
- selecting and fitting personal protective equipment (PPE)
- monitoring cold storage and stock conditions according to workplace procedures
- identifying and reporting on anomalies
- shutting down, cleaning, sanitising and securing cold storage facilities
- identifying and addressing non-conformances
- maintaining records according to workplace procedures

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- health and safety hazards and controls when working in a cold room, including:
  - PPE
  - health and safety procedures
- accessing workplace information required to operate cold storage facilities
- principles and practices of cold room planning and operation, including:
  - purpose and components of a cold room
  - operating cold room equipment according to workplace procedures
- principles and practices of maintaining cold room performance including:
  - packing and monitoring a cold room including temperature, humidity and air flow

- common non-conformances and the corrective action required
- effect of cold storage on cuttings
- post-storage treatment of cuttings
- applying cold room plan
- moving material in and out of cold room
- using manual and mechanical transfer methods
- monitoring the health of cuttings during storage and checking for signs of:
  - dehydration
  - fungal infection
- starting up and shutting down equipment
- cold room nursery hygiene, including:
  - workplace environmental procedures and regulations
  - cleaning and sanitising requirements
  - waste collection and disposal
  - maintaining work area according to workplace procedures
- types of workplace records.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - a plant nursery workplace or an environment that accurately represents workplace cool room conditions
- resources, equipment and materials:
  - PPE used for operating a cold storage facility
  - equipment, services and materials for use in a cold storage facility
  - manual and mechanical cold storage transport
  - system for recording information
- specifications:
  - workplace procedures, including advice on company practices and safe work practices
  - equipment instructions and operation specifications
  - quarantine regulations and relevant codes of practice
  - industry standard procedures for cold storage of grape vines
  - cold room storage plan.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.



## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## FBPVIT2018 Support mechanical harvesting operations

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

### Application

This unit of competency describes the skills and knowledge required to collect grapes from a mechanical harvester and deliver them to the receival point.

The unit applies to individuals who are required to follow workplace procedures in supporting operations for mechanical harvesting.

All work must be carried out to comply with workplace procedures, according to state/territory health and safety, and food safety regulations, legislation and standards that apply to the workplace.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

### Pre-requisite Unit

Prerequisite unit of competency for this unit is:

- AHCMOM202 Operate tractors

### Unit Sector

Viticulture (VIT)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare for harvest support activities	1.1 Confirm job requirements 1.2 Confirm environmental guidelines and identify potential health and safety hazards and controls according to workplace procedures

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	1.3 Select and fit personal protective equipment relevant to the job requirements 1.4 Check, maintain and set equipment to meet workplace procedures
2. Collect grapes from harvester	2.1 Operate machinery and equipment safely with trailer or gondola attached alongside mechanical harvester 2.2 Monitor collection activities to confirm performance is maintained according to workplace procedures 2.3 Recognise and address non-conformances according to workplace procedures 2.4 Maintain equipment in good working order according to workplace procedures
3. Transfer grapes to despatch location	3.1 Add treatments to grapes according to workplace procedures 3.2 Comply with relevant legislation and quarantine codes of practice 3.3 Deliver grapes to receival point to meet workplace procedures
4. Complete harvest support activities	4.1 Shut down equipment safely and according to operator instructions 4.2 Clean equipment according to workplace procedures 4.3 Collect, sort and dispose of waste generated by the process or cleaning procedures according to workplace practices 4.4 Record workplace information accurately in the appropriate format

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"> <li>Comprehend information from a variety of workplace documents</li> </ul>
Oral Communication	<ul style="list-style-type: none"> <li>Converse clearly with workplace personnel to ensure safety of self and others when supporting harvesting operations</li> </ul>
Navigate the world of work	<ul style="list-style-type: none"> <li>Apply workplace procedures to own roles and responsibilities</li> </ul>

Skill	Description
Get the work done	<ul style="list-style-type: none"><li>Respond to routine problems by referring to workplace procedures</li></ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPVIT2018 Support mechanical harvesting operations	FDFWGG2015A Support mechanical harvesting operations	Updated to meet Standards for Training Packages  Code changed to reflect industry sector  Changes to Performance Criteria for clarity  One prerequisite unit removed	Equivalent unit

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# Assessment Requirements for FBPVIT2018 Support mechanical harvesting operations

## Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

## Performance Evidence

An individual demonstrating competency must satisfy all of the elements and performance criteria in this unit.

There must be evidence that the individual has demonstrated the following on at least two separate occasions when supporting mechanical harvesting operations including:

- accessing workplace information to identify job requirements
- identifying health and safety hazards and controls in the workplace
- selecting, fitting and using personal protective equipment (PPE)
- checking and confirming readiness of equipment before operation
- starting and operating equipment according to instructions
- monitoring harvesting operation to achieve job requirements
- identify and address non-conformances
- treating and delivering grapes according to task requirements
- shutting down equipment according to workplace procedures
- cleaning and storing equipment according to workplace procedures
- sorting, collecting, treating and disposing of waste according to environmental and workplace procedures
- maintaining appropriate records.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- key factors that will affect grape and wine quality, including:
  - temperature
  - oxidation
  - material other than grapes collected
  - speed of processing
  - treatment requirement

- health and safety hazards and controls in the workplace
- how to select, fit and use appropriate PPE
- procedures for identifying and addressing environmental issues
- procedures for carrying out pre-operational checks of equipment
- procedures for selecting, attaching, setting up and operating harvesters and tractor trailers used in the workplace
- procedures for collecting grapes to avoid damage to grapes, equipment, vines, trellises or fences
- procedures for shutting down, cleaning and maintaining equipment
- common problems during grape collection activities and methods for avoiding addressing and reporting them, including:
  - equipment breakages or malfunction
  - vine or trellis damage
  - grape quality and quantity
  - matter other than grapes collected
  - load weight
  - treatment application to fruit loads
  - collection accuracy of grapes
  - tipping accuracy of grapes at receival point
  - congestion or backlog at receival point
- recording requirements and procedures
- legislation and quarantine codes of practice related to vineyard products.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - a vineyard workplace or an environment that accurately represents workplace conditions
- resources, equipment and materials:
  - appropriate PPE
  - equipment with attached gondola or trailer
  - products and materials to be collected and delivered
  - cleaning procedures, materials and equipment
  - system for recording requirements and procedures
- specifications:
  - work procedures, including advice on company practices, safe work practices and environmental requirements
  - legislative and local quarantine regulations and codes of practice.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## **Links**

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## FBPVIT3001 Coordinate vineyard operations

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

### Application

This unit of competency describes the skills and knowledge required to coordinate vineyard operations in a range of day-to-day activities in areas such as harvesting, nursery, pruning or canopy management.

The unit applies to individuals who coordinate operations within a vineyard. They work under broad direction and exercise autonomy and judgement where required.

All work must be carried out to comply with workplace procedures, according to state/territory health and safety, and food safety regulations, legislation and standards that apply to the workplace.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

### Pre-requisite Unit

Nil

### Unit Sector

Viticulture (VIT)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare to coordinate vineyard activities	1.1 Interpret and confirm job requirements 1.2 Confirm environmental guidelines and identify potential health and safety hazards and controls according to workplace procedures



Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	1.3 Select and fit personal protective equipment according to the job requirements 1.4 Identify and clarify activity goals and job requirements with supervisor 1.5 Ensure appropriate personnel required are available 1.6 Ensure materials and equipment are available and ready
2. Coordinate vineyard activities	2.1 Confirm work targets, timelines and processes to achieve activity goals and job requirements 2.2 Allocate individual work tasks and roles to ensure activity goals and job requirements are met 2.3 Instruct workers and contractors according to workplace procedures 2.4 Monitor activities to ensure quality, timelines and job requirements are maintained according to workplace procedures 2.5 Identify and address barriers to achieving targets and job requirements
3. Complete coordination of vineyard activities	3.1 Monitor activities to ensure compliance with relevant workplace procedures on completion, shutdown and waste disposal 3.2 Debrief personnel according to workplace procedures 3.3 Record workplace information according to workplace procedures

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"> <li>Comprehend information from a variety of workplace documents</li> </ul>
Writing	<ul style="list-style-type: none"> <li>Record workplace information in required format</li> </ul>
Oral Communication	<ul style="list-style-type: none"> <li>Converse clearly with workplace personnel to confirm job requirements, monitor activities and provide feedback on performance of daily tasks</li> </ul>

Skill	Description
Numeracy	<ul style="list-style-type: none"> <li>Timetable and schedule vineyard work tasks according to required timeframes</li> </ul>
Navigate the world of work	<ul style="list-style-type: none"> <li>Apply workplace procedures and legislative requirements relevant to own role</li> </ul>
Interact with others	<ul style="list-style-type: none"> <li>Use required communication mode to report operational information to relevant personnel</li> </ul>
Get the work done	<ul style="list-style-type: none"> <li>Identify and solve problems by referring to workplace procedures</li> <li>Plan and organise tasks to achieve job requirements</li> </ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPVIT3001 Coordinate vineyard operations	FDFWGG3002A Coordinate canopy management activities	Redesigned unit that includes content from the previous unit	No equivalent unit
FBPVIT3001 Coordinate vineyard operations	FDFWGG3003A Coordinate crop harvesting activities	Redesigned unit that includes content from the previous unit	No equivalent unit
FBPVIT3001 Coordinate vineyard operations	FDFWGG3004A Coordinate nursery activities	Redesigned unit that includes content from the previous unit	No equivalent unit
FBPVIT3001 Coordinate vineyard operations	FDFWGG3006A Coordinate hand pruning activities	Redesigned unit that includes content from the previous unit	No equivalent unit

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# Assessment Requirements for FBPVIT3001 Coordinate vineyard operations

## Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

## Performance Evidence

An individual demonstrating competency must satisfy all of the elements and performance criteria in this unit.

There must be evidence that the individual has effectively coordinated operations in a vineyard involving day-to-day activities in areas of harvesting, nursery, pruning or canopy management at least once, including:

- complying with health and safety requirements in the workplace
- selecting and fitting personal protective equipment (PPE)
- determining activities required of the vineyard processes and individuals in order to meet job targets
- allocating activities and monitoring their implementation
- providing team leadership and instruction for vineyard personnel
- identifying and addressing non-conformances
- completing workplace records.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- workplace planning processes:
  - planning and scheduling vineyard activities
- personnel requirements:
  - equipment and materials required
  - location
  - transport
  - timing
  - environmental conditions
  - other vineyard activities

- quality and quantity requirements
- vineyard health and safety hazards and controls in the workplace
- vineyard environmental issues and controls
- team leadership communication principles and strategies
- procedures for monitoring and reporting on individual and team performance
- vineyard activities to be monitored:
  - compliance with workplace, environmental and quality procedures
  - individual and team performance
  - achievement of targets, timelines and performance requirements
  - team members' learning needs
  - instructing individuals and groups
  - providing feedback to individuals and groups
  - resolving conflicts
- how to recognise, correct and report non-conformances
- how to maintain workplace records.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - a vineyard workplace or an environment that accurately represents workplace conditions
- resources, equipment and materials:
  - PPE
  - vineyard equipment, services and corresponding information
  - products and materials required for vineyard work
  - system for recording requirements and procedures
- specifications:
  - work procedures, including advice on company practices, safe work practices, people management, quality and environmental requirements
  - work instructions and schedules
- relationships (internal and/or external):
  - small work groups or teams to coordinate.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>



## FBPVIT3002 Maintain field nursery

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

### Application

This unit of competency describes the skills and knowledge required to plant, maintain and process field nursery vines.

The unit applies to individuals who carry out workplace procedures in completing tasks associated with maintaining a field nursery.

All work must be carried out to comply with workplace procedures according to state/territory health and safety regulations, legislation and standards that apply to the workplace.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

### Pre-requisite Unit

Nil

### Unit Sector

Viticulture (VIT)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare for field nursery planting	1.1 Confirm job requirements 1.2 Confirm environmental guidelines and identify potential health and safety hazards and controls according to workplace procedures 1.3 Select, fit and use personal protective equipment according to job requirements

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	1.4 Prepare field nursery bed for planting according to workplace procedures 1.5 Prepare equipment and materials according to workplace procedures
2. Perform field nursery activities	2.1 Plant field nursery according to workplace procedures 2.2 Apply vine protection methods according to workplace procedures 2.3 Carry out field nursery activities according to workplace procedures 2.4 Monitor young vine growth and health according to workplace procedures 2.5 Identify and address non-conformances
3. Process field nursery rootlings for removal	3.1 Undercut and lift vine rootlings according to workplace procedures 3.2 Prepare rootlings for transport according to workplace procedures 3.3 Record workplace information according to workplace procedures

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"> <li>Comprehend information from a variety of workplace documents</li> </ul>
Writing	<ul style="list-style-type: none"> <li>Produce workplace documents in required format</li> </ul>
Navigate the world of work	<ul style="list-style-type: none"> <li>Apply workplace procedures and legislative responsibilities relevant to own role</li> </ul>
Interact with others	<ul style="list-style-type: none"> <li>Use required communication mode to report operational information to relevant personnel</li> </ul>
Get the work done	<ul style="list-style-type: none"> <li>Respond to routine problems by referring to workplace procedures</li> <li>Plan and organise tasks to achieve job requirements</li> </ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPVIT3002 Maintain field nursery	FDFWGG3005A Perform field nursery activities	Updated to meet Standards for Training Packages  Code and title changed to reflect industry sector  Minor changes to Performance Criteria for clarity	Equivalent unit

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>



# Assessment Requirements for FBPVIT3002 Maintain field nursery

## Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

## Performance Evidence

An individual demonstrating competency must satisfy all of the elements and performance criteria in this unit.

There must be evidence that the individual has effectively undertaken activities to maintain a field nursery at least once including planting, maintaining and processing field nursery vines and:

- following health and safety in the workplace procedures
- selecting and fitting personal protective equipment (PPE)
- planting in field nursery according to workplace procedures
- following vine protection procedures
- preparing for, implementing and monitoring nursery activities
- preparing vine rootlings for transport
- monitoring the health of rootlings
- Identify and addressing non-conformances.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- health and safety hazards and controls in the workplace
- PPE
- preparation of field nursery bed for planting:
  - treatment of weeds
  - soil cultivation and nutrition
  - planning vine planting
  - application of weed matting
  - herbicide and fertiliser treatments
  - positioning irrigation pipes and points

- methods of planting in field nursery
- selection and application of vine protection methods, including:
  - weather conditions
  - vineyard pests
  - orientation of vineyard
  - irrigation or fertilisation schedule
- maintenance of health of growing vines
- common causes and signs of growth disorders and corrective action required:
  - soil moisture
  - signs of disease and pests and nutrient deficiency
  - water stress
  - growth rate
- procedures for lifting vine rootlings from the nursery bed:
  - ensuring minimal plant damage
  - roots undercut
- procedures for transporting rootlings:
  - trimming
  - counting and bundling
  - labelling, grading and packing
- procedures for taking corrective action in response to out-of-specification growth or appearance
- procedures and responsibility for reporting problems
- environmental issues and controls
- reporting and recording requirements.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - a field plant nursery workplace or an environment that accurately represents workplace conditions
- resources, equipment and materials:
  - PPE
  - field nursery equipment
  - products and materials required for field nursery work
  - a system for recording information
- specifications:
  - work procedures, including advice on company practices, safe work practices and environmental requirements
  - work instructions and schedules.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# FBPVIT3003 Operate spreading and seeding equipment

## Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

## Application

This unit of competency describes the skills and knowledge required to attach, set up and detach spreading and seeding equipment that requires calibration.

The unit applies to individuals who complete spreading and seeding activities such as planting cover crops and ensuring deep incorporation of ameliorants and fertilisers.

All work must be carried out to comply with workplace procedures, according to state/territory health and safety, and food safety regulations, legislation and standards that apply to the workplace.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

## Pre-requisite Unit

Nil

## Unit Sector

Viticulture (VIT)

## Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare for operation	1.1 Interpret and confirm job requirements 1.2 Confirm environmental guidelines and identify potential health and safety hazards and controls according to workplace procedures 1.3 Select and fit personal protective equipment according to job

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	requirements 1.4 Prepare and ensure seeding or spreading materials are available to meet job requirements 1.5 Select, maintain, set and calibrate equipment to meet workplace procedures
2. Operate equipment	2.1 Start up and operate equipment safely according to workplace procedures 2.2 Apply materials according to job requirements 2.3 Monitor equipment performance 2.4 Recognise and address non-conformances with equipment operation in accordance with workplace procedures
3. Complete operation	3.1 Shut down equipment according to workplace procedures 3.2 Clean and store equipment according to workplace procedures 3.3 Collect, treat, and dispose of waste generated by the process according to workplace procedures 3.4 Record workplace information according to workplace procedures

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"> <li>Comprehend information from a variety of workplace documents</li> </ul>
Oral Communication	<ul style="list-style-type: none"> <li>Converse clearly to confirm job requirements</li> </ul>
Writing	<ul style="list-style-type: none"> <li>Record workplace information using industry-based vocabulary, grammar and conventions</li> </ul>
Navigate the world of work	<ul style="list-style-type: none"> <li>Apply workplace procedures and legislative responsibilities relevant to own role</li> </ul>
Get the work done	<ul style="list-style-type: none"> <li>Plan and organise tasks required to achieve job requirements</li> <li>Identify and solve problems by referring to workplace procedures</li> </ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPVIT3003 Operate spreading and seeding equipment	FDFWGG3013A Operate spreading and seeding equipment	Updated to meet Standards for Training Packages  Code changed to reflect industry sector  Minor changes to Elements and Performance Criteria for clarity  Prerequisites removed	Equivalent unit

## Links

Companion Volume Implementation Guides are found in VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# Assessment Requirements for FBPVIT3003 Operate spreading and seeding equipment

## Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

## Performance Evidence

An individual demonstrating competency must satisfy all of the elements and performance criteria in this unit.

There must be evidence that the individual has safely and effectively set up, operated and shut down seed spreading equipment at least once and demonstrated the following, including:

- recognising health and safety hazards and applying controls in the workplace
- selecting and using personal protective equipment (PPE)
- ensuring availability of specified materials and preparing according to workplace requirements
- selecting, attaching, setting up and calibrating equipment to meet job requirements
- starting, operating and shutting down equipment in accordance with workplace procedures
- monitoring spreading or seeding operations to achieve specified result
- shutting down the equipment according to workplace procedures
- taking corrective action in response to non-conformance results
- disposing of waste materials according to workplace and environmental policies
- recording information accurately.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- the purpose and application of spreading and seeding operations within the vineyard growing system, including:
  - soil ameliorants
  - inter-row cropping species and varieties
  - inter-row cropping practices and techniques
  - inorganic and organic fertilising materials
  - process specifications, procedures and operating parameters
- application parameters for seed or spreading materials:

- correct variety or type of seed and fertiliser
- correct soil ameliorant and treatment
- application rate
- volume
- application depth
- density
- coverage
- required weather conditions for activity
- soil characteristics as they apply to spreading and seeding operations
- purpose and operation of seeding and spreading equipment and instrumentation components:
  - common causes of non-conformance and corrective action required
  - significance and methods of monitoring equipment performance
  - storage procedures for equipment and materials
  - routine maintenance procedures for equipment
  - start up and shutdown sequence
- equipment status and condition:
  - belts and chains
  - lubricants
  - hydraulics
  - air intake
  - tyre pressure and wear
  - wear and tear
- how to select, attach, set up and calibrate equipment to meet job requirements
- how to select, prepare and load materials according to job requirements
- how to start up, operate and monitor equipment
- how to conduct routine maintenance of equipment according to workplace procedures
- local environment and operating conditions
- health and safety hazards and controls in the workplace
- PPE
- procedures and responsibility for reporting non-conformances
- procedures for collecting, sorting, treating, disposing of and recycling waste to meet environmental compliance
- equipment cleaning requirements and procedures
- storage requirements associated with temporary or seasonal breaks in activity
- procedures for maintaining workplace records.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:



- an agricultural or horticultural workplace or an environment that accurately represents workplace conditions
- resources, equipment and materials:
  - PPE
  - spreading and seeding equipment, services and corresponding information
  - spreading and seeding products and materials
  - cleaning procedures, materials and equipment
  - documentation and recording requirements and procedures
- specifications:
  - work procedures, including advice on company practices, safe work practices, equipment calibration and environmental requirements
  - work instructions and schedules.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volume Implementation Guides are found in VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# FBPVIT3004 Monitor and maintain nursery plants

## Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

## Application

This unit of competency describes the skills and knowledge required to monitor and maintain containerised nursery plants.

The unit applies to individuals who carry out workplace procedures in completing tasks associated with maintaining nursery plants.

All work must be carried out to comply with workplace procedures, according to state/territory health and safety, and food safety regulations, legislation and standards that apply to the workplace.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

## Pre-requisite Unit

Prerequisite unit of competency for this unit is:

- FBPVIT2012 Identify and treat nursery plants and disorders

## Unit Sector

Viticulture (VIT)

## Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Monitor environmental parameters	1.1 Confirm job requirements 1.2 Identify potential health and safety hazards and controls according to workplace procedures

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	1.3 Select and fit personal protective equipment according to the job requirements 1.4 Monitor environmental parameters against the production plan 1.5 Alter environmental parameters to meet the needs of the plants 1.6 Maintain nursery hygiene to comply with industry and workplace procedures
2. Determine daily water requirements	2.1 Identify plant water requirements to maintain required health and growth according to workplace procedures 2.2 Irrigate plants according to workplace procedures 2.3 Monitor water requirements according to workplace procedures 2.4 Maintain nursery irrigation system to meet plant production plan
3. Implement treatments to promote plant growth	3.1 Test potting media according to workplace procedures 3.2 Monitor overall health of plants according to workplace procedures 3.3 Implement plant treatments according to production plans 3.4 Identify and address non-conformances according to workplace procedures
4. Monitor the dispatch of stock	4.1 Confirm availability of stock and timing of dispatch with customers according to workplace procedures 4.2 Prepare plants for dispatch in line with customer requirements 4.3 Check stock to ensure it meets quality specifications 4.4 Check orders against stock being dispatched to ensure compliance 4.5 Record workplace information according to workplace procedures

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
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Skill	Description
Reading	<ul style="list-style-type: none"> <li>Comprehend information from a variety of workplace documents</li> </ul>
Numeracy	<ul style="list-style-type: none"> <li>Calculate numerical information relating to measuring quantities, adjusting equipment controls and stock operations</li> </ul>
Navigate the world of work	<ul style="list-style-type: none"> <li>Apply workplace procedures and legislative responsibilities relevant to own role</li> </ul>
Interact with others	<ul style="list-style-type: none"> <li>Use required communication mode to report operational information to relevant personnel</li> </ul>
Get the work done	<ul style="list-style-type: none"> <li>Respond to routine problems by referring to workplace procedures</li> <li>Plan and organise tasks to achieve job requirements</li> </ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPVIT3004 Monitor and maintain nursery plants	FDFWGG3009A Monitor and maintain nursery plants	<p>Updated to meet Standards for Training Packages</p> <p>Code changed to reflect industry sector</p> <p>Minor changes to Performance Criteria for clarity</p> <p>One prerequisite unit removed</p>	Equivalent unit

## Links

Companion Volume Implementation Guides are found in VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# Assessment Requirements for FBPVIT3004 Monitor and maintain nursery plants

## Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

## Performance Evidence

An individual demonstrating competency must satisfy all of the elements and performance criteria in this unit.

There must be evidence that the individual has safely and effectively monitored and maintained three different containerised nursery plants and demonstrated the following:

- identifying and following health and safety in the workplace procedures
- selecting and using personal protective equipment (PPE)
- identifying environmental factors and their effect on plant growth and health
- monitoring and controlling irrigation and treatments to meet production outcomes
- identifying and addressing non-conformances
- confirming available stock levels to meet customer requirements
- preparing stock for dispatch
- dispatching nursery plant stock to meet customer requirements
- completing documentation to workplace requirements.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- basic vine physiology, as it applies to:
  - transpiration
  - water intake
  - nutrient uptake
  - photosynthesis
  - respiration
  - translocation
- parts of the root, trunk, shoot and fruit systems of the grapevine, their role in how the vine works and their contribution to fruit quality:

- buds, nodes and tendrils
- cambium, epidermis, phloem and xylem
- leaf blade, bract and petiole
- bunch, berries and flowers
- key grape varieties and their distinguishing features:
  - berry and bunch characteristics
  - frost and disease resistance
  - flavour and style
- annual grapevine growth stages:
  - budburst
  - flowering
  - on set of ripening
  - maturity
- irrigation systems and methods including:
  - methods of calculating daily water needs
  - methods for monitoring water use
  - relationship between water needs of nursery plants and environmental parameters
- maintenance of irrigation systems:
  - fixing blockages
  - servicing irrigation system components
  - identifying and reporting faults in the irrigation system
  - fixing leaking heads and hoses
  - monitoring water requirements
  - using soil moisture devices
- checking plants for physical signs of water stress or waterlogging
- types of potting media, their characteristics and effect on plant growth
- tests to determine quality of potting media:
  - pH, drainage, aeration
  - salinity
  - nitrate levels
  - water repellence
- maintenance of work area to meet workplace hygiene standards:
  - removing weeds
  - removing dead or diseased plant materials
  - washing work area on transfer of plants
  - disinfecting tools, equipment and work areas
  - using foot baths on entry to different work areas
- procedures for applying treatments to vines:
  - fungicides
  - fertilisers

- insecticides
- hormones
- pruning
- hardening off
- preparing, mixing and using chemicals
- quality parameters for nursery plants
- treatments required by plants at different growth stages
- health and safety hazards and controls in the workplace:
  - selecting, fitting and using appropriate PPE
  - identifying potential and existing hazards in the work area and implementing safe work procedures to minimise hazards
- procedures for monitoring and preparing stock for dispatch:
  - packing, dispatching and handling techniques of nursery plants
  - labelling containers
  - checking orders against stock prepared
  - hydrating stock
- procedures and responsibility for reporting problems and anomalies
- procedures for liaising with customers
- procedures for maintaining workplace records.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - a plant nursery or an environment that accurately represents workplace conditions
- resources, equipment and materials:
  - PPE
  - equipment, services and corresponding information
  - nursery stock
  - hygiene procedures, materials and equipment
  - system for recording requirements and procedures
- specifications:
  - work procedures, including advice on company practices, safe work practices, plant quality and environmental requirements
  - work instructions and schedules.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>



## FBPVIT3005 Install and maintain vine trellis

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

### Application

This unit of competency describes the skills and knowledge required to install and maintain vine trellising.

The unit applies to individuals who are required to follow workplace procedures in completing tasks associated with installing and maintaining a vine trellis and take responsibility for their own work using discretion and judgement in the selection and use of available resources.

All work must be carried out to comply with workplace procedures according to state/territory health and safety regulations, legislation and standards that apply to the workplace.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

### Pre-requisite Unit

Nil

### Unit Sector

Viticulture (VIT)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare for trellising activities	1.1 Confirm work instructions and identify potential health and safety hazards and controls according to workplace procedures 1.2 Select, fit and use personal protective equipment according to job

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	requirements 1.3 Check existing trellises for signs of disrepair according to workplace procedures 1.4 Check, maintain and set equipment according to workplace procedures 1.5 Select materials for trellis installation or repair 1.6 Lay out posts and supports according to workplace procedures 1.7 Run out wire according to workplace procedures
2. Erect and maintain trellises	2.1 Operate trellis equipment according to workplace procedures 2.2 Erect trellis ends and posts and strain assemblies 2.3 Attach and tension foliage and trellis wires according to workplace procedures 2.4 Identify and address non-conformances 2.5 Carry out trellis maintenance and repair activities according to workplace procedures
3. Complete trellising activities	3.1 Shut down equipment according to workplace procedures 3.2 Clean and store equipment and materials according to workplace procedures 3.3 Collect and dispose of waste according to workplace and environmental procedures 3.4 Undertake work in accordance with workplace environmental guidelines 3.5 Record workplace information according to workplace procedures

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"> <li>Comprehend information from a variety of workplace documents</li> </ul>

Skill	Description
Writing	<ul style="list-style-type: none"> <li>Complete workplace documents in required format</li> </ul>
Oral Communication	<ul style="list-style-type: none"> <li>Communicate clearly to confirm vine trellis installation requirements</li> </ul>
Numeracy	<ul style="list-style-type: none"> <li>Calculate numerical information relating to estimating and measuring materials</li> </ul>
Navigate the world of work	<ul style="list-style-type: none"> <li>Apply workplace procedures and legislative responsibilities to own role</li> </ul>
Interact with others	<ul style="list-style-type: none"> <li>Use required communication mode to report operational information to relevant personnel</li> </ul>
Get the work done	<ul style="list-style-type: none"> <li>Plan, sequence and implement tasks according to set routines and procedures</li> <li>Problem solve issues as they arise</li> </ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPVIT3005 Install and maintain vine trellis	FDFWGG2016A Install and maintain vine trellis	<p>Updated to meet Standards for Training Packages</p> <p>Minor changes to Performance Criteria for clarity</p> <p>Code changed to reflect AQF level and industry sector</p>	Equivalent unit

## Links

Companion Volume Implementation Guides are found in VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# Assessment Requirements for FBPVIT3005 Install and maintain vine trellis

## Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

## Performance Evidence

An individual demonstrating competency must satisfy all of the elements and performance criteria in this unit.

There must be evidence that the individual has safely and effectively installed and maintained a vine trellis at least twice and demonstrated the following:

- identifying health and safety hazards and controls in the workplace
- using and fitting personal protective equipment (PPE)
- carrying out trellis repairs according to workplace procedures
- laying out posts and supports according to workplace procedures
- cutting, securing, positioning and tensioning wires according to workplace procedures
- storing unused materials according to workplace procedures
- collecting and disposing of waste according to workplace procedures.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- purpose, features and components of the trellis system:
  - trellis installation process
  - maintenance requirements of vineyard trellising and how to repair them
  - addressing non-conformances in trellis installation
  - selecting appropriate materials, including type and quantity
- health and safety hazards and controls in the workplace:
  - safe handling of materials and equipment
  - purpose and application of PPE
- how to repair a trellis, including:
  - positioning and depth of posts and strainers
  - positioning and number of wires

- tightness and grade of wire
- practices to lay out posts and supports, including:
  - spacing
  - type
  - numbers
  - positioning
- practices to run out wire including:
  - positioning
  - cutting correct length
  - erecting trellis ends and assemblies
  - securing of ends
- methods of attaching foliage and trellis wires including:
  - spacing
  - alignment
  - height
  - tension
  - fixing method
  - joining systems
- operation of trellising equipment:
  - checking equipment
  - using hand tools
- environmental issues, controls and reporting requirements
- cleaning and storage requirements and procedures for equipment and materials.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - a grape growing workplace or an environment that accurately represents workplace conditions
- resources, equipment and materials:
  - PPE
  - trellising equipment, services and corresponding information
  - trellising materials
  - cleaning and storing procedures, materials and equipment
  - documentation and recording requirements and procedures
- specifications:
  - work procedures, including advice on company practices, safe work practices and environmental requirements
  - work instructions and schedules.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## FBPVIT3006 Field graft vines

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

### Application

This unit of competency describes the skills and knowledge required to select appropriate vine material and graft vines in the field.

The unit applies to individuals are required to follow workplace procedures in completing tasks associated with a grape growing workplace and take responsibility for their own work using discretion and judgement in the selection and use of available resources.

All work must be carried out to comply with workplace procedures, according to state/territory health and safety, and food safety regulations, legislation and standards that apply to the workplace.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

### Pre-requisite Unit

Nil

### Unit Sector

Viticulture (VIT)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare to field graft vines	1.1 Confirm work instructions and identify potential health and safety hazards and controls according to job requirements 1.2 Select, fit and use personal protective equipment

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	1.3 Check and set equipment to meet job requirements 1.4 Ensure materials are available to meet grafting requirements according to workplace procedures 1.5 Select and prepare vine material for grafting according to workplace procedures
2. Graft vines in the field	2.1 Graft vines in the field according to workplace procedures 2.2 Treat vine graft unions according to workplace procedures 2.3 Treat vines post grafting and pack according to workplace procedures 2.4 Monitor grafting process and equipment to ensure results are maintained according to workplace procedures 2.5 Identify and address non-conformances
3. Complete field grafting activities	3.1 Clean and store equipment according to workplace procedures 3.2 Dispose of or store unused grafting material according to workplace procedures 3.3 Collect, treat and dispose waste according to workplace environmental procedures 3.4 Complete documentation according to workplace procedures

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"> <li>Comprehend information from a variety of workplace documents</li> </ul>
Writing	<ul style="list-style-type: none"> <li>Complete workplace documents in required format</li> </ul>
Oral Communication	<ul style="list-style-type: none"> <li>Communicate clearly to confirm grafting requirements</li> </ul>
Navigate the world of work	<ul style="list-style-type: none"> <li>Apply workplace procedures and legislative responsibilities to own role</li> </ul>



Skill	Description
Interact with others	<ul style="list-style-type: none"><li>• Use required communication mode to report operational information to relevant personnel</li></ul>
Get the work done	<ul style="list-style-type: none"><li>• Plan, sequence and implement tasks according to set routines and procedures</li><li>• Problem solve issues as they arise</li></ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPVIT3006 Field graft vines	FDFWGG2010A Field graft vines	Updated to meet Standards for Training Packages  Minor changes to Performance Criteria for clarity  Code changed to reflect AQF level and industry sector	Equivalent unit

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## Assessment Requirements for FBPVIT3006 Field graft vines

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

### Performance Evidence

An individual demonstrating competency must satisfy all of the elements and performance criteria in this unit.

There must be evidence that the individual has safely and effectively grafted vines in the field on at least two separate occasions including:

- selecting and preparing vine material for grafting, including disbudding
- using and fitting personal protective equipment (PPE)
- carrying out grafting of vines in the field according to workplace procedures
- conducting post-grafting treatment and packing of vines
- monitoring grafted vines, identifying and reporting non-compliances
- disposing of waste according to environmental workplace procedures
- recording and reporting results of grafting according to workplace procedures.

### Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- purpose and application of PPE
- health and safety hazards and controls in the workplace
- how to set up and operating equipment
- environmental issues and controls
- procedures and responsibility for reporting non-conformances
- soil characteristics as they apply to vine establishment:
  - structure
  - compaction
  - condition
  - present moisture
  - present nutrients and toxic factors
- parts of the vine
- planting requirements and procedures:

- spacing
- row width
- depth
- soil preparation
- rootling preparation
- soil compaction
- planting procedure
- rootling health
- correct disposal of waste material
- cleaning and storage of equipment
- appearance and features of healthy vine planting material
- cleaning and storage requirements for equipment
- recording workplace information.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - a grape growing workplace or an environment that accurately represents workplace conditions
- resources, equipment and materials:
  - PPE
  - field grafting equipment and services
  - grape vines
  - cleaning procedures, materials and equipment
  - system for recording information
- specifications:
  - workplace procedures, including advice on company practices, safe work practices, and environmental requirements
  - work instructions and schedules.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# FBPVIT3007 Operate specialised canopy management equipment

## Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

## Application

This unit of competency describes the skills and knowledge required to attach, set up, operate and detach canopy management equipment.

The unit applies to vineyard workers who carry out the operation of specialised equipment used in grape growing and take responsibility for their own work using discretion and judgement in the selection and use of available resources.

All work must be carried out to comply with workplace procedures, according to state/territory health and safety, and food safety regulations, legislation and standards that apply to the workplace.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

## Pre-requisite Unit

Prerequisite unit of competency for this unit is:

- AHCMOM202 Operate tractors

## Unit Sector

Viticulture (VIT)

## Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare for canopy management activities	1.1 Interpret and confirm job requirements 1.2 Confirm environmental guidelines and identify potential health

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	<p>and safety hazards and controls according to workplace procedures</p> <p>1.3 Select and fit personal protective equipment according to job requirements</p> <p>1.4 Identify and plan canopy management requirements</p> <p>1.5 Select and ensure canopy management equipment is available and suitable according to workplace procedures</p> <p>1.6 Set, maintain and attach equipment to meet production requirements according to workplace procedures</p>
2. Operate canopy management equipment	<p>2.1 Start up equipment safely according to workplace procedures</p> <p>2.2 Apply canopy management techniques according to vine vigour, capacity and local conditions</p> <p>2.3 Monitor equipment performance to confirm canopy management is maintained within job requirements</p> <p>2.4 Identify and address non-conformances</p>
3. Shut down canopy management equipment	<p>3.1 Shut down, detach and clean canopy management equipment according to workplace procedures</p> <p>3.2 Clear, tidy and store materials and equipment from site on completion of canopy management activities according to workplace procedures</p> <p>3.3 Collect and dispose of waste generated by canopy management activities according to environmental and workplace practices</p> <p>3.4 Record workplace information according to workplace procedures</p>

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"> <li>Interpret information from a variety of workplace documents</li> </ul>
Writing	<ul style="list-style-type: none"> <li>Record workplace information using industry-based vocabulary, grammar and conventions</li> </ul>

Skill	Description
Oral Communication	<ul style="list-style-type: none"><li>• Converse clearly to confirm job requirements</li></ul>
Navigate the world of work	<ul style="list-style-type: none"><li>• Apply workplace procedures and legislative responsibilities relevant to own role</li></ul>
Get the work done	<ul style="list-style-type: none"><li>• Identify and solve problems by referring to workplace procedures</li><li>• Plan and organise tasks to achieve job requirements</li></ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPVIT3007 Operate specialised canopy management equipment	FDFWGG2009A Operate specialised canopy management equipment	Updated to meet Standards for Training Packages  Minor changes to Performance Criteria for clarity  Code changed to reflect industry sector and AQF level	No equivalent unit

## Links

Companion Volume Implementation Guides are found in VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# Assessment Requirements for FBPVIT3007 Operate specialised canopy management equipment

## Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

## Performance Evidence

An individual demonstrating competency must satisfy all of the elements and performance criteria in this unit.

There must be evidence that the individual has safely and effectively set up, operated and shut down specialised canopy management equipment on at least one occasion including:

- recognising health and safety hazards in the workplace and applying controls
- selecting and using personal protective equipment (PPE)
- attaching and setting up equipment to meet job requirements
- starting, operating, and shutting down equipment safely and according to workplace procedures
- taking corrective action according to non-conformances
- disposing of waste according to workplace procedures
- recording information according to workplace procedures.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- key factors affecting the canopy management technique, including:
  - climate, forecast and current weather conditions
  - vineyard aspect and terrain
  - grape variety and vigour
  - grape quality and characteristics required
  - trellis design
  - harvesting techniques
  - disease risk and occurrence
  - stage of maturity and development
- canopy management equipment, operating parameters and procedures

- factors influencing vine vigour:
  - grape variety
  - trellis design
  - vine spacing
  - fertilisers
  - irrigation
  - rootstock
- features and benefits of a range of canopy management styles and techniques and their respective effect on grape quality, cropping yield and wine production requirements, including techniques to manage:
  - light penetration and shading
  - air circulation and disease reduction
  - annual growth stages of vine development
  - crop quality and quantity
- significance and method of monitoring canopy management activities
- purpose and basic components of canopy management equipment
- operational procedures for equipment:
  - attaching equipment to tractor
  - setting up equipment to meet requirements
  - confirming equipment status and condition
  - operating equipment to meet requirements
  - starting and shutting down equipment
  - recognising equipment performance problems and rectifying and reporting
  - cleaning and storing equipment
  - detaching equipment from tractor
  - using appropriate cleaning techniques
  - carrying out routine maintenance of equipment
- monitoring canopy management activities:
  - width of canopy
  - speed of tractor and power take-off rpm
  - density of foliage
  - air circulation
  - light penetration or shade
  - bud numbers, spur length
  - vine damage
  - rate of progress
- health and safety hazards and controls in the workplace
- selecting, fitting and using PPE
- environmental issues and controls
- basic vine canopy problems or anomalies



- taking corrective action in response to non-conformances
- system for reporting problems
- cleaning and storage requirements and procedures for equipment
- maintaining workplace records.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - a vineyard or an environment that accurately represents workplace conditions
- resources, equipment and materials:
  - PPE
  - canopy management equipment, services and corresponding information
  - vines requiring canopy management
  - cleaning procedures, materials and equipment
  - documentation and recording requirements and procedures
- specifications:
  - work procedures, including advice on company practices, safe work practices, canopy management and environmental requirements
  - work instructions and schedules.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# FBPVIT3008 Operate a mechanical harvester

## Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

## Application

This unit of competency describes the skills and knowledge required to set up and operate a mechanical harvester to meet harvesting requirements.

The unit applies to individuals who are required to follow workplace procedures in completing tasks associated with the operation of a mechanical harvester.

All work must be carried out to comply with workplace procedures according to state/territory health and safety regulations, legislation and standards that apply to the workplace.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

## Pre-requisite Unit

Nil

## Unit Sector

Viticulture (VIT)

## Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare for mechanical harvesting	1.1 Confirm job requirements 1.2 Identify potential health and safety hazards and environmental controls according to workplace procedures 1.3 Select, fit and use personal protective equipment according to job requirements

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	1.4 Ensure materials and equipment are ready for use according to workplace procedures 1.5 Set up and maintain equipment according to workplace procedures
2. Operate mechanical harvester	2.1 Start up and operate equipment according to workplace procedures 2.2 Monitor equipment performance 2.3 Adjust equipment operation according to workplace procedures 2.4 Identify and address non-conformances
3. Complete mechanical harvesting operations	3.1 Shut equipment down according to workplace procedures 3.2 Clean and store equipment according to workplace procedures 3.3 Collect, treat, dispose of waste according to environmental and workplace procedures 3.4 Record workplace information according to workplace procedures

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"> <li>Interpret information from a variety of workplace documents</li> </ul>
Oral Communication	<ul style="list-style-type: none"> <li>Converse clearly to confirm job requirements</li> </ul>
Writing	<ul style="list-style-type: none"> <li>Record workplace information using industry-based vocabulary, grammar and conventions</li> </ul>
Navigate the world of work	<ul style="list-style-type: none"> <li>Apply workplace procedures and legislative responsibilities relevant to own role</li> </ul>
Get the work done	<ul style="list-style-type: none"> <li>Plan and organise tasks to achieve job requirements</li> <li>Identify and solve problems by referring to workplace procedures</li> </ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPVIT3008 Operate a mechanical harvester	FDFWGG3008A Operate a mechanical harvester	Updated to meet Standards for Training Packages  Code changed to reflect industry sector  Minor changes to Performance Criteria for clarity	Equivalent unit

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# Assessment Requirements for FBPVIT3008 Operate a mechanical harvester

## Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

## Performance Evidence

An individual demonstrating competency must satisfy all of the elements and performance criteria in this unit.

There must be evidence that the individual has set up and safely operated a mechanical harvester to meet harvesting requirements on at least one occasion including:

- following health and safety in the workplace procedures
- selecting, fitting and using personal protective equipment (PPE)
- preparing, attaching and setting up equipment according to workplace procedures
- starting, operating and shutting down equipment according to workplace procedures
- adjusting operation to suit weather and terrain conditions
- identifying and addressing non-conformances
- managing the disposal of waste according to environmental workplace procedures
- recording information according to procedures.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- health and safety hazards and environmental controls in the workplace
- PPE
- key grape varieties and their distinguishing features for harvesting:
  - berry and bunch characteristics
  - frost and disease resistance
  - flavour and style as it applies to harvest
  - factors that affect grape ripening
  - effect of fruit quality on wine
- purpose of mechanical harvester components and operation including:
  - crop level

- grape variety
- vine age
- row height, width and trellis design
- slope, angle of row
- visibility
- monitoring mechanical harvester operation:
  - vine damage
  - grape quality and maturity
  - harvesting effectiveness (amount of fruit left in fruiting zone)
  - matter other than grape (MOG) collected
- maintenance procedures for equipment
- procedures and responsibility for non-conformances
- cleaning and storage procedures.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - a wine agricultural or horticultural workplace or an environment that accurately represents workplace conditions
- resources, equipment and materials:
  - PPE
  - equipment, services and corresponding information
  - cleaning procedures, materials and equipment
  - a system for recording information
- specifications:
  - work procedures, including advice on equipment operations, company practices, safe work practices and environmental requirements
  - work instructions and schedules.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## FBPVIT3009 Monitor and control vine disorders and damage

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

### Application

This unit of competency describes the skills and knowledge required to recognise, identify and monitor a variety of vine disorders and damage, and recommend and implement preventive or corrective action.

The unit applies to individuals who work under broad direction and take responsibility for their own work to monitor and control vine disorders and damage.

All work must be carried out to comply with workplace procedures, according to state/territory health and safety, and food safety regulations, legislation and standards that apply to the workplace.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

### Pre-requisite Unit

Nil

### Unit Sector

Viticulture (VIT)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Monitor vine health	1.1 Identify and confirm job requirements 1.2 Identify potential health and safety hazards and controls according to workplace procedures

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	1.3 Select, fit and use personal protective equipment according to workplace procedures 1.4 Monitor vineyard and recognise evidence of vine disorders, pests and diseases 1.5 Identify cause of symptoms of disorders, pests or diseases 1.6 Identify and recommend appropriate remedial actions with supervisor for approval
2. Implement control measures	2.1 Coordinate resources and brief personnel to deliver requirements according to workplace procedures 2.2 Implement approved control measures according to workplace procedures
3. Evaluate effectiveness of control activities	3.1 Monitor vineyard to evaluate the effectiveness of treatment 3.2 Record workplace information according to workplace procedures

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"> <li>Comprehend information from a variety of workplace documents</li> </ul>
Writing	<ul style="list-style-type: none"> <li>Record workplace information using industry-based vocabulary, grammar and conventions</li> </ul>
Oral Communication	<ul style="list-style-type: none"> <li>Converse clearly using industry-specific language to confirm remedial treatment requirements</li> </ul>
Numeracy	<ul style="list-style-type: none"> <li>Calculate numerical information relating to specifications, treatments and schedules</li> </ul>
Navigate the world of work	<ul style="list-style-type: none"> <li>Apply workplace procedures and legislative responsibilities relevant to own role</li> </ul>
Interact with others	<ul style="list-style-type: none"> <li>Use required communication mode to report operational information to relevant personnel</li> </ul>



Skill	Description
Get the work done	<ul style="list-style-type: none"><li>Plan and organise tasks to achieve job requirements</li><li>Identify and respond to routine problems by referring to workplace procedures</li></ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPVIT3009 Monitor and control vine disorders and damage	FDFWGG3012A Monitor and control vine disorders and damage	Updated to meet Standards for Training Packages  Code changed to reflect industry sector  Minor changes to Performance Criteria for clarity	Equivalent unit

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# Assessment Requirements for FBPVIT3009 Monitor and control vine disorders and damage

## Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

## Performance Evidence

An individual demonstrating competency must satisfy all of the elements and performance criteria in this unit.

There must be evidence that the individual has identified and treated vine disorders and damage on at least two separate occasions including:

- following health and safety in the workplace procedures
- selecting, fitting and using personal protective equipment (PPE)
- recognising symptoms of vine disorders and damage, and recommending appropriate treatments
- implementing treatments according to requirements
- evaluating effectiveness of treatments
- taking corrective action in response to non-conformances
- conducting work according to environmental and health and safety requirements
- completing workplace documentation.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- pests diseases and disorders that affect grape vines:
  - symptoms of vineyard pests, diseases, disorders and weeds, and their treatment
  - effect of pests, diseases, disorders and weeds on vine, fruit and wine quality
  - effect of prevention, control and eradication techniques on vine, fruit and wine quality
- basic vine physiology, as it applies to disorders:
  - water intake
  - nutrient uptake
  - photosynthesis
  - respiration, transpiration

- translocation
- parts of the root, trunk, shoot and fruit systems of the grapevine, their role in how the vine works and their contribution to fruit quality:
  - buds, nodes and tendrils
  - cambium, epidermis, phloem and xylem
  - leaf blade, bract and petiole
  - bunch, berries and flowers
- annual growth stages of grapevines:
  - budburst
  - flowering
  - on set of ripening
  - maturity
- vine types, their characteristics and uses:
  - family, genus and species
  - *Vitis vinifera* and commercial varieties
  - native species and hybrids (e.g. *V. labrusca*)
  - rootstocks and scion stock
- key grape varieties and their distinguishing features:
  - berry and bunch characteristics
  - frost and disease resistance
  - flavour and style
- industry processes for new variety development
- climatic implications and influence on the occurrence, development and treatment of vine disorders and damage
- resistance management strategies
- features and benefits of a variety of preventive, control and eradication techniques, including costs and interaction with environmental conditions
- environmental issues associated with preventive, control and eradication techniques, community issues and concerns
- monitoring techniques and procedures
- health and safety hazards and controls in the workplace
- evaluation techniques
- procedures and responsibility for non-conformances
- reporting and recording requirements
- procedures for rectifying and reporting environmental non-conformance
- procedures for maintaining workplace records
- procedures for instructing and supervising vineyard personnel and contractors.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - a vineyard or an environment that accurately represents workplace conditions
- resources, equipment and materials:
  - PPE
  - equipment, services and corresponding information
  - grape vines in nursery or vineyard
  - hygiene procedures, materials and equipment
  - documentation and recording requirements and procedures
- specifications:
  - work procedures, including advice on company practices, safe work practices, quality and environmental requirements
  - work instructions and schedules.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## FBPVIT3010 Implement a soil management program

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

### Application

This unit of competency describes the skills and knowledge required to monitor soil requirements and implement and evaluate a soil management program.

The unit applies to individuals who carry out workplace procedures in consultation with the manager in completing tasks associated with implementing a soil management program.

All work must be carried out to comply with workplace procedures, according to state/territory health and safety, and food safety regulations, legislation and standards that apply to the workplace.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

### Pre-requisite Unit

Nil

### Unit Sector

Viticulture (VIT)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Monitor vineyard soil management requirements	1.1 Interpret and confirm job requirements 1.2 Confirm environmental guidelines and identify potential workplace health and safety hazards and controls according to workplace procedures

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	1.3 Select and fit personal protective equipment according to the job requirements 1.4 Monitor vineyard soil and interpret results according to workplace procedures 1.5 Sample and test soils to determine options for soil management 1.6 Identify and recommend appropriate soil management activities to supervisor for approval
2. Implement soil management program	2.1 Coordinate resources and brief personnel to undertake soil improvement 2.2 Implement approved soil management activities 2.3 Monitor soil management activities to maintain program within specification
3. Evaluate effectiveness of soil management program	3.1 Monitor vineyard soil to evaluate effectiveness of activities 3.2 Monitor surrounding areas to evaluate environmental impact of soil management activities 3.3 Recognise and address non-conformances according to workplace procedures 3.4 Document soil management information according to workplace procedures

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"> <li>Interpret information from a variety of workplace documents</li> </ul>
Writing	<ul style="list-style-type: none"> <li>Produce workplace documents in required format</li> </ul>
Numeracy	<ul style="list-style-type: none"> <li>Calculate numerical information relating to specifications, treatments and schedules</li> </ul>
Navigate the world of	<ul style="list-style-type: none"> <li>Apply workplace procedures and legislative responsibilities relevant to own role</li> </ul>

Skill	Description
work	
Interact with others	<ul style="list-style-type: none"><li>• Use required communication mode to report operational information to relevant personnel</li></ul>
Get the work done	<ul style="list-style-type: none"><li>• Respond to routine problems by referring to workplace procedures</li><li>• Plan and organise tasks to achieve job requirements</li></ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPVIT3010 Implement a soil management program	FDFWGG3010A Implement a soil management program	Updated to meet Standards for Training Packages Code changed to reflect industry sector Minor changes to Performance Criteria for clarity Prerequisites removed	Equivalent unit

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## Assessment Requirements for FBPVIT3010 Implement a soil management program

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

### Performance Evidence

An individual demonstrating competency must satisfy all of the elements and performance criteria in this unit.

There must be evidence that the individual has monitored, implemented and evaluated a soil management program for a vineyard at least once and demonstrated the following including:

- accessing workplace information to identify vineyard soil requirements
- ensuring use of workplace health and safety procedures
- selecting and fitting personal protective equipment
- determining requirements for vineyard soil management and making recommendations for approval
- coordinating resources and activities to implement soil management program
- monitoring and identifying non-conformances with the effectiveness of soil management program
- completing workplace records.

### Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- workplace health and safety hazards and controls including selecting, fitting and using appropriate personal protective equipment
- soil management techniques and their effect on soil, vine growth, cropping levels and wine quality:
  - ideal soil environment for vines plus specific requirements of grapes grown
  - visual signs of vine nutrient deficiencies
  - sampling techniques and procedures
  - routine testing techniques and procedures
  - interpretation of routine tests



- procedures for monitoring the vineyard and interpreting the results to identify vineyard soil management requirements, including:
  - soil moisture content
  - water table level
  - weed population
  - nutrient levels in plant and soil
  - signs of vine nutrient deficiencies
  - climatic conditions
  - cover crop practices
  - soil analyses including pH and salinity
  - evidence of hard pans
  - soil texture
  - vine root distribution
  - irrigation water quality
  - erosion risk
  - soil management history
  - growth of mid-row sward
- procedures for planning and implementing the soil management program:
  - resources, including operators with appropriate skills
  - equipment availability and capability
  - materials and chemicals
  - maintenance programs and supplies
  - specific needs of individual blocks
  - application rates for soil addition
  - environmental conditions
- procedures for monitoring soil management activities:
  - operator performance
  - operating conditions
  - operating results
  - material supplies
  - equipment performance
- how to identify, rectify and report environmental non-conformance
- procedures and responsibility for reporting non-conformance
- consulting with appropriate personnel:
  - presenting and justifying recommendations to senior personnel
  - instructing and supervising operators
- application rates for soil addition
- how to complete workplace records.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - a vineyard workplace or an environment that accurately represents workplace conditions
- resources, equipment and materials:
  - personal protective equipment
  - sampling and testing equipment, services and corresponding information
  - vineyard soils and growing media
  - documentation and recording requirements and procedures
- specifications:
  - work procedures, including advice on company practices, safe work practices, soil quality and environmental requirements
  - work instructions and schedules.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## FBPVIT3011 Perform shed nursery activities

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

### Application

This unit of competency describes the skills and knowledge required to treat and prepare vine cuttings and freshly dug rootlings for sale or planting in the vineyard.

The unit applies to individuals who carry out workplace procedures in completing tasks associated with shed nursery activities.

All work must be carried out to comply with workplace procedures according to state/territory health and safety regulations, legislation and standards that apply to the workplace.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

### Pre-requisite Unit

Nil

### Unit Sector

Viticulture (VIT)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare cuttings for callusing	1.1 Confirm job requirements 1.2 Confirm environmental guidelines and identify potential health and safety hazards and controls according to workplace procedures 1.3 Select, fit and use personal protective equipment according to job requirements

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	1.4 Count, bundle and label cuttings according to workplace procedures 1.5 Treat and store cuttings according to workplace procedures
2. Prepare and maintain callusing environment	2.1 Prepare sand bed or callusing room according to workplace procedures 2.2 Place cuttings into callusing environment according to workplace procedures 2.3 Maintain callusing environment according to workplace procedures
3. Prepare rootlings for customer or planting	3.1 Trim, grade, pack and store rootlings according to according to workplace procedures 3.2 Collect and dispose of waste according to environmental and workplace procedures 3.3 Identify and address non-conformances 3.4 Record workplace information according to workplace procedures

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"> <li>Interpret information from a variety of workplace documents</li> </ul>
Numeracy	<ul style="list-style-type: none"> <li>Calculate numerical information relating to specifications, treatments and schedules</li> </ul>
Navigate the world of work	<ul style="list-style-type: none"> <li>Apply workplace procedures and legislative responsibilities relevant to own role</li> </ul>
Get the work done	<ul style="list-style-type: none"> <li>Plan and organise work to achieve job requirements</li> <li>Respond to routine problems by referring to workplace procedures</li> </ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPVIT3011 Perform shed nursery activities	FDFWGG3011A Perform shed nursery activities	Updated to meet Standards for Training Packages  Code changed to reflect industry sector  Minor changes to Performance Criteria for clarity	Equivalent unit

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# Assessment Requirements for FBPVIT3011 Perform shed nursery activities

## Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

## Performance Evidence

An individual demonstrating competency must satisfy all of the elements and performance criteria in this unit.

There must be evidence that the individual has effectively treated and prepared vine cuttings and freshly dug rootlings on at least two separate occasions including:

- identifying and using personal protective equipment (PPE)
- following health and safety and environmental procedures in the workplace
- conducting cuttings treatment and callusing activities according to workplace procedures
- preparing rootlings for packing and storage
- maintaining nursery environment to optimise plant health
- identifying and addressing non-conformances
- completing documentation.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- health and safety hazards and environmental controls including selecting, fitting and using PPE
- procedures and responsibilities for reporting problems
- common features of healthy vine cuttings or rootlings:
  - thickness of original cane
  - no evidence of pests and diseases
  - number, strength and distribution of new roots
  - number, maturity and distribution of shoots
  - visually complete and robust graft union
- common features of unhealthy vine cuttings or rootlings:
  - galls on stem and roots

- no shoots or roots
- damaged or destroyed buds
- excessive disease staining or spots on canes
- immature wood
- shoots on incorrect nodes
- faulty or broken graft unions
- too few or unevenly distributed root development
- pre-callusing treatment requirements:
  - purpose and benefit of treatments
  - fungicide treatment
  - re-hydration
  - scoring
  - root promoter treatment
  - cutting just below basal bud
  - assimilation after cool storage
- storage requirements of cuttings prior to callusing:
  - preparation requirements of callusing environment
  - callusing options
  - optimum callusing environment and its effect on the vine cutting
  - common problems that occur during callusing and how they should be resolved
- preparation requirements for rootlings and procedures for sales or transfer to vineyard
- package or storage requirements and procedures for rootlings ready for sale or transfer:
  - handling cuttings or rootlings to minimise damage
  - counting, bundling and labelling cuttings as required
- factors that influence how a cutting should be graded:
  - rootling preparation
  - packing preparation
  - packaging and storage requirements
- how to prepare sand bed or callusing room including:
  - packing sand or vermiculite
  - lining boxes
  - ensuring heaters and ventilators are working correctly to required temperature
- how to plant or place cuttings in callusing environment as required:
  - feeling into ground or sand
  - packing into boxes with vermiculite
  - watering in
  - correct number of cuttings per box
  - spacing (not too tight)
  - correct way up (basal end at bottom)
  - arranging according to variety, clone and source

- labelling and mapping of beds
- adding hormone mixes
- how to monitor callusing environment to maintain optimum conditions:
  - temperature
  - relative humidity
  - moisture levels of growing medium
  - weed and pest prevention
- how to pack rootlings to comply with customer requirements and standards:
  - maintenance of rootling health
  - minimisation of vine damage
  - mode of transport
  - destination time
  - storage time and method
  - prevention of dehydration
- how to trim rootlings (top growth and roots) ready for planting
- how to grade rootlings to comply with customer requirements
- waste disposal requirements and procedures
- hygiene requirements and procedures for work area and equipment, and considerations handling different batches and varieties
- environmental issues and controls:
  - identifying, rectifying and reporting environmental non-compliance
  - collecting, sorting, grading, treating and disposing of waste as required
- reporting and recording requirements
- how to prepare and mix chemicals safely
- how to recognise problems and anomalies with vines, equipment and materials.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - a shed nursery workplace or an environment that accurately represents workplace conditions
- resources, equipment and materials:
  - PPE
  - shed nursery equipment, services and corresponding information
  - cuttings, rootlings, materials and resources required for shed nursery work
  - documentation and recording requirements and procedures
- specifications:
  - work procedures, including advice on company practices, safe work practices, workplace hygiene, plant quality and environmental requirements
  - work instructions and schedules.



Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# FBPWHS1001 Identify safe work practices

## Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package version 1.0.

## Application

This unit of competency describes the skills and knowledge required to recognise known workplace hazards and identify work health and safety requirements and procedures relating to work activities.

The unit applies to individuals who are new entrants to the food industry and work alongside a supervisor in most situations, exercising limited autonomy within established and well known parameters.

All work must be carried out to comply with workplace procedures, in accordance with State/Territory work health and safety that apply to the workplace.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

## Pre-requisite Unit

Nil

## Unit Sector

Work health and safety (WHS)

## Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Recognise work health and safety requirements	1.1 Identify work health and safety legislative requirements applicable to the workplace roles and activities 1.2 Identify duty of care requirements

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	1.3 Identify and explain own responsibilities to comply with safe working practices
2. Identify workplace hazards and control measures	2.1 Identify basic principles of risk management 2.2 Recognise common workplace hazards 2.3 Identify measures for controlling risks according to workplace policies and procedures 2.4 Identify requirements for the selection and use of relevant personal protective equipment 2.5 Interpret safety signs and symbols 2.6 Recognise workplace procedures for reporting hazards and risks
3. Identify work health and safety communication and reporting requirements	3.1 Identify participative arrangements for work health and safety, including communication processes, information and documentation requirements 3.2 Identify designated work health and safety roles and relevant authorities for raising work health and safety concerns, including concerns relating to the right to refuse unsafe work
4. Recognise work health and safety incident and emergency response procedures	4.1 Identify workplace procedures for responding to incidents, injuries and emergencies 4.2 Identify workplace procedures for first aid 4.3 Locate fire safety equipment and emergency evacuation procedures

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"> <li>Interprets workplace health and safety information from a variety of sources to identify and apply relevant information</li> </ul>
Writing	<ul style="list-style-type: none"> <li>Uses clear language and correct concepts and terminology to ensure clarity of meaning when communicating workplace health and safety issues</li> </ul>

Skill	Description
Oral Communication	<ul style="list-style-type: none"><li>• Uses clear language and concepts, and tone and pace appropriate for the audience and purpose when communicating workplace health and safety issues</li></ul>
Navigate the world of work	<ul style="list-style-type: none"><li>• Recognises organisational expectations and follows explicit protocols and procedures</li><li>• Identifies and accepts responsibility for working within workplace frameworks</li><li>• Seeks clarification of policies and procedures when required</li></ul>
Interact with others	<ul style="list-style-type: none"><li>• Responds to clear requests and contributes to health and safety discussions when invited to do so, asking relevant questions as appropriate</li></ul>
Get the work done	<ul style="list-style-type: none"><li>• Follows clearly defined instructions and sequencing, and monitors own progress for the task, and seeks assistance when necessary</li><li>• Makes low-impact decisions around immediate clearly defined tasks</li><li>• Responds to highly obvious routine health and safety problems using instruction and procedures</li></ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPWHS1001 Identify safe work practices	FDFOHS1001A Work safely	Updated to meet Standards for Training Packages  Changes to Performance Criteria to align with competency standards  Change to title to reflect intent of unit	Equivalent unit

## Links

Companion Volumes, including Implementation Guides, are available at VETNet -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# Assessment Requirements for FBPWHS1001 Identify safe work practices

## Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package version 1.0.

## Performance Evidence

An individual demonstrating competency must satisfy all of the elements and performance criteria in this unit.

There must be evidence that the individual has, on at least one occasion:

- identified work health and safety legislative requirements applicable to own work
- interpreted the meaning of safety signs and symbols
- identified personal and protective equipment requirements
- identified the basic principles of risk management, and control measures used in the workplace
- recognised workplace hazards, incidents and injuries, and explained workplace procedures for reporting them
- explained own work health and safety rights and responsibilities in the workplace
- identified emergency procedures.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- applicable commonwealth, state or territory work health and safety legislation, regulations, standards, codes of practice and industry standards/guidance notes relevant to own work, role and responsibilities
- basic principles of risk management and assessment relating to work role
- common known workplace hazards
- potential consequences of failing to follow safe work practices
- common workplace safety signage and their meanings
- general workplace emergency response and evacuation procedures
- work activities which require licences, tickets or certificates of competency
- general first aid response requirements
- workplace procedures for raising work health and safety issues

- workplace procedures for reporting work health and safety hazards, accidents, incidents, emergencies, injuries, near misses and dangerous occurrences
- workplace procedures for responding to hazards, incidents and injuries
- general workers compensation and injury management requirements
- work health and safety hierarchy of controls
- work health and safety responsibilities and rights of duty holders, including persons in control of work/projects, employers and self-employed persons, supervisors, designers, manufacturers and suppliers, workers and inspectors
- own rights and responsibilities to comply with safe working practices, relating to identification of hazards, preventing bullying or harassment, use of amenities, smoking, use of drugs and alcohol and housekeeping
- role of work health and safety committees and representatives
- types of common personal protective equipment and fire safety equipment
- types of work health and safety information and documentation.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - a workplace or environment that accurately represents workplace conditions
- resources, equipment and materials:
  - relevant reporting forms and other safety information
- specifications:
  - workplace health and safety policies and procedures
  - workplace health and safety legislation, regulations and codes of practice
- relationships (internal and/or external):
  - supervisor or senior personnel.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volumes, including Implementation Guides, are available at VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# FBPWHS2001 Participate in work health and safety processes

## Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

## Application

This unit of competency describes the skills and knowledge required to carry out work in accordance with health and safety requirements and procedures, and to contribute to the maintenance of a safe workplace.

The unit applies to entry level workers responsible for applying safe work practices under general supervision.

All work must be carried out to comply with workplace procedures according to state/territory health and safety regulations, legislation and standards that apply to the workplace.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

## Pre-requisite Unit

Nil

## Unit Sector

Work health and safety (WHS)

## Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Plan and prepare to work safely	1.1 Identify rights and responsibilities of self and others under applicable legislation for health and safety in the workplace 1.2 Obtain, fit and correctly use personal protective equipment 1.3 Confirm work requirements and control measures associated with



Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	activity 1.4 Plan work activities to meet requirements 1.5 Interpret work safety signage 1.6 Carry out pre-start checks on equipment
2. Conduct work safely	2.1 Follow work procedures and workplace instructions to ensure safe work 2.2 Apply safe handling practices when moving materials and items 2.3 Undertake housekeeping in work area according to health and safety requirements
3. Respond to hazards	3.1 Identify hazards in the work area and assess risk 3.2 Take action to control risks for hazards according to workplace procedures 3.3 Report hazards and inadequacies in control measures in accordance with workplace procedures 3.4 Report incidents and injuries to designated personnel
4. Participate in work health and safety consultative activities	4.1 Identify roles and responsibilities of health and safety representatives and committees in the workplace 4.2 Participate constructively in workplace meetings, inspections or other consultative activities 4.3 Raise health and safety issues with designated personnel 4.4 Provide input to improve workplace health and safety systems and processes to eliminate hazards and reduce risks
5. Follow emergency response procedures	5.1 Identify emergency situations and procedures 5.2 Follow reporting and communication procedures during emergency situations 5.3 Follow organisation procedures for responding to emergencies

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Oral Communication	<ul style="list-style-type: none"> <li>• Uses correct terms when communicating information about health and safety</li> <li>• Uses listening and questioning skills to clarify understanding</li> </ul>
Navigate the world of work	<ul style="list-style-type: none"> <li>• Identifies and follows explicit workplace procedures</li> </ul>
Get the work done	<ul style="list-style-type: none"> <li>• Responds to routine problems related to risks and hazards</li> </ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPWHS2001 Participate in work health and safety processes	FDFOHS2001A Participate in OHS processes	<p>Updated to meet Standards for Training Packages</p> <p>Minor changes to Performance Criteria to clarify intent</p> <p>Change to title and code to reflect current industry terminology</p>	Equivalent unit

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# Assessment Requirements for FBPWHS2001 Participate in work health and safety processes

## Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

## Performance Evidence

An individual demonstrating competency must satisfy all of the elements and performance criteria in this unit.

There must be evidence that the individual has carried out work in accordance with health and safety requirements and procedures, and contributed to maintaining a safe workplace on at least two separate occasions, including:

- following clear, logical verbal or written instructions
- interpreting selected pictorial/graphical and written signs/instructions
- clarifying meaning of instructions with peers and supervisors
- giving accurate verbal or written descriptions of incidents or hazards
- actively participating in inspections, meetings and risk assessments.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- legislation, regulations, standards, codes of practice and industry standards/guidance notes relevant to own work, role and responsibilities
- safety signs and their meanings, including signs for:
  - personal protective equipment
  - emergency equipment
  - dangerous goods class signs
  - specific hazards, such as sharps and radiation
- the difference between a hazard and a risk
- nature of common workplace hazards, including chemicals, bodily fluids, sharps, noise, manual handling, work postures, underfoot hazards and moving parts of machinery
- potential consequences of not following safe work practices
- the elements within the hierarchy of control

- safety measures for controlling common workplace hazards
- sources of information about health and safety in the workplace
- the roles and responsibilities of employees for health and safety in the workplace
- roles and responsibilities of health and safety representatives, committees, supervisors, managers and employers
- workplace specific information, including:
  - hazards of the particular work environment
  - potential emergencies relevant to the workplace
  - designated person for raising issues about health and safety
  - organisation and work procedures particularly those related to performance of own work, specific hazards and risk control, reporting of hazards, incidents and injuries, consultation, use of personal protective equipment and emergency response
- potential emergency situations, alarms and signals, and required responses.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - skills must be demonstrated in a workplace setting or an environment that accurately represents a real workplace
- specifications:
  - workplace information about health and safety in the workplace, including legislative rights and responsibilities.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volume Implementation Guides are found in VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## FBPWHS2002 Identify and control risks in own work

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

### Application

This unit of competency describes the skills and knowledge required to identify hazards and assess risks in own work activity and work area, and implement procedures to control risks.

It applies to individuals working in production environments. Individuals work under general supervision but are responsible for recognising and controlling operational risks related to environmental, equipment, product, safety or economic factors.

All work must be carried out to comply with workplace procedures according to state/territory health and safety regulations, legislation and standards that apply to the workplace.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

### Pre-requisite Unit

Nil

### Unit Sector

Work health and safety (WHS)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Access information sources	1.1 Access hazard identification and risk assessment information in the workplace 1.2 Identify sources of external information and key support personnel
2. Identify hazards and	2.1 Identify workplace hazards and their potential or actual

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
risks in workplace	consequences 2.2 Determine conditions and contributing factors for risk realisation 2.3 Identify impact of own work on risk realisation
3. Assess risks	3.1 Use risk assessment tools to assess risks systematically 3.2 Collect sufficient evidence of the type and level of risk posed by identified hazards 3.3 Determine likelihood of risk realisation and potential consequences
4. Identify and implement controls	4.1 Identify workplace practices and procedures for controlling risks 4.2 Apply hierarchy of controls to minimise risk 4.3 Recognise emergency procedures for the workplace 4.4 Determine and implement practices for monitoring risk in own work
5. Maintain work processes	5.1 Document risk assessment outcome and actions to eliminate or control risks 5.2 Maintain documentation according to workplace procedures 5.3 Maintain communication with work colleagues to minimise risk

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Oral Communication	<ul style="list-style-type: none"> <li>Identify and respond effectively to information associated with health and safety in the workplace using appropriate language</li> <li>Seek clarification and assistance where required</li> </ul>
Navigate the world of work	<ul style="list-style-type: none"> <li>Recognise organisational expectations and follow explicit protocols and procedures for controlling risk</li> </ul>
Get the work done	<ul style="list-style-type: none"> <li>Follow clearly defined instructions and sequencing, monitor own progress for health and safety in the workplace</li> </ul>

Skill	Description
	<ul style="list-style-type: none"><li>Respond to predictable routine health and safety problems and implement standard or logical solutions</li></ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPWHS2002 Identify and control risks in own work	FDFWIN2002A Identify and control risks in own work	Updated to meet Standards for Training Packages  Minor changes to Performance Criteria for clarity  Unit code updated to reflect sector content	Equivalent unit

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## Assessment Requirements for FBPWHS2002 Identify and control risks in own work

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

### Performance Evidence

An individual demonstrating competency must satisfy all of the elements and performance criteria in this unit.

There must be evidence that the individual has identified and controlled risks on at least two occasions, including:

- implementing workplace procedures associated with hazard identification and risk control
- identifying workplace hazards and associated risks
- assessing risks
- taking action to minimise risks
- documenting outcomes of risk assessments.

### Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- steps in managing health and safety risks in the workplace
- hazard identification methods
- procedures for risk assessment
- ways of controlling hazards and risks, including hierarchy of control
- types of hazards relevant to work role, including:
  - physical environment
  - equipment or machinery
  - materials or substances
  - how work tasks are designed or performed
- basic health and safety legislative and workplace requirements for identifying hazards, assessing risk and applying controls:
  - when, where and how hazards must be identified
  - when, where and how risk assessments must be conducted



- risk assessment mechanisms commonly used
- record keeping requirements.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - skills must be demonstrated in a workplace setting or an environment that accurately represents a real workplace
- resources, equipment and materials:
  - production facilities
  - tools for conducting risk assessments, recording and reporting outcomes
- specifications:
  - current health and safety legislation and codes of practice relevant to identifying hazards and controlling risks in the workplace
  - workplace documentation relevant to identifying hazards and controlling risks in the workplace.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## FBPWHS4001 Identify, assess and control work health and safety risk in own work

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package version 1.0.

### Application

This unit of competency describes the skills and knowledge required to identify and address risks associated with a product or system of work, and develop and implement risk control measures to ensure workplace safety.

The unit applies to individuals who are technicians or specialists working with a systematic approach for health and safety with access to work health and safety specialist advice. Work typically involves addressing risk to ensure their own safety, as well as that of others who may be affected by their work.

All work must be carried out to comply with workplace procedures, in accordance with State/Territory work health and safety, and food safety regulations, legislation and standards that apply to the workplace.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

### Pre-requisite Unit

Nil

### Unit Sector

Work health and safety (WHS)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1 Identify hazards and assess risk associated with a product or system of work	1.1 Map production processes of the product or system of work 1.2 Identify hazards at each stage of the production processes 1.3 Systematically analyse hazards to identify risk of injury, illness or damage arising from the hazard 1.4 Identify factors contributing to the risk 1.5 Assess and evaluate the product or system of work against requirements of relevant work health and safety legislation, standards, codes of practice/compliance codes or guidance material 1.6 Consult potential users of the product or system of work
2 Control the risk of a product or system of work	2.1 Develop risk controls based on the hierarchy of control 2.2 Design fail-safe action into the product or system of work where there is a high consequence work health and safety risk, to minimise the impact of possible failure or defect 2.3 Monitor product or work system development as it evolves to identify new hazards and to manage any developing risk 2.4 Use a risk register to document residual risk and recommend actions to minimise risk 2.5 Communicate the risk management process and resultant risk register to those who may use or interact with the product or system of work 2.6 Document hazard identification, risk assessment and risk control processes, and make available to those who may be affected
3 Identify and record hazards and assess risks in own work	3.1 Identify and access sources of work health and safety information 3.2 Identify and eliminate hazards, and report residual risk according to workplace procedures 3.3 Use a risk register to document residual risk and actions to minimise risk, based on the hierarchy of control
4 Control risk in own work	4.1 Check work practices follow documented work procedures 4.2 Ensure work planning and conduct takes account of residual risk register 4.3 Identify, address and/or report deficiencies in risk controls 4.4 Maintain work health and safety records as required 4.5 Recognise personal professional limitations and seek expert advice

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	as required

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"> <li>Critically analyses documentation from a variety of sources and records and consolidates information to determine work health and safety requirements</li> </ul>
Writing	<ul style="list-style-type: none"> <li>Prepares and produces models and associated documents that convey complex relationships between risks and controls</li> <li>Develops procedural material for a specific audience, using clear and detailed language in order to convey explicit information and requirements</li> </ul>
Oral communication	<ul style="list-style-type: none"> <li>Uses collaborative and inclusive techniques, including active listening and questioning, and reading of verbal and non-verbal signals to convey and clarify information, and to confirm understanding on aspects of safety</li> </ul>
Learning	<ul style="list-style-type: none"> <li>Accepts new learning challenges by reflecting on personal limitations and seeking out advice</li> </ul>
Navigate the world of work	<ul style="list-style-type: none"> <li>Ensures knowledge of legislative requirements is kept up-to-date in order to provide accurate information</li> <li>Takes personal responsibility for following explicit and implicit policies, procedures and legislative requirements</li> <li>Seeks to improve policies and procedures to better meet organisational goals</li> </ul>
Interact with others	<ul style="list-style-type: none"> <li>Recognises the diversity in people and manages this diversity to improve workplace relations and practices</li> <li>Collaborates with others sharing information to build strong work groups and avoid behaviours that are not conducive to a safe environment</li> </ul>
Get the work done	<ul style="list-style-type: none"> <li>Takes responsibility for planning, sequencing and prioritising tasks and own workload for efficiency and effective outcomes</li> <li>Applies systematic and analytical decision-making processes for</li> </ul>

Skill	Description
	<p>complex and non-routine situations</p> <ul style="list-style-type: none"> <li>Contributes to continuous improvement of current work practices by applying basic principles of analytical and lateral thinking</li> </ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPWHS4001 Identify, assess and control work health and safety risk in own work	FDFOHS4001A Identify, assess and control OHS risk in own work	<p>Updated to meet Standards for Training Packages</p> <p>Minor changes to Performance Criteria for clarity</p> <p>Minor change to title to reflect current industry terminology</p>	Equivalent unit

## Links

Companion Volumes, including Implementation Guides, are available at VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# Assessment Requirements for FBPWHS4001 Identify, assess and control work health and safety risk in own work

## Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package version 1.0.

## Performance Evidence

An individual demonstrating competency must satisfy all of the elements and performance criteria in this unit.

There must be evidence that the individual has, on at least one occasion:

- accessed, interpreted and applied work health and safety information, including work health and safety legislation, guidance material and benchmarks
- communicated with potential users of the product or system of work, other technicians/specialists, managers and expert advisers
- conducted risk assessments and analysed effectiveness of control measures
- analysed work systems and monitored safety performance
- assessed compliance with work health and safety legislation or procedures
- developed and maintained work health and safety records
- recognised and developed personal work health and safety expertise.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- the difference between hazards and risks
- sources of work health and safety information both internal and external to the organisation
- nature of common workplace hazards, including chemicals, noise, manual handling work postures, underfoot hazards and moving parts of equipment
- regulatory requirements relevant to the particular industry/type of work site
- requirements for hazard identification and hazard identification processes
- principles of risk management, including risk analysis
- examples of safety benchmarks
- the hierarchy of control and its application
- principles of 'safe design' processes

- work health and safety legislative requirements for record keeping and reporting
- personal protective equipment requirements, including selection, use, storage and maintenance
- workplace specific information, including:
  - in-depth knowledge of hazards of the particular work environment and how they cause harm
  - hazard identification procedures relevant to the hazards in their workplace
  - work procedures
- organisation procedures related to work health and safety, including:
  - hazard, incident and injury reporting
  - hazard identification, risk assessment and control
  - consultation and participation
  - incident investigation
  - record keeping
- the legal rights and responsibilities of the workplace parties in relation to work health and safety.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - a workplace or an environment that accurately represents workplace conditions
- specifications:
  - work health and safety legislation, regulations and codes of practice
  - relevant workplace policies and procedures
- relationships (internal and/or external):
  - additional external expertise for advice
  - teams and/or committees for developing work health and safety procedures.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volumes, including Implementation Guides, are available at VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## FBPWHS5001 Manage work health and safety processes

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package version 1.0.

### Application

This unit of competency describes the skills and knowledge required to manage the ongoing implementation of work health and safety procedures and processes.

This unit applies to individuals who manage a small organisation, several work groups or a larger group within an organisation. Work is likely to have a focus on maintaining already established processes and the unit assumes that work health and safety advice and expertise is available.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

### Pre-requisite Unit

Nil

### Unit Sector

Work health and safety (WHS)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Manage work health and safety information and records	1.1 Identify and access relevant work health and safety legislation, standards, codes of practice/compliance codes, guidance material and other sources of work health and safety information and evaluate their relevance to the specific work context  1.2 Collect and collate information on work health and safety requirements, trends and risk controls and provide to others



Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	<p>1.3 Review records and record keeping processes to ensure that legal requirements for work health and safety record keeping are identified and addressed</p> <p>1.4 Implement and monitor processes for ensuring that work health and safety records are accurately completed, collected and stored in accordance with legal requirements and workplace procedures</p>
2. Manage work health and safety participative processes	<p>2.1 Monitor participative processes to ensure compliance with legislative requirements and organisation procedures</p> <p>2.2 Evaluate information provided to employees to ensure it is in a readily accessible and understandable format</p> <p>2.3 Implement and monitor processes for ensuring that workgroup members have an opportunity, either directly or through their representative, to contribute to decisions that may affect their health and safety</p> <p>2.4 Evaluate processes for addressing work health and safety issues to ensure issues raised through consultation are resolved promptly and in line with organisation procedures and legislative requirements</p> <p>2.5 Provide prompt information about the outcomes of consultation to employees in a format and medium that is readily accessible</p>
3. Manage work health and safety risk management processes	<p>3.1 Ensure hazard, incident, and injury reporting and investigation processes are in place to meet legislative requirements and to inform future prevention strategies</p> <p>3.2 Ensure processes are in place so that hazard identification and risk assessments occur according to organisation procedures</p> <p>3.3 Ensure risk controls and hazard specific procedures are consistent with the hierarchy of control and are monitored to support compliance with legislative and regulatory requirements</p> <p>3.4 Ensure processes are in place to identify and address any work health and safety implications of either proposed or implemented changes to the workplace, work processes or organisation of work</p> <p>3.5 Recognise limits of own professional expertise and consult expert advisors as required</p>
4. Manage work health and safety training program	<p>4.1 Assess work health and safety training needs of workgroup members, taking into account legislative and regulatory requirements, internal policies and procedures, existing skills of work group members and risk control requirements</p>

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	<p>4.2 Implement and monitor training programs to ensure identified work health and safety training requirements are addressed</p> <p>4.3 Implement and monitor processes to ensure that all new employees receive work health and safety induction</p> <p>4.4 Access and consult relevant work health and safety and training specialists as required in the development and implementation of the training program</p>
5. Manage work health and safety continuous improvement process	<p>5.1 Obtain and consider input from individuals and workgroup in identifying and implementing work health and safety improvement</p> <p>5.2 Determine work health and safety priorities in consultation with appropriate managers and stakeholders</p> <p>5.3 Develop work health and safety action plans, taking priorities and training needs into account</p> <p>5.4 Monitor and update achievements against the work health and safety plans accordingly</p>

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"> <li>Comprehends, interprets and synthesises complex information from a range of sources</li> </ul>
Writing	<ul style="list-style-type: none"> <li>Presents information using vocabulary and format suitable for the task</li> </ul>
Oral communication	<ul style="list-style-type: none"> <li>Presents ideas and information choosing appropriate vocabulary for purpose and audience</li> <li>Uses questioning and active listening to seek opinions or information and to clarify understanding</li> </ul>
Navigate the world of work	<ul style="list-style-type: none"> <li>Monitors adherence to legal and regulatory responsibilities for self and others in relation to work health and safety requirements</li> </ul>
Interact with others	<ul style="list-style-type: none"> <li>Chooses appropriate communication methods to present</li> </ul>

Skill	Description
	information to a range of individuals
Get the work done	<ul style="list-style-type: none"><li>• Develops plans to manage relatively complex tasks with an awareness of how they contribute to the organisation</li><li>• Applies problem solving techniques to address complex work health and safety issues</li></ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPWHS5001 Manage work health and safety processes	FDFOHS5001A Manage OHS processes	Updated to meet Standards for Training Packages  Minor changes to Performance Criteria for clarity  Minor change to title to reflect current industry terminology	Equivalent unit

## Links

Companion Volumes, including Implementation Guides, are available at VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# Assessment Requirements for FBPWHS5001 Manage work health and safety processes

## Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package version 1.0.

## Performance Evidence

An individual demonstrating competency must satisfy all of the elements and performance criteria in this unit.

There must be evidence that the individual has completed all steps in managing the work health and safety process in at least one workplace context, including:

- accessing and interpreting work health and safety information, including legislation, guidance material and benchmarks
- monitoring a record keeping process for compliance with legal requirements for work health and safety
- communicating work health and safety information to others using a range of media and formats
- managing effective work health and safety consultation and participation processes including development, implementation, monitoring and review, in consultation with others
- managing work health and safety risk management processes
- implementing a risk management approach to developing solutions to complex work health and safety problems, utilising information from a range of sources
- applying an action planning process
- assessing policies and procedures for compliance with work health and safety legislation
- managing workplace information and records to ensure all are current and accurate
- facilitating participatory consultative processes
- evaluating work processes for collecting and providing information
- determining support and training needs of work group
- implementing and monitoring training programs
- evaluate and monitor risk management processes
- managing a continuous improvement process.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- the difference between hazard and risk
- sources of work health and safety information both internal and external to the workplace
- understanding of work health and safety legislation and regulatory requirements relevant to the particular industry/type of work site
- the roles and responsibilities of employees, supervisors and managers in the workplace
- legislative requirements for consultation
- legal and practical requirements for work health and safety training
- legal requirements for work health and safety record keeping and reporting
- guidance material, including codes of practice/compliance codes relevant to the particular industry/type of work site
- risk assessment process, including:
  - hazard identification procedures
  - principles of risk assessment
  - the hierarchy of control and its application
  - legislative requirements for record keeping and reporting
- systems for identifying skill needs, such as:
  - performance reviews
  - training needs analysis
  - identifying additional training needs of learners
- workplace specific information, including:
  - hazards of the particular work environment and how they cause harm
  - hazard identification procedures relevant to the hazards in their workplace
  - designated person for raising work health and safety issues
- organisation procedures related to work health and safety, including hazard, incident and injury reporting, hazard identification, risk assessment and control, consultation and participation, incident investigation and record keeping
- awards and enterprise agreements that impact on the particular workplace
- the characteristics and composition of the workforce and how they may impact on the management of work health and safety.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - a workplace or an environment that accurately represents workplace conditions
- resources, equipment and materials:
  - sample documents and forms appropriate for recording and reporting work health and safety issues

- sample emergency procedures and related resources
- specifications:
  - work health and safety legislation, regulations and codes of practice
  - workplace policies and procedures for work health and safety
- relationships (internal and/or external):
  - experts in work health and safety for advice and direction.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volumes, including Implementation Guides, are available at VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## FBPWIN2001 Perform effectively in a wine industry workplace

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

### Application

This unit of competency describes the skills and knowledge required to work in a wine industry enterprise.

The unit applies to entry level wine industry workers who generally work under supervision but need to comprehend and follow workplace procedures.

All work must be carried out to comply with workplace procedures according to state/territory health and safety, and food safety legislation and standards that apply to the workplace.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

### Pre-requisite Unit

Nil

### Unit Sector

Wine Operations (WIN)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Recognise enterprise objectives and products	1.1 Access and interpret workplace information to identify enterprise objectives and job roles 1.2 Use workplace information to identify range of enterprise wine products and services 1.3 Use workplace information to identify the enterprise's role in the

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	wine industry supply chain
2. Recognise wine operations production streams and functions	<p>2.1 Identify key production sites and equipment and relate their role to the wine production process</p> <p>2.2 Relate each key function of the worksite to the product range and quality</p> <p>2.3 Identify key stages in wine production and relate each stage to end products</p>
3. Identify workplace role and responsibilities	<p>3.1 Identify key responsibilities of own section or function and impact of own role on wine production or supply</p> <p>3.2 Establish own responsibilities for continuous improvement in accordance with workplace requirements</p> <p>3.3 Determine a typical schedule of work relating to own responsibilities</p>
4. Interpret workplace procedures and employment conditions	<p>4.1 Identify personal employment terms and conditions</p> <p>4.2 Identify workplace policies that impact on work role</p> <p>4.3 Apply workplace hazard identification and safety procedures to work role</p> <p>4.4 Determine workplace procedures related to compliance with environmental legislation</p> <p>4.5 Recognise the function of food safety and quality procedures to the enterprise's operations</p> <p>4.6 Relate workplace policies about diversity and anti-discrimination to work role</p>
5. Maintain work area	<p>5.1 Clean and keep work area safe and tidy according to workplace and legislative requirements</p> <p>5.2 Maintain personal hygiene standards according to workplace and legislative requirements</p> <p>5.3 Store equipment and materials according to workplace requirements</p>



## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"><li>Comprehend information from a variety of workplace documents</li></ul>
Numeracy	<ul style="list-style-type: none"><li>Perform calculations required to create timelines and schedules</li></ul>
Get the work done	<ul style="list-style-type: none"><li>Plan and organise tasks related to own work role</li></ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPWIN2001 Perform effectively in a wine industry workplace	FDFWIN2001A Perform effectively in a wine industry workplace	Updated to meet Standards for Training Packages  Modifications to Elements and Performance Criteria for clarity	Equivalent unit

## Links

Companion Volume Implementation Guides are found in VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# Assessment Requirements for FBPWIN2001 Perform effectively in a wine industry workplace

## Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

## Performance Evidence

An individual demonstrating competency must satisfy all elements and performance criteria in this unit.

There must be evidence that the individual has accessed and used information for at least one wine industry enterprise and identified:

- its objectives
- its job roles and how these roles contribute to the objectives
- the range of products and/or services offered
- production sites, including:
  - site names
  - site locations
  - functions and contribution of each site to the overall objectives of the enterprise
  - key personnel and contact details
- key information about the enterprise, including:
  - brands, logos and labels
  - names of parent or other associated businesses
- responsibilities of own role in the enterprise
- daily work schedule for own role
- workplace requirements for personal hygiene
- workplace requirements for maintaining work area.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- how an enterprise describes its purpose in:
  - mission statements

- vision statements
- objectives
- the key functions within a wine industry workplace including:
  - viticulture, cellar operations (wine making), laboratory, bottling and packaging, and cellar door sales, and
  - how each function or process contributes to product and service quality
- stages in wine production and supply and the output at each stage
- key wine industry and enterprise events, including seasonal and promotional activities
- workplace procedures relevant to:
  - health and safety
  - food safety
  - environmental and waste management
  - anti-discrimination
  - continuous improvement
  - personal employment terms and conditions
  - maintaining work area
  - storing materials and equipment
- the legislative requirements associated with health and safety in the workplace, food safety, environmental management, anti-discrimination and employment
- personal hygiene standards and procedures:
  - cleanliness
  - hair and hair nets
  - work clothes and uniforms
  - reporting sickness or injuries
  - eating and drinking in the workplace
- using workplace information sources, including:
  - how and where to find information
  - updating and access requirements.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - a wine industry workplace or an environment that accurately represents workplace conditions
- resources, equipment and materials:
  - information about the Australian wine industry
  - information about the specific wine industry workplace
  - cleaning equipment and materials
- specifications:
  - relevant workplace policies and procedures and legislative information.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## FBPWIN2002 Communicate wine industry information

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

### Application

This unit of competency describes the skills and knowledge required to communicate information on key characteristics of Australian wine production and the wine industry. It supports an introduction to the wine operations industry for basic wine grape growing (viticulture), cellar operations (wine making) and cellar door sales.

The unit applies to individuals who are new to the wine operations industry, including wine region tourism personnel and wine enterprise support staff who work alongside a supervisor in most situations and exercise limited autonomy.

All work must be carried out to comply with workplace procedures, according to state/territory health and safety, and food safety regulations, legislation and standards that apply to the workplace.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

### Pre-requisite Unit

Nil

### Unit Sector

Wine Operations (WIN)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Recognise major processes and stages of	1.1 Identify major processes in wine grape growing

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
wine grape growing	1.2 Relate processes to operational sequencing and timing 1.3 Recognise tasks and job roles associated with processes 1.4 Identify vintage operations, including picking and transportation 1.5 Use basic industry terminology when communicating during wine grape growing activities
2. Recognise and relate the features of grapes to production activities	2.1 Identify physiology of wine grapes related to production activities 2.2 Recognise key characteristics and growth phases of grape vines to seasonal production activities 2.3 Relate the impact of soil and climate on grape growing activities and grape quality 2.4 Identify key risks to successful grape growing 2.5 Recognise characteristics of varietal grape maturity and relate to harvesting activities
3. Recognise wine grape varieties and Australian regions in which they are grown	3.1 Recognise the major Australian wine regions and relate to wine production and grape growing 3.2 Recognise differences between major grape vine varieties and grape production
4. Provide information on major stages in winemaking	4.1 Recognise key activities in preparing grapes for wine production 4.2 Outline the purposes and processes of crushing, pressing, fermentation, maturation, fining, filtering, bottling and packaging of wines 4.3 Provide information on the sequence of operations and key equipment used for the production and storage of wine 4.4 Provide information on basic differences between red, white, fortified and sparkling wine production 4.5 Use industry terminology when providing information on wine processing and features to clients or customers
5. Relate basic wine sales and marketing strategies and processes to wine enterprise operations	5.1 Recognise standard ways of packaging and labelling wine 5.2 Interpret range and purpose of labelling information 5.3 Identify the scope and purpose of cellar door operations 5.4 Identify and compare major Australian wine regions, wine types and wine styles 5.5 Provide information on key features and market expectations of

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	wine from different Australian regions 5.6 Identify the features, techniques and terminology used in standard wine evaluations

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Learning	<ul style="list-style-type: none"> <li>Locate information required to develop knowledge and understanding of viticulture, wine making and sales</li> </ul>
Reading	<ul style="list-style-type: none"> <li>Access and comprehend information from a variety of workplace documents</li> </ul>
Writing	<ul style="list-style-type: none"> <li>Produce workplace documents using industry-based vocabulary</li> </ul>
Oral Communication	<ul style="list-style-type: none"> <li>Provide industry-specific information to a range of audiences</li> </ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPWIN2002 Communicate wine industry information	FDFWIN1001A Identify key operations in wine production	Redesigned unit that includes content from previous units	No equivalent unit
FBPWIN2002 Communicate wine industry information	FDFWIN1002A Identify viticulture processes	Redesigned unit that includes content from previous units	No equivalent unit

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>



## Assessment Requirements for FBPWIN2002 Communicate wine industry information

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

### Performance Evidence

An individual demonstrating competency must satisfy all elements and performance criteria in this unit.

There must be evidence that the individual has provided and applied information in at least one wine operations workplace environment including:

- using industry-standard terminology to communicate information about wine grape growing activities regarding:
  - sequencing and timing of main processes
  - tasks and job roles during each process
- identifying the relationships between basic wine grape physiology, varieties and habit of growth to wine production activities
- identifying the key differences in grape production for Australian wine regions
- explaining how red, white, fortified and sparkling wines are produced including:
  - grape preparation
  - major processes
  - equipment needed
  - features of each wine type
- using industry terminology to communicate information about the features of one type of wine to a customer or client
- describing common types of wine bottling, labelling and packaging and reasons for particular choice of bottle, label or packaging
- describing the range of common wine products and how they are marketed.

### Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- main stages of grape vine growth

- principles of grape vine propagation:
  - cuttings
  - grafting
- basic wine grape growing techniques:
  - planting
  - irrigation
  - fertilising
  - canopy management
  - pruning
- impact of common impediments on grape growing:
  - frost
  - drought
  - pests (including phylloxera)
  - disease
  - nutrient deficiency
- major Australian wine regions, common wine styles and grape varieties
- basic purpose and principles of grape harvesting and wine production processes:
  - harvesting
  - crushing
  - fermentation
  - pressing
  - maturation
  - fining
  - filtering
- common bottling, labelling and packaging used for wine
- basic wine processing and storage equipment
- common marketing arrangements for wine, including cellar door sales, mail order, internet sales, distribution through agents or wholesalers
- basic features of domestic and export markets.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - a wine operations workplace or an environment that accurately represents workplace conditions
- resources, equipment and materials:
  - reference materials on the Australian wine industry
  - sample wine products and materials
- relationships:
  - clients or customers.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## FBPWIN2003 Conduct sensory evaluation of wine

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

### Application

This unit of competency describes the skills and knowledge required to complete a basic sensory evaluation of wine, including the provision of tasting arrangements, identifying wine styles, grape varieties and faults and communicating basic information about wine.

The unit applies to individuals who work across a range of sectors in the wine industry including cellar door sales. Individuals generally work under supervision but have some autonomy and accountability for their own work.

All work must be carried out to comply with workplace procedures, according to state/territory health and safety, and food safety regulations, legislation and standards that apply to the workplace.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

### Pre-requisite Unit

Nil

### Unit Sector

Wine Operations (WIN)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare tasting area and taste wine styles	1.1 Prepare tasting area and equipment to facilitate wine tasting according to health and safety in the workplace requirements and workplace procedures

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	1.2 Ensure that each wine style is presented and tasted under the most favourable conditions for evaluation 1.3 Taste wines in relevant quantities and in the most favourable order to show characters of each wine 1.4 Maintain tasting and work area according to workplace hygiene requirements
2. Identify key styles and grape varieties using sensory evaluation techniques	2.1 Follow correct tasting order and procedures using sight, smell and taste 2.2 Identify the key taste sensations according to industry practices 2.3 Explain the characteristics of the key wine styles and grape varieties with regard to sight, smell and taste 2.4 Evaluate and describe the quality and characteristics of the wine style 2.5 Ensure that evaluation conditions are as favourable as possible to minimise impact on outcomes
3. Identify basic wine faults	3.1 Assess the quality of wine using sensory evaluation techniques 3.2 Recognise and report common wine faults and taints according to workplace procedures
4. Communicate basic information about wine styles	4.1 Describe the characteristics of a range of basic wine styles 4.2 Explain the distinctions between similar wine styles 4.3 Respond to questions about wine styles according to workplace practices 4.4 State and explain key factors contributing to the style and flavour of wine

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
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Reading	<ul style="list-style-type: none"><li>Interpret workplace procedures and wine product information</li></ul>
Oral Communication	<ul style="list-style-type: none"><li>Use clear language to convey technical and specialised information about characteristics and types of wine</li></ul>
Navigate the world of work	<ul style="list-style-type: none"><li>Understand and apply workplace procedures and legislative responsibilities relevant to own role</li></ul>
Get the work done	<ul style="list-style-type: none"><li>Plan, organise and implement tasks required to complete wine tasting according to workplace requirements</li></ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPWIN2003 Conduct sensory evaluation of wine	FDFCD2003A Evaluate wines (standard)	Updated to meet Standards for Training Packages  Change to title and unit sector  Minor changes to Elements and Performance Criteria for clarity	Equivalent unit

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## Assessment Requirements for FBPWIN2003 Conduct sensory evaluation of wine

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

### Performance Evidence

An individual demonstrating competency must satisfy all of the elements and performance criteria in this unit.

There must be evidence that the individual has identified key wine styles and grape varieties using sensory evaluation techniques and has demonstrated the following on at least two separate occasions:

- accessed workplace information to determine wine evaluation requirements
- prepared tasting area and equipment required for wine tasting
- prepared wine products for tasting including opening bottles safely
- implemented appropriate conditions for tasting and maintained tasting environment
- poured tasting samples cleanly and in appropriate quantities
- tasted wine samples in most appropriate order
- evaluated wines in an appropriate manner for sight, smell and taste
- used sensory evaluation techniques to correctly identify wine styles, wine characteristics and faults
- verbally described a wine style and answered questions about wines tasted
- maintained work area to meet housekeeping requirements
- followed health and safety procedures for evaluating wine.

### Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- purpose and principles of sensory evaluation of wines
- quality characteristics of equipment and materials used in wine tasting
- characteristics of key wine styles and grape varieties
- factors affecting the outcomes of a tasting and optimum conditions required:
  - environment
  - taster

- glasses
- equipment
- wine preparation
- factors contributing to the order in which various wine styles should be tasted:
  - still versus sparkling
  - young versus old
  - dry versus sweet
  - non-oak versus oak
  - light in bodied versus full-bodied
  - white versus rosé versus red
  - lower alcohol versus higher alcohol
- wine sensory evaluation techniques and procedures, with reasoning:
  - handling of glass and swirling techniques
  - use of light and white background
  - visual appraisal
  - sniffing and nosing
  - tasting and spitting
  - key taste sensations
  - cleansing palate between tastings
- key wine features, how they vary and how they can be identified using tasting techniques:
  - wine and quality (taints and deposits)
  - sweetness
  - acidity
  - alcohol
  - flavour and aroma
  - tannin
  - body and weight
  - balance
  - length
  - texture
- key factors which affect the style and quality of wine:
  - climate
  - soil
  - grape variety
  - viticultural techniques
  - storage
  - vinification techniques
- basic wine faults and taints, features and causes:
  - oxidation-type faults
  - reductive wine faults



- additive-related faults
- common wine taints
- appropriate terminology for describing wine to customers and wine industry personnel
- interpretation of labels
- workplace procedures and responsibility for:
  - reporting problems
  - housekeeping
  - recording requirements
  - health and safety hazards and controls in the workplace.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - a workplace or an environment that accurately represents workplace conditions
- resources, equipment and materials:
  - wine and equipment for tasting and evaluating
- specifications:
  - work instructions and workplace procedures relating to wine tasting and evaluation
- relationships (internal and/or external):
  - customers or industry personnel to communicate with during wine tasting and evaluation.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## FBPWIN3001 Evaluate wines (advanced)

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

### Application

This unit of competency describes the skills and knowledge required to evaluate a broad range of wines and identify by grape variety, region and vintage. It includes identification of specialised wine faults, food and wine matching, and advice on serving and ageing.

The unit applies to individuals who work across a range of sectors in the wine industry including cellar door sales. Individuals work under broad direction and take responsibility for their own work.

All work must be carried out to comply with workplace procedures, according to state/territory health and safety, and food safety regulations, legislation and standards that apply to the workplace.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

### Pre-requisite Unit

Prerequisite unit of competency for this unit is:

- FBPWIN2003 Conduct sensory evaluation of wine

### Unit Sector

Wine Operations (WIN)

### Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Identify and evaluate specific wine	1.1 Use industry accepted tasting procedures including use of sight,

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
characteristics	smell and taste to evaluate wine characteristics 1.2 Identify and describe Australian wines in terms of grape varieties, regions and vintage 1.3 Identify and discuss specific winemaking techniques with customers and/or industry personnel 1.4 Apply sensory evaluation techniques to inspect and identify specialised wine faults and report to relevant workplace personnel 1.5 Complete quality evaluations of selected wines
2. Compare Australian styles with key world wines	2.1 Identify well known world wines in terms of style and quality 2.2 Identify and compare workplace wine products and styles with international products 2.3 Recommend appropriate workplace wines as alternatives to international wine styles and products where possible
3. Enhance consumer enjoyment of wine	3.1 Select and recommend appropriate workplace wines to match food choices 3.2 Specify optimum ageing and serving requirements for selected wines

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

Skill	Description
Reading	<ul style="list-style-type: none"> <li>Interpret wine product information about wine styles and characteristics from a variety sources</li> </ul>
Writing	<ul style="list-style-type: none"> <li>Record evaluations using industry-based vocabulary and conventions</li> </ul>
Oral Communication	<ul style="list-style-type: none"> <li>Provide information using language appropriate to audience</li> <li>Use active listening skills to respond to questions or feedback from participants</li> </ul>
Interact with others	<ul style="list-style-type: none"> <li>Use accepted practices and protocols for communicating with internal personnel and people external to the organisation</li> </ul>

Skill	Description
Get the work done	<ul style="list-style-type: none"><li>Analyse information about wines to decide on recommendations</li></ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPWIN3001 Evaluate wines (advanced)	FDFCD3001A Evaluate wines (advanced)	Updated to meet Standards for Training Packages  Minor changes to Elements and Performance Criteria for clarity  Unit sector changed	Equivalent unit

## Links

Companion Volume Implementation Guides are found in VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## Assessment Requirements for FBPWIN3001 Evaluate wines (advanced)

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

### Performance Evidence

An individual demonstrating competency must satisfy all of the elements and performance criteria in this unit.

There must be evidence that the individual has evaluated a broad range of wines identified by grape variety, region and vintage and has demonstrated the following on at least two separate occasions:

- explained the impact of tasting conditions on wine evaluation
- explained specific winemaking techniques and described their effect on wine characteristics
- followed tasting procedures to identify wine by style and quality
- identified specialised wine faults using sensory evaluation techniques
- provided advice about wine service and comparisons between international and local styles
- selected and matched wine to food choices
- explained optimum ageing, cellaring and serving conditions for wine styles
- followed health and safety procedures for evaluating wine.

### Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- features and purpose of wine sensory evaluation techniques
- features and causes of wine faults and taints, and preventative or corrective action
- factors influencing the order in which wine should be tasted
- product labelling terminology and meanings
- characteristics of wine that can be assessed to identify key features:
  - country of origin
  - region of production

- vintage
- winemaking and grape growing techniques
- quality
- common winemaking, grape growing techniques and how they can be utilised to manipulate wine style and characteristics
- key Australian and world wines and organisation or workplace products, including:
  - style and taste characteristics
  - price
  - quality
- serving and cellaring requirements of key world and Australian wines
- wine factors that determine cellaring and serving requirements, including balance of alcohol, tannin, acidity and fruit flavours
- factors that influence the matching of food and wine
- factors that detrimentally affect the quality of wine during cellaring:
  - temperature
  - humidity
  - ultraviolet (UV) light
  - vibrations.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - a workplace or an environment that accurately represents workplace conditions
- resources, equipment and materials:
  - wine and equipment for tasting and evaluating
- specifications:
  - product information and workplace procedures relating to wine tasting and evaluation (advanced)
- relationships (internal and/or external):
  - customers or industry personnel to communicate with during wine tasting and evaluation.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## FDFBP3002A Operate the labelling process

### Modification History

This unit supersedes and is equivalent to FDFBPLPB Operate the labelling process.

April 2012: Minor typographical corrections.

### Unit Descriptor

<b>Unit descriptor</b>	This unit covers the skills and knowledge required to set up, operate and shut down a range of semi-automated and automated equipment involved in the labelling process.
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### Application of the Unit

<b>Application of the unit</b>	This unit has application in a wine operations bottling and packing environment. It typically targets the worker responsible for applying basic operating principles to the operation and monitoring of a labelling process and associated equipment.
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### Licensing/Regulatory Information

Not applicable.

### Pre-Requisites

Not applicable.

### Employability Skills Information

<b>Employability skills</b>	This unit contains employability skills.
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## Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.

Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.

## Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Prepare to operate labelling equipment	1.1 Product and materials are confirmed and available to meet labelling requirements 1.2 Product and materials are prepared to meet labelling requirements 1.3 Services are confirmed as available and ready for operation 1.4 Equipment is prepared and checked to confirm readiness for use 1.5 Equipment is set to meet labelling requirements
2. Operate and monitor the labelling process	2.1 Labelling equipment is started up according to workplace procedures 2.2 Control points are monitored to confirm performance is maintained within specification 2.3 Bottles are labelled according to specification 2.4 Labelling equipment is monitored to confirm operating condition 2.5 Out-of-specification products, process and equipment performance is identified, rectified and/or reported
3. Shut down the labelling process	3.1 Labelling equipment is shut down according to workplace procedures 3.2 Labelling equipment is prepared for cleaning 3.3 Waste generated by both the process and cleaning procedures is collected, treated and disposed of, or recycled according to workplace procedures 3.4 Work is conducted in accordance with workplace environmental guidelines
4. Record information	4.1 Workplace information is recorded in appropriate format



## Required Skills and Knowledge

### REQUIRED SKILLS AND KNOWLEDGE

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This section describes the skills and knowledge required for this unit.

#### Required skills include:

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Note: The following required skills should be applied as appropriate to the equipment and processes that are used in the particular winery or workplace.

#### Ability to:

- access workplace information to identify labelling requirements
- select, fit and use appropriate personal protective clothing and/or equipment
- confirm supply of necessary materials and services. This may include:
  - checking labelling materials meet workplace specifications
  - checking bottles meet size and type specification and quality and hygiene standards
  - confirming compressed air, water and power are available to equipment
- liaise with other work areas, which may include:
  - maintenance personnel
  - quality assurance personnel
  - materials supply
  - bottle supply operators
  - bottle filling operators
  - bottle sealing operators
  - bottle capsuling operators
  - administration or marketing
- prepare product and materials. This may include:
  - heating glue to correct temperature
  - checking glue meets specification according to label type
  - confirming dryness of bottles in readiness for labels
  - check labels meet specification of product eg alcohol content
  - inserting labels, correctly orientated in magazine
  - feeding label web through application mechanism
- confirm equipment status and condition. This may include completing a test run and checking:
  - alignment of bottle feed screws and stars
  - alignment of label pick up and application components
  - out-feed components are aligned correctly and will not damage label
  - label alignment, orientation and height meet specifications
  - timing and alignment of web feed and bottle feed
  - any related coders are correctly set up and operational

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## REQUIRED SKILLS AND KNOWLEDGE

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- set up and start up the process
- monitor the process and equipment operation to identify out-of-specification results or non-compliance. This can involve monitoring:
  - label adhesion
  - label orientation
  - label damage
  - label positioning
  - smooth versus bubbled labels
  - misprinted labels
  - any label or bottle coding applied as part of the process
- monitor supply and flow of materials to and from the process
- take corrective action in response to out-of-specification results or non-compliance
- report and/or record corrective action as instructed
- sort, collect, treat, recycle or dispose of waste
- shut down equipment in response to an emergency situation
- shut down equipment in response to routine shutdown requirements. This may include removing product or consumables from the line
- prepare equipment for cleaning. This may involve draining and/or dismantling equipment, and removing waste either manually or by rinsing, in preparation for cleaning and sanitation
- record workplace information
- maintain work area to meet housekeeping standards
- clean and sanitise equipment according to enterprise procedures
- take samples according to enterprise procedures
- conduct tests according to enterprise procedures
- carry out routine maintenance according to enterprise procedures
- identify, rectify and/or report environmental non-compliance according to enterprise procedures
- use oral communication skills/language to fulfil the job role as specified by the organisation, including questioning, active listening, asking for clarification and seeking advice from supervisor
- work cooperatively within a culturally diverse workforce

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### Required knowledge includes:

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Note: The following required knowledge should be applied as appropriate to the equipment and processes that are used in the particular winery or workplace.

#### ***Knowledge of:***

- purpose and principles of labelling equipment
- key features of labelling equipment and components

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## REQUIRED SKILLS AND KNOWLEDGE

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- links to related processes
- stages and changes which occur during the process
- effect of process stages on end product
- quality characteristics of end product
- product and materials preparation requirements and effect of variation on the process. This may include effect on end results of:
  - glue temperature
  - glue type
  - wet bottles
  - faulty label feed
  - incorrect or inaccurate labels
- emergency and troubleshooting procedures
- process specification, procedures and operating parameters
- equipment and instrumentation components, purpose and operation
- basic operating principles of process control systems where relevant
- services required
- significance and method of monitoring control points within the process
- common causes of variation and corrective action required
- routine maintenance requirements
- Occupational Health and Safety (OHS) hazards and controls
- lock-out and tag-out procedures
- procedures and responsibility for reporting problems
- environmental issues and controls
- shutdown sequence
- shutdown and cleaning requirements associated with changeovers and types of shutdown
- waste handling requirements and procedures
- recording requirements and procedures
- cleaning and sanitation procedures where relevant
- sampling procedures where relevant
- testing procedures where relevant
- routine maintenance procedures where relevant

## Evidence Guide

### EVIDENCE GUIDE

The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.

Overview of assessment	Assessment must be carried out in a manner that recognises the cultural and literacy requirements of the assessee and is appropriate to the work performed. Competence in this unit must be achieved in accordance with food safety standards and regulations.
Critical aspects for assessment and evidence required to demonstrate competency in this unit	<p>Evidence of ability to:</p> <ul style="list-style-type: none"> <li>• conduct pre-start checks on machinery used for labelling</li> <li>• start, operate, monitor and adjust process equipment to achieve required quality outcomes</li> <li>• take corrective action in response to typical faults and inconsistencies</li> <li>• complete workplace records as required</li> <li>• apply safe work practices and identify OHS hazards and controls</li> <li>• safely shut down equipment.</li> </ul>
Context of and specific resources for assessment	<p>Assessment must occur in a real or simulated workplace where the assessee has access to:</p> <ul style="list-style-type: none"> <li>• personal protective clothing and equipment as required</li> <li>• work procedures, including advice on company practices, safe work practices, food safety, quality and environmental requirements</li> <li>• instructions, information, specifications and schedules as required</li> <li>• equipment, services and corresponding information as required</li> <li>• products and materials as required</li> <li>• internal and external customers and suppliers as required</li> <li>• cleaning procedures, materials and equipment as required</li> <li>• documentation and recording requirements and procedures.</li> </ul>
Method of assessment	This unit should be assessed together with other units of

<b>EVIDENCE GUIDE</b>	
	competency relevant to the function or work role.
Guidance information for assessment	To ensure consistency in one's performance, competence should be demonstrated on more than one occasion over a period of time in order to cover a variety of circumstances, cases and responsibilities, and where possible, over a number of assessment activities.

## Range Statement

<b>RANGE STATEMENT</b>	
<p>The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.</p>	
<b>Policies and procedures</b>	Work is carried out in accordance with workplace procedures, licensing requirements and legislative requirements
<b>Workplace information</b>	<p>Workplace information can include:</p> <ul style="list-style-type: none"> <li>• Standard Operating Procedures (SOPs)</li> <li>• specifications</li> <li>• production schedules or instructions</li> <li>• work notes</li> <li>• Material Safety Data Sheets (MSDS)</li> <li>• manufacturer instructions</li> <li>• verbal direction from manager, supervisor or senior operator</li> </ul>
<b>Equipment</b>	<p>Equipment may include:</p> <ul style="list-style-type: none"> <li>• wet gum labellers</li> <li>• pressure sensitive labellers</li> <li>• neck taggers</li> </ul>
<b>Product and materials</b>	<p>Product and materials include:</p> <ul style="list-style-type: none"> <li>• filled bottles</li> <li>• labels</li> <li>• glue</li> </ul>

<b>RANGE STATEMENT</b>	
	<ul style="list-style-type: none"> <li>• neck ties</li> <li>• additional promotional dress</li> </ul>
<b>Equipment status</b>	<p>Confirming equipment status involves:</p> <ul style="list-style-type: none"> <li>• checking that hygiene and sanitation standards, safety standards and pre-start requirements are met and that equipment is operational</li> <li>• checking operation or calibration of measuring instrumentation</li> </ul>
<b>Services</b>	<p>Services may include:</p> <ul style="list-style-type: none"> <li>• power</li> <li>• compressed air</li> <li>• water</li> </ul>
<b>Monitoring the process</b>	<p>Monitoring the process may involve:</p> <ul style="list-style-type: none"> <li>• the use of production data, such as performance control charts</li> </ul>
<b>Process operation and monitoring functions</b>	<p>Process operation and monitoring functions may be:</p> <ul style="list-style-type: none"> <li>• manual or involve the use of a process control system</li> </ul>
<b>Control points</b>	<p>Control points refer to those key points in a work process that must be monitored and controlled. These include:</p> <ul style="list-style-type: none"> <li>• food safety (critical)</li> <li>• quality and regulatory control points</li> <li>• inspection points</li> </ul>
<b>Information systems</b>	<p>Information systems may be:</p> <ul style="list-style-type: none"> <li>• print or screen based</li> </ul>

## Unit Sector(s)

<b>Unit sector</b>	Wine operations
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## Custom Content Section

Not applicable.

## FDFFS2001A Implement the food safety program and procedures

### Modification History

Not applicable.

### Unit Descriptor

<b>Unit descriptor</b>	This unit of competency covers the skills and knowledge required to maintain personal hygiene and conduct food handling, housekeeping and waste disposal related to work tasks and responsibilities where work involves operation of production and/or packaging equipment and processes.
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### Application of the Unit

<b>Application of the unit</b>	<p>This unit is based on and equivalent to the guideline food safety unit GFSMFSRA Apply and monitor food safety requirements.</p> <p>Note that this unit does not apply to the pharmaceutical industry. Refer to FDFPH2001A Apply Good Manufacturing Practice procedures.</p>
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### Licensing/Regulatory Information

Not applicable.

### Pre-Requisites

<b>Prerequisite units</b>		

## Employability Skills Information

<b>Employability skills</b>	This unit contains employability skills.
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## Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.	Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.
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## Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Implement the food safety program	1.1. Food handling requirements are identified 1.2. Food handling is carried out according to the food safety program 1.3. Food safety hazards are controlled as required by the food safety program 1.4. Where food safety control requirements are not met, the incident is promptly reported and corrective action is taken 1.5. Food safety information is recorded to meet requirements of the food safety program 1.6. The workplace is maintained in a clean and tidy order to meet workplace standards 1.7. Work is conducted in accordance with workplace environmental guidelines
2. Participate in maintaining and improving food safety	2.1. Work area, materials, equipment and product are routinely monitored to ensure compliance with food safety requirements 2.2. Processes, practices or conditions which could result in a food safety breach are identified and reported according to workplace reporting requirements 2.3. Corrective action is taken in accordance with the food safety program 2.4. Food safety issues are raised with designated



ELEMENT	PERFORMANCE CRITERIA
	personnel
3. Comply with personal hygiene standards	<p>3.1. Personal hygiene meets the requirements of the food safety program</p> <p>3.2. Health conditions and/or illness are reported as required by the food safety program</p> <p>3.3. Clothing and footwear worn is appropriate for the food handling task and meets the requirements of the food safety program</p> <p>3.4. Movement around the workplace complies with the food safety program</p>

## Required Skills and Knowledge

### REQUIRED SKILLS AND KNOWLEDGE

This section describes the skills and knowledge required for this unit.

#### Required skills

##### *Ability to:*

- locate and follow workplace information relating to food safety responsibilities
- follow workplace procedures to maintain food safety as required by the food safety program relating to own work
- monitor food safety hazards as required by the food safety program, including methods such as visual inspection, sampling and testing
- record results of monitoring, and maintain records as required by the food safety program
- identify and report situations that do not meet the requirements of the food safety program and/or could result in unsafe food
- take corrective action as required by food safety program within level of responsibility
- handle, clean and store equipment, utensils, packaging materials and similar items according to the requirements of the food safety program as required by work role
- maintain personal hygiene consistent with the food safety program
- take necessary precautions when moving around the workplace and/or from one task to another to maintain food safety
- wear and maintain appropriate clothing/footwear as required by work tasks and consistent with the requirements of the food safety program
- report health conditions and illness as appropriate according to the food safety program
- handle and dispose of out-of-specification or contaminated food, waste and

recyclable material according to food safety program as this requirement relates to own work responsibility

- maintain the work area in a clean and tidy state
- identify and report signs of pest infestation
- record food safety information in appropriate format
- clean and sanitise equipment according to enterprise procedures
- collect samples and conduct tests according to the food safety program according to enterprise procedures
- participate in investigating food safety breaches according to enterprise procedures
- use oral communication skills/language competence to fulfil the job role as specified by the organisation, including questioning, active listening, asking for clarification and seeking advice from supervisor
- work cooperatively within a culturally diverse workforce

### **Required knowledge**

#### ***Knowledge of:***

- sources of information and expertise on procedures and responsibilities for food safety relating to own work
- basic concepts of HACCP-based food safety, including identification of hazards that are likely to occur, establishing appropriate methods of control and confirming that controls are met
- food safety management arrangements in the workplace, including awareness of food safety legislation, workplace policies and procedures to implement responsibilities, understanding the relationship between the quality system and food safety program, personnel responsible for developing and implementing the food safety program, the role of internal and external auditors as appropriate, procedures followed to investigate contamination events, and performance improvement processes
- awareness of common microbiological, physical and chemical hazards related to the foods handled in the work area, including the types of hazards likely to occur, the conditions under which they occur, possible consequences and control methods to prevent occurrence
- basic understanding of the properties, handling and storage requirements of ingredients, materials and products handled and used
- suitable standard for materials, measuring devices, equipment and utensils used in the work area
- food safety requirements related to work responsibilities, including personal hygiene, requirements and procedures to report illness and safe food handling practices for own work
- methods used to monitor that food safety is under control, including the purpose of sampling and taking measurements, such as temperature and pH, and conducting inspections and tests
- action required in the event of non-compliance (corrective action is typically described in the food safety program and/or related workplace information)
- purpose of keeping records and the recording requirements of the food safety

program

- methods used in the workplace to isolate or quarantine food which may be unsafe
- product and ingredient traceability procedures, such as product recall where required by work responsibilities
- clothing and footwear requirements for working in and/or moving between food handling areas
- personal clothing maintenance, laundering and storage requirements
- appropriate bandages and dressings to be used when undertaking food handling
- housekeeping requirements and responsibilities relating to own work, and use and storage of housekeeping/cleaning equipment where relevant
- procedures to follow in the event of pest sighting or discovery of infestation
- purpose and importance of cleaning and sanitation procedures
- waste collection, recycling and handling procedures relevant to own work responsibilities
- cleaning and sanitation procedures where relevant
- impact of rework handling/addition on food safety where relevant
- sampling and test methods where relevant

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## Evidence Guide

### EVIDENCE GUIDE

The Evidence Guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.

#### Overview of assessment

Assessment must be carried out in a manner that recognises the cultural and literacy requirements of the assessee and is appropriate to the work performed. Competence in this unit must be achieved in accordance with food safety standards and regulations.

#### Critical aspects for assessment and evidence required to demonstrate competency in this unit

Evidence of ability to:

- identify own responsibilities with regard to food safety
- identify food safety risks in the workplace and the control measures used to manage them
- apply control measures in own work
- monitor compliance with food safety standards
- identify and act on non-compliances and participate in improving safety
- maintain required standards of personal hygiene
- complete workplace records as required

<b>EVIDENCE GUIDE</b>	
	<ul style="list-style-type: none"> <li>• apply safe work practices and identify OHS hazards and controls</li> <li>• apply food safety procedures.</li> </ul>
<b>Context of and specific resources for assessment</b>	<p>Assessment must occur in a real or simulated workplace where the assessee has access to:</p> <ul style="list-style-type: none"> <li>• food safety information relating to the workplace, including a food safety program outlining food safety hazards and control methods. It may also include company policies, procedures and codes of practice, such as: <ul style="list-style-type: none"> <li>• Good Manufacturing Practice (GMP)</li> <li>• related work instructions and procedures</li> <li>• work tasks and responsibilities</li> <li>• appropriate clothing and related apparatus</li> <li>• reporting and monitoring systems</li> <li>• cleaning and sanitation policies and procedures as required</li> <li>• sampling and test procedures and related equipment as required.</li> </ul> </li> </ul>
<b>Method of assessment</b>	<p>This unit should be assessed together with other units of competence relevant to the function or work role. Examples could be:</p> <ul style="list-style-type: none"> <li>• FDFOP2004A Clean and sanitise equipment</li> <li>• FDFOP2013A Apply sampling procedures</li> <li>• FDFOP2063A Apply quality systems and procedures</li> <li>• MSL973001A Perform basic tests.</li> </ul>
<b>Guidance information for assessment</b>	<p>To ensure consistency in one's performance, competency should be demonstrated on more than one occasion over a period of time in order to cover a variety of circumstances, cases and responsibilities, and where possible, over a number of assessment activities.</p>

## Range Statement

### RANGE STATEMENT

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised

<b>RANGE STATEMENT</b>	
wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.	
<b>A food safety program</b>	A food safety program is a written document that specifies how a business will control all food safety hazards that may be reasonably expected to occur in all food handling operations of the food business. The food safety program and related procedures must comply with legal requirements of the food safety standards and must be communicated to all food handlers. Where no food safety program is in place, food safety requirements may be specified in general operating procedures
<b>Workplace information</b>	Workplace information may be provided in: <ul style="list-style-type: none"> <li>• food safety program</li> <li>• standard operating procedures (SOPs)</li> <li>• specifications</li> <li>• log sheets</li> <li>• written or verbal instruction</li> </ul>
<b>Food handling</b>	Food handling refers to: <ul style="list-style-type: none"> <li>• food receipt and storage</li> <li>• food preparation</li> <li>• cooking, holding, cooling, chilling and reheating</li> <li>• packaging, disposal</li> </ul>
<b>Products/materials handled and stored</b>	Products/materials handled and stored can include: <ul style="list-style-type: none"> <li>• raw materials</li> <li>• ingredients</li> <li>• consumables</li> <li>• part-processed product</li> <li>• finished product</li> <li>• cleaning materials</li> </ul>
<b>Examples of a breach of food safety procedures</b>	Examples of a breach of food safety procedures could include: <ul style="list-style-type: none"> <li>• failure to check delivery temperatures of potentially hazardous chilled food</li> </ul>

<b>RANGE STATEMENT</b>	
	<ul style="list-style-type: none"> <li>• failure to place temperature-sensitive food in temperature controlled storage conditions promptly</li> <li>• failure to wash hands when required</li> <li>• use of cloths for unsuitable purposes</li> </ul>
<b>Responsibility for monitoring food safety</b>	Responsibility for monitoring food safety, identifying breaches in food safety procedures and taking corrective action relates to own tasks and responsibilities and occurs in the context of the food safety program in the workplace
<b>Monitoring</b>	<p>Monitoring describes the methods used to confirm that a food safety hazard is in control, such as:</p> <ul style="list-style-type: none"> <li>• taking temperatures</li> <li>• collecting samples</li> <li>• conducting visual inspections</li> <li>• conducting other tests as required</li> </ul>
<b>Food safety hazard</b>	A food safety hazard is a biological, chemical or physical agent in, or condition of, food that has the potential to cause an adverse health effect
<b>Hygiene requirements</b>	Minimum personal hygiene requirements are specified by the food safety program. At a minimum this must meet legal requirements as set out in the Food Safety Standard 3.2.2, Division 4:14 and/or state or territory legislation/regulations
<b>Reporting of health conditions and illnesses requirements</b>	Reporting of health conditions and illnesses requirements are specified by the food safety program. At a minimum this must meet legal requirements as set out in Food Safety Standard 3.2.2, Division 4:13 and/or state or territory legislation/regulations
<b>Appropriate clothing and footwear</b>	<p>Appropriate clothing and footwear depends on work requirements. It should be designed to ensure that the body and clothing itself does not contaminate food or surfaces likely to come into contact with food. Examples of clothing designed to prevent contamination by the body include:</p> <ul style="list-style-type: none"> <li>• purpose designed overalls or uniforms</li> <li>• hair-nets</li> </ul>

**RANGE STATEMENT**

	<ul style="list-style-type: none"><li>• beard snoods</li><li>• gloves</li><li>• overshoes</li></ul>
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**Unit Sector(s)**

<b>Unit sector</b>	Food safety
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**Competency field**

<b>Competency field</b>	
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**Co-requisite units**

<b>Co-requisite units</b>		

# FDFFS3001A Monitor the implementation of quality and food safety programs

## Modification History

November 2011: minor typographical error corrected.

## Unit Descriptor

<b>Unit descriptor</b>	This unit of competency covers the skills and knowledge required to provide a leadership role in supporting day-to-day implementation of the food safety/quality programs in a work area. It also involves supporting others to implement the requirements of the food safety/quality procedures.
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## Application of the Unit

<b>Application of the unit</b>	<p>This unit applies to those with formal responsibility for others, and to those required to model workplace policies and procedures but who have no formal management role.</p> <p>This unit is based on and equivalent to the guideline food safety unit GFSOFSA Oversee the day-to-day implementation of food safety in the workplace.</p> <p>Note that this unit does not apply to the pharmaceutical industry. Refer to FDFPH3001A Monitor and maintain Good Manufacturing Practice procedures.</p>
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## Licensing/Regulatory Information

Not applicable.

## Pre-Requisites

<b>Prerequisite units</b>	
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<b>Prerequisite units</b>		
	FDFFS2001A	Implement the food safety program and procedures

## Employability Skills Information

<b>Employability skills</b>	This unit contains employability skills.
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## Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.	Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.
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## Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Ensure others in the work area are able to meet quality and food safety requirements	<p>1.1.Hazard control and clothing and equipment appropriate to work requirements are available, functional and correctly fitted</p> <p>1.2.Information on food safety/quality responsibilities and procedures is current, accessible and communicated to others in the work area</p> <p>1.3.Information about identified hazards and the outcomes of risk assessment and risk control procedures is accessible and communicated to others in the work area</p> <p>1.4.Food safety/quality hazards and control measures used in the work area can be identified by those in the work area</p> <p>1.5.Mentoring and coaching support is available to support individuals/groups to implement quality and</p>

ELEMENT	PERFORMANCE CRITERIA
	<p>safe food handling procedures</p> <p>1.6.Training needs are identified and addressed within level of responsibility</p>
<p>2. Monitor observance of quality standards and food safety programs in the work area</p>	<p>2.1.Work procedures in the work area are clearly defined, documented and followed</p> <p>2.2.Deviation from identified procedures is identified, reported and addressed within level of responsibility</p> <p>2.3.Personal behaviour is consistent with workplace policies and procedures that support food safety and quality</p> <p>2.4.Food safety and/or quality hazards are identified and reported according to workplace procedures</p> <p>2.5.Food safety and quality information is recorded to meet workplace reporting requirements</p> <p>2.6.The work area is maintained according to housekeeping standards</p> <p>2.7.Work is conducted in accordance with workplace environmental guidelines</p>
<p>3. Take corrective action in response to quality and food safety non-compliance</p>	<p>3.1.Workplace procedures for responding to quality and food safety non-compliance are promptly implemented</p> <p>3.2.Hazardous events are investigated to identify cause</p> <p>3.3.Control measures to prevent recurrence and minimise risks of hazardous events are implemented</p>
<p>4. Maintain and improve quality and food safety in the work area</p>	<p>4.1.Processes or conditions which could result in a breach of food safety procedures or quality specifications are identified, assessed, removed or and/reported within level of responsibility and according to workplace procedure</p> <p>4.2.Risk assessments are conducted and appropriate control measures are identified and implemented in the work area</p> <p>4.3.Recommendations arising from risk assessments are implemented within level of responsibility</p> <p>4.4.Inadequacies in control measures are identified and reported according to company reporting requirements</p> <p>4.5.Matters raised relating to quality/food safety are promptly resolved and/or referred to appropriate personnel</p> <p>4.6.The work group is consulted and advised of</p>

ELEMENT	PERFORMANCE CRITERIA
	<p>quality/food safety matters relevant to work role</p> <p>4.7. Opportunities for improving food safety and quality are identified and raised with relevant personnel</p> <p>4.8. Procedures are developed or revised to support effective control of quality and food safety hazards</p> <p>4.9. Quality/food safety records are reviewed to ensure they are complete and meet the quality system, food safety program and legal requirements</p>

## Required Skills and Knowledge

### REQUIRED SKILLS AND KNOWLEDGE

This section describes the skills and knowledge required for this unit.

#### Required skills

##### *Ability to:*

- access, interpret and communicate information about the food safety program, quality requirements and related procedures to others in the work area
- demonstrate two-way communication, including active listening and responding constructively to feedback
- provide access to and maintain current food safety/quality documentation
- model safe food handling and quality practices and procedures to achieve required outcomes, including demonstrating:
  - work procedures that meet the requirements of quality and food safety
  - cleaning and sanitising equipment
  - sampling and testing as appropriate according to quality and food safety requirements
  - maintaining personal hygiene
  - wearing appropriate clothing and footwear as required by the work task
  - following procedures when moving within and between work areas
  - reporting health conditions and illnesses according to workplace procedures
  - handling, cleaning and storing equipment, utensils and packaging materials as appropriate
- identify control points in the work area and demonstrate monitoring techniques used (control points include critical, quality and regulatory control points)
- support others to meet quality standards and follow food safety procedures by ensuring that all personnel in the work area receive the information required and have the necessary skills and equipment to carry out their responsibilities

## REQUIRED SKILLS AND KNOWLEDGE

- identify, report and/or address food safety/quality non-compliance in an appropriate and timely manner within level of responsibility
- determine when and how to make adjustments to maintain output within level of responsibility
- identify, report and/or address food safety/quality training and development needs of others in the work area
- ensure that appropriate and timely action is taken in response to non-compliance
- handle and dispose of out-of-specification or contaminated food, waste and recyclable material according to food safety program as this requirement relates to own work responsibility
- participate in investigations of non-compliance and risk assessment processes
- participate in consultation processes to improve quality and food safety outcomes in the workplace
- review practice and procedures to implement recommendations arising from risk assessments and/or improvement proposals within level of responsibility, such as collecting and analysing food safety/quality records, reviewing operating procedures and communicating changes to others in the work area
- ensure that housekeeping standards are maintained and that equipment is in operational order, such as participating in the management of equipment calibration
- monitor the recording of quality and food safety information to confirm that records accurately reflect performance and meet the requirements of the food safety and quality programs
- participate in food recall procedures as required, within level of responsibility
- facilitate consultation processes according to enterprise procedures
- lead investigations of quality and food safety incidents according to enterprise procedures
- work cooperatively within a culturally diverse workforce

### Required knowledge

#### *Knowledge of:*

- sources of information and expertise on procedures and responsibilities for food safety relevant to the workplace
- principles of a HACCP-based approach to managing food safety, including identifying hazards that are likely to occur, establishing appropriate methods of control and confirming that controls are met
- basic concepts of quality assurance including hazards, risk assessment and control methods
- company programs and systems in place to manage and support quality and food safety in the workplace, which may involve separate or integrated programs, including systems for maintaining and updating documents, such as operating procedures and specifications
- clothing and footwear requirements for working in and/or moving between food

## REQUIRED SKILLS AND KNOWLEDGE

handling areas, including personal clothing maintenance, laundering and storage requirements

- appropriate bandages and dressings to be used when undertaking food handling
- housekeeping requirements and responsibilities relating to own work, where relevant this includes use and storage of housekeeping/cleaning equipment
- procedures to follow in the event of pest sighting or discovery of infestation
- purpose and importance of cleaning and sanitation procedures
- legal obligations for food safety and quality, including an awareness of government legislation and customer requirements
- food safety and quality responsibilities and requirements relating to the work area
- awareness of common micro biological, physical and chemical hazards related to the foods handled in the work area, including the types of hazards likely to occur, the conditions under which they occur, possible consequences and control methods to prevent occurrence
- suitable standard for materials, measuring devices, equipment and utensils used in the work area
- properties of food and ingredients used that affect food safety, including an understanding of related storage, processing and handling requirements
- current technical and process knowledge required to participate in investigations of food safety/quality hazards, risks and incidents within level of responsibility, including an understanding of common micro biological, physical and chemical hazards, related control methods and the way changes in equipment and/or processing methods can affect food safety and quality outcomes
- procedures for identifying unsafe and/or non-conforming product, including control points and evidence of out-of-specification product or materials
- sampling procedures, test methods and inspections
- options for responding to non-compliance, including legal responsibility, risk management and cost/implications of different responses and level of responsibility for decision making
- methods used in the workplace to isolate or quarantine food which may be unsafe
- waste collection, recycling, handling and disposal, including handling/disposal requirements for different types of waste, such as hazardous waste where relevant
- traceability and recall procedures within level of responsibility
- documentation system and procedures, including record keeping to meet both company and legal requirements, procedures for developing and/or reviewing workplace procedures, and document control systems used in the workplace
- auditing arrangements, roles and responsibilities as they relate to own work responsibilities, such as internal and external audit processes
- appropriate communication skills and techniques to convey information on quality and food safety requirements to others in the workplace
- cleaning and sanitation procedures where relevant
- impact of rework handling/addition on food safety where relevant
- sampling and test methods where relevant

**REQUIRED SKILLS AND KNOWLEDGE**

- facilitation and consultation techniques where relevant

**Evidence Guide****EVIDENCE GUIDE**

The Evidence Guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.

**Overview of assessment**

Assessment must be carried out in a manner that recognises the cultural and literacy requirements of the assessee and is appropriate to the work performed. Competence in this unit must be achieved in accordance with food safety standards and regulations.

**Critical aspects for assessment and evidence required to demonstrate competency in this unit**

Evidence of ability to:

- describe quality and food safety program, risks and control measures of the work area
- confirm that control measures are in place and that personnel in the work area are equipped and informed to implement programs
- identify, address and follow up on non-compliances
- identify causes of non compliances
- conduct risk assessments and recommend responsive action
- provide support to others to implement the programs
- complete and maintain documentation.

**Context of and specific resources for assessment**

Assessment must occur in a real or simulated workplace where the assessee has access to:

- food safety program for the work area which identifies critical control points, control measures and corrective action
- quality policy, system and procedures
- work area or system in which quality and food safety practices and procedures are to be monitored
- personal protective clothing and equipment as required
- review/audit arrangements
- reporting and monitoring systems.

<b>EVIDENCE GUIDE</b>	
<b>Method of assessment</b>	<p>This unit should be assessed together with other units of competence relevant to the function or work role. Examples could be:</p> <ul style="list-style-type: none"> <li>• FDFPPL3001A Participate in improvement processes</li> <li>• FDFPPL3004A Lead work teams and groups</li> <li>• BSBRES401A Analyse and present research information.</li> </ul>
<b>Guidance information for assessment</b>	<p>To ensure consistency in one's performance, competency should be demonstrated on more than one occasion over a period of time in order to cover a variety of circumstances, cases and responsibilities, and where possible, over a number of assessment activities.</p>

## Range Statement

<b>RANGE STATEMENT</b>	
<p>The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.</p>	
<b>Work responsibilities</b>	<p>Work responsibilities may include formal or informal responsibility for modelling appropriate quality/food safety policies and procedures and providing a support role to others in the work area</p>
<b>Food safety program</b>	<p>A food safety program is a written document that specifies how a business will control all food safety hazards that may be reasonably expected to occur in all food handling operations of the food business. The food safety program and related procedures must comply with legal requirements of the food safety standards and must be communicated to all food handlers. Where no food safety program is in place, food safety requirements may be specified in general operating procedures</p>

<b>RANGE STATEMENT</b>	
<b>Quality systems</b>	Quality systems may be externally accredited, such as an ISO system, or internally designed and managed
<b>Workplace information</b>	<p>Workplace information may be provided in:</p> <ul style="list-style-type: none"> <li>• food safety and quality policies and programs</li> <li>• standard operating procedures (SOPs)</li> <li>• specifications</li> <li>• log sheets</li> <li>• written or verbal instruction incorporating food safety and quality requirements</li> </ul>
<b>Incidents</b>	<p>A food safety incident is:</p> <ul style="list-style-type: none"> <li>• a situation where the safe limits or parameters identified by the food safety program are not met</li> </ul> <p>A quality incident is:</p> <ul style="list-style-type: none"> <li>• a situation where the quality limits or parameters identified in specifications or processing instructions are not met</li> </ul>
<b>Monitoring</b>	<p>Monitoring describes the methods used to confirm that a food safety or quality hazard is in control, such as:</p> <ul style="list-style-type: none"> <li>• taking temperatures</li> <li>• collecting samples</li> <li>• conducting visual inspections</li> <li>• additional testing as required</li> </ul>
<b>Responsibility for identifying breaches of food safety procedures</b>	Responsibility for identifying breaches of food safety procedures and taking corrective action occurs in the context of the food safety program and within scope of responsibility
<b>Responsibility for identifying non-compliance against quality standards</b>	Responsibility for identifying non-compliance against quality standards occurs within the context of defined standards or specifications and relates to work area
<b>Personal hygiene requirements</b>	Minimum personal hygiene requirements are specified by the food safety program. At a minimum this must meet legal requirements as set out in the Food Safety Standard 3.2.2, Division 4:14 and/or state or territory



<b>RANGE STATEMENT</b>	
	legislation/regulations
<b>Reporting of health conditions and illnesses</b>	Reporting of health conditions and illnesses requirements are specified by the food safety program. At a minimum this must meet legal requirements as set out in Food Safety Standard 3.2.2, Division 4:13 and/or state or territory legislation/regulations
<b>Operator responsibilities</b>	<p>The operator at this level may not have direct responsibility for overseeing the training/development of team members. At a minimum they must be able to identify development needs of others in the work area and refer this information to the relevant personnel.</p> <p>The operator at this level may not have responsibility for independently assessing risks and determining the effectiveness of control measures. However, they would be expected to observe day-to-day effectiveness and participate in assessment and review processes. Responsibilities at this level may include facilitating consultation processes within level of responsibility</p>
<b>Record keeping</b>	Record keeping complies with customer, legal and food safety program requirements

## Unit Sector(s)

<b>Unit sector</b>	Food safety
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## Competency field

<b>Competency field</b>	
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## Co-requisite units

Co-requisite units		

# **FDFFS4001A Supervise and maintain a food safety plan**

## **Modification History**

April 2012: Minor typographical corrections.

## **Unit Descriptor**

This unit of competency covers the skills and knowledge required to maintain and implement a hazard analysis critical control point (HACCP)-based food safety plan. It includes the ability to monitor the implementation of a food safety plan, to revise, verify and validate the system, and to respond to audit findings for the system.

## **Application of the Unit**

Food safety is critical to public health and safety and the successful operation of food processing businesses. This unit is suitable for managers, supervisors and team leaders in food processing establishments who are responsible for maintaining the food safety plan or system in a designated work area.

## **Licensing/Regulatory Information**

Not applicable.

## **Pre-Requisites**

Not applicable.

## **Employability Skills Information**

This unit contains employability skills.

## **Elements and Performance Criteria Pre-Content**

Elements describe the essential outcomes of a unit of competency.

Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.

## Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Review the existing food safety plan	1.1 Data and results from HACCP records are collected to verify the food safety system 1.2 Major and minor non-conformances to the HACCP plan are identified 1.3 Critical control points are monitored to confirm performance 1.4 Problem areas are analysed using appropriate quality improvement tools and techniques 1.5 Corrective actions and strategies are suggested to prevent recurrence of the problem 1.6 Required amendments to the HACCP plan are documented 1.7 Recommendations are reported and presented to appropriate personnel
2. Communicate the requirements of the food safety plan	2.1 Food safety principles, food safety procedures and requirements, including regulatory requirements, are explained to the team 2.2 Commitment to, and responsibility for, food safety is developed through work team communication 2.3 Procedures to support the food safety plan are defined, documented and put in place 2.4 Training and mentoring is provided to the team to assist implementation
3. Monitor the implementation of the food safety plan	3.1 Team implementation of the food safety plan is monitored 3.2 Personal behaviour, including hygiene, housekeeping and use of clothing and equipment, is monitored and corrected, where necessary 3.3 Records and reports are completed accurately and on schedule 3.4 Prompt action is taken to correct non-conformance according to enterprise and regulatory requirements 3.5 Causes of non-conformance are identified and analysed 3.6 Control measures are implemented to prevent future non-conformance 3.7 Non-conformance is reported according to enterprise requirements
4. Maintain the food safety plan	4.1 Feedback is sought from all personnel to identify potential hazards, corrective actions and controls 4.2 Processes or conditions which could result in breaches of food safety procedures are identified and preventive or corrective action is taken 4.3 Corrective action and control procedures are updated to improve food safety

ELEMENT	PERFORMANCE CRITERIA
	4.4 Documentation is completed according to enterprise and regulatory requirements

## Required Skills and Knowledge

This section describes the skills and knowledge required for this unit.

### Required skills include:

#### Ability to:

- collect, monitor and interpret data to identify trends and non-conformance
- communicate with a range of stakeholders, including customers, to convey food safety requirements and programs
- demonstrate current technical and process knowledge for the control of hazards and improvement of the food safety system
- demonstrate enterprise monitoring procedures, including sampling, testing and required records and documents, and explain their purpose
- determine and take corrective action where food safety is potentially compromised
- communicate food safety requirements to the team
- facilitate food safety risk assessment procedures
- apply HACCP principles in leading the process for developing a food safety plan
- communicate the regulatory requirements that apply to the enterprise's food safety plan
- develop enterprise standard operating procedures (SOPs) and communicate their role in the food safety system
- review operations and practices for food safety improvement
- lead personnel/team in investigation of food safety incidents and potential incidents
- maintain currency of knowledge through independent research or professional development
- monitor records and documentation for accuracy and conformance
- respond to food safety incidents and implement food recall procedures, as required
- review communication systems (spoken and written) to minimise the potential for misreporting and misunderstanding of food safety requirements, procedures and plans
- take action to improve own work practice as a result of self-evaluation, feedback from others or in response to changed work practices or technology
- use a range of communication and team building strategies to gain team commitment to food safety
- use detailed product knowledge, including product characteristics and the requirements for safe preparation, processing, storage, handling and display, to monitor food safety
- utilise problem-solving strategies required in investigating non-conformance and reviewing the food safety system
- model safe food handling and quality practices and procedures to demonstrate required

work practices and provide leadership, including demonstrating:

- work procedures that meet the requirements of quality and food safety
- cleaning and sanitising equipment
- sampling and testing, as appropriate, according to quality and food safety requirements
- maintaining personal hygiene
- wearing appropriate clothing and footwear as required by the work task
- following procedures when moving within and between work areas
- reporting health conditions and illnesses according to workplace procedures
- handling, cleaning and storing equipment, utensils and packaging materials, as appropriate.

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**Required knowledge includes:****Knowledge of:**

- current technical and process knowledge required to participate in investigations of food safety/quality hazards, risks and incidents
- common microbiological, physical and chemical hazards to food safety, and related control methods
- the way changes in equipment and/or processing methods can affect food safety hazards and level of risk
- the objectives of a HACCP-based food safety system
- the steps in the development of a HACCP-based food safety system
- the steps in the systematic introduction of a HACCP-based food safety system
- enterprise recall and traceability procedures
- purpose of the HACCP development and review process
- the document controls associated with a procedure change
- the purpose of SOPs and work instructions
- the process of auditing and verifying a HACCP-based food safety system.

## Evidence Guide

The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.

<b>Overview of assessment</b>	A person who demonstrates competency in this unit must be able to maintain and implement a HACCP-based food safety plan.
<b>Critical aspects for assessment and evidence required to demonstrate competency in this unit</b>	<p>Critical aspects of assessment must include the following:</p> <ul style="list-style-type: none"> <li>• review a food safety plan for a food processing operation</li> <li>• communicate the requirements of a food safety plan to workers</li> <li>• demonstrate safe food handling work practices</li> <li>• complete records and reports related to the implementation of food safety</li> <li>• respond to non-compliances and take corrective action.</li> </ul>
<b>Context of and specific resources for assessment</b>	<p>Assessment of performance requirements in this unit should be undertaken within the context of food technology. Competency is demonstrated by performance of all stated criteria, including the critical aspects and knowledge and skills elaborated in the Evidence Guide, and within the scope as defined by the Range Statements applicable to the workplace environment.</p> <p>Assessment must occur in a real or simulated workplace where the assessee has access to:</p> <ul style="list-style-type: none"> <li>• production process and related equipment, manufacturers' advice and operating procedures</li> <li>• a HACCP-based food safety plan for the food processing enterprise</li> <li>• methods and related software systems, as required, for collecting data, analysing data and compiling into a report.</li> </ul>
<b>Method of assessment</b>	<p>The following assessment methods are suggested:</p> <ul style="list-style-type: none"> <li>• written and/or oral questioning to assess knowledge and understanding</li> <li>• a report on the review of a HACCP-based food safety system</li> <li>• workplace evidence and third-party verification of participation in the maintenance and implementation of a HACCP-based food safety system</li> <li>• observation of candidate demonstrating work practices and workplace standards to maintain food safety</li> <li>• case studies</li> <li>• field reports.</li> </ul>

<b>Guidance information for assessment</b>	Evidence should be gathered over a period of time in a range of actual or simulated environments.
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## Range Statement

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.



<b>Food safety program</b>	<p>A food safety program is a written document that specifies ‘...the systematic identification of hazard points, in the production, processing and sale of food and the implementation of risk avoidance, risk minimisation and risk management strategies in respect of these identified hazards.’</p> <p>(National Food Authority 1994, p17).</p> <p>The food safety program and related procedures must comply with legal requirements of the Food Safety Standards and must be communicated to all food handlers. Where no food safety program is in place, food safety requirements may be specified in general operating procedures</p>
<b>Control points</b>	<p>Control points include:</p> <ul style="list-style-type: none"> <li>critical, quality and regulatory control points</li> </ul>
<b>Workplace information</b>	<p>Workplace information may be provided in:</p> <ul style="list-style-type: none"> <li>food safety and quality policies and programs</li> <li>standard operating procedures (SOPs)</li> <li>specifications</li> <li>log sheets</li> <li>written or verbal instruction incorporating food safety and quality requirements</li> </ul>
<b>Incidents</b>	<p>A food safety incident:</p> <ul style="list-style-type: none"> <li>is a situation where the safe limits or parameters identified by the food safety program are not met</li> </ul> <p>A quality incident:</p> <ul style="list-style-type: none"> <li>is a situation where the quality limits or parameters identified in specifications or processing instructions are not met</li> </ul>
<b>Monitoring</b>	<p>Monitoring describes the methods used to confirm that a food safety or quality hazard is in control. Examples of monitoring procedures include:</p> <ul style="list-style-type: none"> <li>taking temperatures</li> <li>collecting samples</li> <li>conducting visual inspections</li> <li>testing, as required</li> </ul>
<b>Responsibility for identifying breaches of food safety procedures</b>	<p>Responsibility for identifying breaches of food safety procedures and taking corrective action:</p> <ul style="list-style-type: none"> <li>occurs in the context of the food safety program and within scope of responsibility</li> </ul>
<b>Responsibility for identifying non-compliance against quality</b>	<p>Responsibility for identifying non-compliance against quality standards:</p>

<b>standards</b>	<ul style="list-style-type: none"> <li>occurs within the context of defined standards or specifications and relates to work area</li> </ul>
<b>Personal hygiene requirements</b>	Minimum personal hygiene requirements are specified by the food safety program. At a minimum this must meet legal requirements as set out in the Food Safety Standard 3.2.2, Division 4:14 and/or state/territory legislation/regulations
<b>Reporting of health conditions and illnesses</b>	Reporting of health conditions and illnesses requirements are specified by the food safety program. At a minimum this must meet legal requirements as set out in Food Safety Standard 3.2.2, Division 4:13 and/or state/territory legislation/regulations
<b>Operator responsibilities</b>	<p>The operator at this level may have direct responsibility for overseeing the training/development of team members.</p> <p>The operator at this level may have some responsibility for independently assessing risks and determining the effectiveness of control measures. They would be expected to observe day-to-day effectiveness of the food safety plan and participate in assessment and review processes. Responsibilities at this level may include facilitating consultation processes</p>
<b>Record keeping</b>	Record keeping complies with customer, legal and food safety program requirements
<b>Verification of a food safety system</b>	<p>Verification refers to methods and procedures used to carry out monitoring, including:</p> <ul style="list-style-type: none"> <li>sampling and testing to provide evidence that the specifications set by food safety legislation and enterprise requirements continue to be met</li> </ul>

## Unit Sector(s)

Food safety.

# **FDFST4002A Monitor the development and implementation of a food QA system**

## **Modification History**

April 2012: Minor typographical corrections.

## **Unit Descriptor**

This unit covers the skills and knowledge required to develop and manage a HACCP-based Quality Assurance (QA) Program.

## **Application of the Unit**

This unit applies to quality assurance and technical staff who have responsibility for developing and/or implementing a HACCP-based QA system in a food processing environment.

## **Licensing/Regulatory Information**

Not applicable.

## **Pre-Requisites**

Not applicable.

## **Employability Skills Information**

This unit contains employability skills.

## **Elements and Performance Criteria Pre-Content**

Elements describe the essential outcomes of a unit of competency.

Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.

## Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Establish the scope of the QA system	1.1 Enterprise needs and expectations in product quality are clearly defined 1.2 Existing systems and requirements are detailed for incorporation into the QA system 1.3 Scope of the HACCP-based quality system is defined to encompass production system and product requirements 1.4 System is directed to prevent and control identified hazards
2. Conduct hazard analysis and assessment	2.1 Every step in the production process is assessed for potential food safety hazards 2.2 Critical Control Points (CCPs) are established to identify where each significant hazard can be prevented or controlled 2.3 A measurable or recognisable standard is assigned for each CCP to define the critical limits 2.4 Critical limits are technically and scientifically validated
3. Ensure all documents, work procedures and processes required for the system are developed, available and in use	3.1 All products and processes covered by the QA system are described in a standardised format defining product characteristics relevant to food safety 3.2 Work instructions and Standard Operating Procedures (SOPs) are reviewed for accuracy, relevance and sufficiency to prevent hazards 3.3 Documented procedures for monitoring CCPs are implemented 3.4 Documented procedures which ensure any CCPs which are outside critical limits are brought back within limits, and affected product is suitably handled, are implemented 3.5 Documented procedures are implemented to ensure the QA system is regularly verified and audited as working effectively 3.6 Availability and data storage of all records and documents for the system is maintained
4. Respond to non-conforming product or processes	4.1 Procedures for taking corrective action are identified 4.2 Corrective and preventative measures are implemented to prevent recurrence. 4.3 Procedures are devised or revised to support control measures 4.3 Processes or conditions which could result in a breach of procedures are identified and corrective action is taken 4.4 Process changes are introduced and controlled so that quality assurance requirements are accomplished
5. Review product sampling and test results	5.1 Product sampling procedures are identified 5.2 Post collection procedures are identified according to SOPs 5.3 Test results are reviewed and responded to in accordance with

ELEMENT	PERFORMANCE CRITERIA
	workplace requirements
6. Audit, verify and validate the system	<p>6.1 HACCP plans are routinely revised, verified and validated to reassess hazards, CCPs, critical limits, testing methods and all related procedures of the QA system to ensure they are appropriate to the enterprise requirements</p> <p>6.2 Internal or external audit findings are followed up and acted upon</p> <p>6.3 Reported quality hazards and non conformances are investigated and acted upon</p> <p>6.4 The HACCP-based QA system is reviewed to take account of any process changes or product specifications</p>

## Required Skills and Knowledge

This section describes the skills and knowledge required for this unit.

### Required skills include:

#### Ability to:

- define the scope of the quality system and food safety system to ensure requirements are met
- apply the HACCP principles and the process for developing a quality assurance or food safety program
- conduct monitoring of a CCP
- determine and take corrective and preventative action
- apply workplace, regulatory and customer requirements critical to the workplace's operation and success
- identify critical limits for enterprise product or processes
- identify the actual and potential risks associated with uncontrolled changes in procedures
- interpret the resulting trends of product monitoring and testing
- interpret the results and trends of process monitoring
- monitor records and documentation for accuracy and compliance
- monitor the accurate and timely recording of quality data
- outline legal obligations of the enterprise and individuals for maintenance of the Quality Assurance system
- identify and apply relevant OH&S, regulatory and workplace requirements
- identify the documentation required to support a HACCP-based QA system
- record and analyse monitoring and verification data
- validate CCPs and critical limits
- identify and describe implementation of a change in the process
- identify causes of variation and non-conformance and explain appropriate course(s) of action

to rectify problems

- outline team requirements and team management processes or strategies
- prepare process and product status reports recommending changes to improve processes and procedures
- prepare reports using primary and summary data, and appropriate language
- review communication systems (spoken and written) to minimise the potential for misreporting and misunderstanding of food safety requirements, procedures and plans
- use relevant communication skills
- Utilise available technology to record, manipulate, analyse and present or report data
- apply appropriate mathematical concepts and measures
- assemble product and process inspection, test and other quality data in prescribed format.

### Required knowledge includes:

#### Knowledge of:

- the steps in the development of a HACCP-based QA system
- the steps in the systematic introduction of a HACCP-based QA system
- enterprise recall and traceability procedures
- post collection procedures for handling samples
- purpose of the HACCP development and review process
- risks associated with samples and how they may be minimised
- the types of data the enterprise uses to record performance
- the document controls associated with a procedure change
- the purpose of calibrating equipment
- the purpose of SOPs and work instructions
- sampling procedures
- the process of auditing and verifying a HACCP-based QA system
- the objectives of a HACCP-based QA system
- the process for validating critical limits and CCPs
- the role of pre-requisite programs and Good Manufacturing Processes (GMPs) in a HACCP-based program.

## Evidence Guide

The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.

Overview of assessment	A person who demonstrates competency in this unit must be able to develop and manage a HACCP-based Quality Assurance (QA) Program.
Critical aspects for assessment and	Critical aspects of evidence that the candidate can

evidence required to demonstrate competency in this unit	<p>monitor the development and implementation of a food QA system must include the following:</p> <ul style="list-style-type: none"> <li>• scoping the requirements for a QA system</li> <li>• analysing a production process to identify CCPs and establish critical limits</li> <li>• developing procedures for implementing and monitoring a QA system</li> <li>• maintaining data and documentation for a QA system</li> <li>• contributing to a review of a QA system, including verification and validation.</li> </ul>
Context of and specific resources for assessment	<p>Assessment of performance requirements in this unit should be undertaken within the context of food technology. Competency is demonstrated by performance of the processes specified, including the critical aspects and knowledge and skills elaborated in the Evidence Guide, and within the scope as defined by the Range Statements applicable to the workplace environment.</p> <p>Assessment must occur in a real or simulated workplace where the assessee has access to:</p> <ul style="list-style-type: none"> <li>• production process and related equipment, manufacturers' advice and operating procedures</li> <li>• methods and related software systems as required for collecting data and calculating yields, efficiencies and material variances appropriate to production environment</li> <li>• tests used to report relevant product/process information and recorded results.</li> </ul>
Method of assessment	<p>The following assessment methods are suggested:</p> <ul style="list-style-type: none"> <li>• written and/or oral questioning to assess knowledge and understanding</li> <li>• the development of a HACCP-based quality system for a food product</li> <li>• a report on review of a HACCP-based quality production system</li> <li>• workplace evidence and third party verification of participation in the development and implementation of a HACCP-based QA system</li> <li>• Case studies</li> <li>• Field Reports.</li> </ul>
Guidance information for assessment	<p>Evidence should be gathered over a period of time in a range of actual or simulated environments.</p>

## Range Statement

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.

<b>Occupational health and safety requirements</b>	<ul style="list-style-type: none"> <li>Codes of practice</li> <li>Material Safety Data Sheets</li> <li>Enterprise OHS policies, procedures and programs.</li> </ul>
<b>Regulations</b>	<ul style="list-style-type: none"> <li>Australian and international standards including:</li> <li>Australia New Zealand Food Standards Code</li> <li>ISO Standards</li> <li>codex alimentarius</li> <li>industry guidelines and codes of practice</li> <li>industry regulations</li> <li>State food regulations.</li> </ul>
<b>Workplace requirements</b>	<ul style="list-style-type: none"> <li>Enterprise QA policy, practices and procedures</li> <li>Enterprise-specific procedures</li> <li>SOPs</li> </ul> <p>Enterprise task requirements and work instructions.</p>
<b>Production system and product requirements</b>	<ul style="list-style-type: none"> <li>These may include food safety, product quality, regulatory compliance, animal welfare (if required) and preventative maintenance.</li> </ul>
<b>Verification of a QA system</b>	<ul style="list-style-type: none"> <li>Verification <b>refers to</b> methods and procedures used to carry out monitoring, including sampling and testing to provide evidence that the specifications set by relevant legislation and codes of practice continue to be met.</li> </ul>
<b>Validation of a QA system</b>	<ul style="list-style-type: none"> <li>Validation refers to obtaining evidence to confirm that a HACCP-based QA program is complete and effective and will deliver the expected outcomes.</li> </ul>

## Unit Sector(s)

Technical.



## **FDFFST4003A Apply digital technology in food processing**

### **Modification History**

April 2012: Minor typographical corrections.

### **Unit Descriptor**

This unit covers the skills and knowledge required to develop and manage a HACCP-based Quality Assurance (QA) Program.

### **Application of the Unit**

This unit applies to quality assurance and technical staff who have responsibility for developing and/or implementing a HACCP-based QA system in a food processing environment.

### **Licensing/Regulatory Information**

Not applicable.

### **Pre-Requisites**

Not applicable.

### **Employability Skills Information**

This unit contains employability skills.

### **Elements and Performance Criteria Pre-Content**

Elements describe the essential outcomes of a unit of competency.

Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.

## Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Establish the scope of the QA system	1.1 Enterprise needs and expectations in product quality are clearly defined 1.2 Existing systems and requirements are detailed for incorporation into the QA system 1.3 Scope of the HACCP-based quality system is defined to encompass production system and product requirements 1.4 System is directed to prevent and control identified hazards
2. Conduct hazard analysis and assessment	2.1 Every step in the production process is assessed for potential food safety hazards 2.2 Critical Control Points (CCPs) are established to identify where each significant hazard can be prevented or controlled 2.3 A measurable or recognisable standard is assigned for each CCP to define the critical limits 2.4 Critical limits are technically and scientifically validated
3. Ensure all documents, work procedures and processes required for the system are developed, available and in use	3.1 All products and processes covered by the QA system are described in a standardised format defining product characteristics relevant to food safety 3.2 Work instructions and Standard Operating Procedures (SOPs) are reviewed for accuracy, relevance and sufficiency to prevent hazards 3.3 Documented procedures for monitoring CCPs are implemented 3.4 Documented procedures which ensure any CCPs which are outside critical limits are brought back within limits, and affected product is suitably handled, are implemented 3.5 Documented procedures are implemented to ensure the QA system is regularly verified and audited as working effectively 3.6 Availability and data storage of all records and documents for the system is maintained
4. Respond to non-conforming product or processes	4.1 Procedures for taking corrective action are identified 4.2 Corrective and preventative measures are implemented to prevent recurrence 4.3 Procedures are devised or revised to support control measures 4.4 Processes or conditions which could result in a breach of procedures are identified and corrective action is taken 4.5 Process changes are introduced and controlled so that quality assurance requirements are accomplished
5. Review product sampling and test results	5.1 Product sampling procedures are identified 5.2 Post collection procedures are identified according to SOPs 5.3 Test results are reviewed and responded to in accordance with

ELEMENT	PERFORMANCE CRITERIA
	workplace requirements
6. Audit, verify and validate the system	<p>6.1 HACCP plans are routinely revised, verified and validated to reassess hazards, CCPs, critical limits, testing methods and all related procedures of the QA system to ensure they are appropriate to the enterprise requirements</p> <p>6.2 Internal or external audit findings are followed up and acted upon</p> <p>6.3 Reported quality hazards and non conformances are investigated and acted upon</p> <p>6.4 The HACCP-based QA system is reviewed to take account of any process changes or product specifications</p>

## Required Skills and Knowledge

This section describes the skills and knowledge required for this unit.

### Required skills include:

#### Ability to:

- define the scope of the quality system and food safety system to ensure requirements are met
- apply the HACCP principles and the process for developing a quality assurance or food safety program
- conduct monitoring of a CCP
- determine and take corrective and preventative action
- apply workplace, regulatory and customer requirements critical to the workplace's operation and success
- identify critical limits for enterprise product or processes
- identify the actual and potential risks associated with uncontrolled changes in procedures
- interpret the resulting trends of product monitoring and testing
- interpret the results and trends of process monitoring
- monitor records and documentation for accuracy and compliance
- monitor the accurate and timely recording of quality data
- outline legal obligations of the enterprise and individuals for maintenance of the Quality Assurance system
- identify and apply relevant OH&S, regulatory and workplace requirements
- identify the documentation required to support a HACCP-based QA system
- record and analyse monitoring and verification data
- validate CCPs and critical limits
- identify and describe implementation of a change in the process
- identify causes of variation and non-conformance and explain appropriate course(s) of action

to rectify problems

- outline team requirements and team management processes or strategies
- prepare process and product status reports recommending changes to improve processes and procedures
- prepare reports using primary and summary data, and appropriate language
- review communication systems (spoken and written) to minimise the potential for misreporting and misunderstanding of food safety requirements, procedures and plans
- use relevant communication skills
- Utilise available technology to record, manipulate, analyse and present or report data
- apply appropriate mathematical concepts and measures
- assemble product and process inspection, test and other quality data in prescribed formal.

### Required knowledge includes:

#### Knowledge of:

- the steps in the development of a HACCP-based QA system
- the steps in the systematic introduction of a HACCP-based QA system
- enterprise recall and traceability procedures
- post collection procedures for handling samples
- purpose of the HACCP development and review process
- risks associated with samples and how they may be minimised
- the types of data the enterprise uses to record performance
- the document controls associated with a procedure change
- the purpose of calibrating equipment
- the purpose of SOPs and work instructions
- sampling procedures
- the process of auditing and verifying a HACCP-based QA system
- the objectives of a HACCP-based QA system
- the process for validating critical limits and CCPs
- the role of pre-requisite programs and Good Manufacturing Processes (GMPs) in a HACCP-based program.

## Evidence Guide

The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.

Overview of assessment	A person who demonstrates competency in this unit must be able to develop and manage a HACCP-based Quality Assurance (QA) Program.
Critical aspects for assessment and	Critical aspects of evidence that the candidate can

evidence required to demonstrate competency in this unit	<p>monitor the development and implementation of a food QA system must include the following:</p> <ul style="list-style-type: none"> <li>• scoping the requirements for a QA system</li> <li>• analysing a production process to identify CCPs and establish critical limits</li> <li>• developing procedures for implementing and monitoring a QA system</li> <li>• maintaining data and documentation for a QA system</li> <li>• contributing to a review of a QA system, including verification and validation.</li> </ul>
Context of and specific resources for assessment	<p>Assessment of performance requirements in this unit should be undertaken within the context of food technology. Competency is demonstrated by performance of the processes specified, including the critical aspects and knowledge and skills elaborated in the Evidence Guide, and within the scope as defined by the Range Statements applicable to the workplace environment.</p> <p>Assessment must occur in a real or simulated workplace where the assessee has access to:</p> <ul style="list-style-type: none"> <li>• production process and related equipment, manufacturers' advice and operating procedures</li> <li>• methods and related software systems as required for collecting data and calculating yields, efficiencies and material variances appropriate to production environment</li> <li>• tests used to report relevant product/process information and recorded results.</li> </ul>
Method of assessment	<p>The following assessment methods are suggested:</p> <ul style="list-style-type: none"> <li>• written and/or oral questioning to assess knowledge and understanding</li> <li>• the development of a HACCP-based quality system for a food product</li> <li>• a report on review of a HACCP-based quality production system</li> <li>• workplace evidence and third party verification of participation in the development and implementation of a HACCP-based QA system</li> <li>• Case studies</li> <li>• Field Reports.</li> </ul>
Guidance information for assessment	<p>Evidence should be gathered over a period of time in a range of actual or simulated environments.</p>

## Range Statement

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.

<b>Occupational health and safety requirements</b>	<ul style="list-style-type: none"> <li>Codes of practice</li> <li>Material Safety Data Sheets</li> <li>Enterprise OHS policies, procedures and programs.</li> </ul>
<b>Regulations</b>	<ul style="list-style-type: none"> <li>Australian and international standards including:</li> <li>Australia New Zealand Food Standards Code</li> <li>ISO Standards</li> <li>codex alimentarius</li> <li>industry guidelines and codes of practice</li> <li>industry regulations</li> <li>State food regulations.</li> </ul>
<b>Workplace requirements</b>	<ul style="list-style-type: none"> <li>Enterprise QA policy, practices and procedures</li> <li>Enterprise-specific procedures</li> <li>SOPs</li> </ul> <p>Enterprise task requirements and work instructions</p>
<b>Production system and product requirements</b>	<ul style="list-style-type: none"> <li>These may include food safety, product quality, regulatory compliance, animal welfare (if required) and preventative maintenance.</li> </ul>
<b>Verification of a QA system</b>	<ul style="list-style-type: none"> <li>Verification <b>refers to</b> methods and procedures used to carry out monitoring, including sampling and testing to provide evidence that the specifications set by relevant legislation and codes of practice continue to be met.</li> </ul>
<b>Validation of a QA system</b>	<ul style="list-style-type: none"> <li>Validation refers to obtaining evidence to confirm that a HACCP-based QA program is complete and effective and will deliver the expected outcomes.</li> </ul>

## Unit Sector(s)

Technical.

# **FDFST4005A Document processes and procedures for a food product**

## **Modification History**

April 2012: Minor typographical corrections.

## **Unit Descriptor**

This unit covers the skills and knowledge required to document the operational steps and procedures in producing a processed food product.

## **Application of the Unit**

This unit applies to quality assurance and technical staff who are required to document processes and procedures for a food product, and who have responsibility for monitoring and maintaining product safety and quality and the production environment.

## **Licensing/Regulatory Information**

Not applicable.

## **Pre-Requisites**

Not applicable.

## **Employability Skills Information**

This unit contains employability skills.

## **Elements and Performance Criteria Pre-Content**

Elements describe the essential outcomes of a unit of competency.

Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.

## Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Identify the stages and operations required in the processing of a food product	1.1 Inputs, production processes and outputs are identified 1.2 Each step in processing is examined and impacts, feedback and process adjustment in the production system is assessed 1.3 Hazards to food safety and product quality at each stage of production are identified
2. Identify the facilities, equipment, workflow and process controls for a processed food product	2.1 Functions of the major production stages are classified and analysed 2.2 Equipment used to perform each operation stage is identified 2.3 The facilities, workflow and layout of the workplaces, or technical work area, together with their core activities and links with other parts of the organisation are identified 2.4 Process controls are documented for a processed food product 2.5 The workforce structure and the roles and responsibilities of workplace personnel are established for a given food product 2.6 Information management processes are investigated for a food processing operation
3. Produce flow diagrams for nominated unit operations	3.1 Correct nomenclature and symbols are used to show processes, inputs and outputs 3.2 The completed flow diagram is reviewed and suggestions for improvements for product quality and operational efficiency are documented 3.3 Energy and resource usage, and environmental impacts, of production processes are quantified 3.4 Procedures for testing for yields and/or variances are identified at each stage 3.5 Areas for process improvement are identified for further analysis

## Required Skills and Knowledge

This section describes the skills and knowledge required for this unit.

### Required skills include:

#### Ability to:

- identify major stages and operations, including: material transfer, separation, size reduction, combination, heat exchange, biochemical transformation, shaping and extrusion
- analyse the functions of the major operations, including purpose and application of each operation



- identify the range of equipment used to perform each major unit operation
- establish the function of each piece of equipment used to perform major operations
- review the resultant products of the major production operations on food, in accordance with quality control processes and procedures
- ascertain the affects of physical conditions e.g. temperature, pressure on the function of these unit operations
- prepare a process flow chart for each unit operations
- identify the process controls in place and how they ensure required production rate and consistent quality.

### Required knowledge includes:

#### Knowledge of:

- the basic theory behind each major operation e.g. material transfer, separation, size reduction, combining, heat exchange, biochemical transformation and shaping
- selection criteria regarding the equipment used to perform each major operation
- the basic operating principles for the equipment used to perform each major operation
- process flow charts and process control.

## Evidence Guide

The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.

Overview of assessment	A person who demonstrates competency in this unit must be able to document processes in a production system as part of system monitoring and continuous improvement.
Critical aspects for assessment and evidence required to demonstrate competency in this unit	Critical aspects of assessment must include evidence of the ability to document procedures for a food product, including identifying unit operations and representing a food processing operation in a diagrammatic form. Documented procedures must be able to be interpreted to review mechanisms for calculating variances and outputs that are outside of specification, and to identify areas for further refining and development under continuous improvement for a food product.
Context of and specific resources for assessment	Assessment of performance requirements in this unit should be undertaken within the context of food technology. Competency is demonstrated by performance of all stated criteria, including the critical

	<p>aspects and knowledge and skills elaborated in the Evidence Guide, and within the scope as defined by the Range Statements applicable to the workplace environment.</p> <p>Assessment must occur in a real or simulated workplace where the assessee has access to:</p> <ul style="list-style-type: none"> <li>• production process and related equipment, manufacturers' advice and operating procedures</li> <li>• methods and related software systems as required for collecting data and calculating yields, efficiencies and material variances appropriate to production environment</li> <li>• tests used to report relevant product/process information and recorded results.</li> </ul>
Method of assessment	<p>The following assessment methods are suggested:</p> <ul style="list-style-type: none"> <li>• written and/or oral questioning to assess knowledge and understanding</li> <li>• completing workplace documentation</li> <li>• third party reports from experienced practitioner</li> <li>• case studies</li> <li>• field reports.</li> </ul>
Guidance information for assessment	<p>Evidence should be gathered over a period of time in a range of actual or simulated environments.</p>

## Range Statement

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.

<b>Occupational health and safety requirements</b>	<ul style="list-style-type: none"> <li>• Codes of practice, regulations, Material Safety Data Sheets (MSDSs)</li> <li>• Enterprise specific requirements</li> <li>• Relevant State/Territory/Commonwealth Occupational Health and Safety acts, regulations, national standards, codes of practice and guidance notes which may apply in jurisdiction</li> <li>• Examples of specific task related procedures may include:</li> <li>• handling of chemicals</li> </ul>
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	<ul style="list-style-type: none"><li>• use of personal protective equipment (PPEs).</li></ul>
<b>Regulations</b>	<ul style="list-style-type: none"><li>• Australian New Zealand Food Standards Code</li><li>• AQIS</li><li>• Local Authority standards</li><li>• Symbols for process flow charts may be based on ISO 9000 Documentation, Quality Manual and 32 Operational Procedures (AQA ISO 9000 Series)</li><li>• Acts of Parliament, regulations and statutes.</li></ul>
<b>Materials, equipment and systems</b>	<ul style="list-style-type: none"><li>• Heating and cooling equipment, size reduction systems, materials transfer equipment, heat exchangers, forming and shaping equipment</li><li>• Major operations may include: material transfer, separation, size reduction, combining, heat exchange, biochemical transformation, shaping and extrusion operations.</li><li>• Each operations may include preventative maintenance procedures.</li></ul>

## Unit Sector(s)

Technical.

# **FDFST4007A Establish operational requirements for a food processing enterprise**

## **Modification History**

April 2012: Minor typographical corrections.

## **Unit Descriptor**

This unit covers the skills and knowledge required to review and report on operational requirements and issues in a food processing enterprise.

## **Application of the Unit**

This unit applies to food technologists, quality and food safety supervisors, technical specialists, and to middle management personnel who are new to the industry. It includes gaining an understanding of the economic and political structure of the industry, production stages and methods and the key factors affecting food safety and quality, and reporting procedures. The person who undertakes this unit must be aware of the intent and detail of legislation and be able to review compliance procedures.

## **Licensing/Regulatory Information**

Not applicable.

## **Pre-Requisites**

Not applicable.

## **Employability Skills Information**

This unit contains employability skills.

## **Elements and Performance Criteria Pre-Content**

Elements describe the essential outcomes of a unit of competency.

Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.

## Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Identify key issues and organisations that impact the Australian food processing industry	1.1 The range of job roles and responsibilities for a food processing operation are described 1.2 The environmental impacts of a food processing operation are determined 1.3 Impacts of customer expectations for product integrity, quality, safety and nutritional value on food processing operations are explained 1.4 The roles of key regulatory and industry bodies for a food processing sector are described
2. Identify the sequence of operations for processing a range of products in a sector	2.1 Procedures for the assembling and preparation of ingredients are implemented 2.2 The storage and handling requirements of ingredients for a food product are defined 2.3 A flow chart for the processing operations for a food product is constructed 2.4 Specifications for a food product are described and the methods used to ensure critical limits are complied with
3. Explain factors affecting food safety and product quality during processing	3.1 Key food safety issues in food processing are described 3.2 Food safety procedures are implemented and reviewed 3.3 Hygiene procedures for a food processing operation are applied 3.4 Factors affecting shelf life and spoilage in food products are explained 3.5 The nature and purpose of a product testing program is defined
4. Write and/or review standard operating procedures to comply with legislation relating to product and processing	4.1 Relevant legislation and regulations that apply to food production, packaging and labelling are identified 4.2 The purpose and scope of relevant legislation is defined 4.3 The roles and responsibilities of authorities responsible for administering legislation are identified 4.4 Operational and product requirements to comply with legislation are defined 4.5 A standard operating procedure is documented based on an organisation's templates and systems
5. Define organisational requirements to comply with legislation relating to food premises, equipment design and storage facilities	5.1 Legislation and regulations that apply to food premises, storage facilities and equipment are reviewed 5.2 The purpose and intent of relevant legislation is identified 5.3 The roles and responsibilities of authorities responsible for administering legislation are identified 5.4 Procedures to support compliance with legal requirements are

ELEMENT	PERFORMANCE CRITERIA
	established and/or reviewed
6. Provide written reports and presentations on food processing issues	6.1 Areas of noncompliance or with potential for process improvement are identified 6.2 Information is collected and problem solving strategies are used to review procedures 6.3 Data, discussion and recommendations are presented in a formatted report 6.4 Presentations which incorporate technical data and information are delivered

## Required Skills and Knowledge

This section describes the skills and knowledge required for this unit.

### Required skills include:

#### Ability to:

- describe industry organisations and their role
- define job roles and responsibilities for the food processing industry
- define the ingredients, operations and product specifications for a food processing operation
- define the inputs and outputs of a food processing operation, including the use of non renewable resources and impacts on air, soil, water and atmospheric CO<sub>2</sub> levels
- identify the legal responsibilities of a food processing company. This includes responsibilities relating to:
  - product content (Food Standards Code)
  - product packaging and labelling, including use of nutritional information panels (Food Standards Code)
  - design requirements of food premises and equipment
  - requirements of storage facilities used for materials, ingredients and final product
  - other requirements as appropriate to the product and/or market (e.g. import and/or export legislation)
- identify and/or develop specifications and procedures to ensure that legal responsibilities related to product content and packaging are achieved
- inspect plant design to identify potential hazards that could be introduced as a result of equipment design and configuration. For example, overhead pipes or equipment where dust could collect and fall into food. Where hazards are identified, apply the hierarchy of control to identify opportunities to remove or control the risk
- identify storage facilities across a production site. Identify the dangerous goods stored on site and confirm that storage of these goods (type and quantity) meets legal requirements
- confirm that employees required to handle chemicals and dangerous goods are advised of the

associated risks, that this information is available in a form appropriate to the audience and that Material Safety Data Sheets are available

- develop and/or review recording systems to confirm compliance with legislative requirements and ensure that employees responsible for recording information are informed of these responsibilities
- establish internal review/audit procedures to confirm that legislative responsibilities are met
- within each area of legislation applying to the activities of a food processing facility, identify the relevant authority responsible for administering the legislation. Identify the rights and responsibilities of related officers to access the production site
- present technical information in a written format and as a presentation.

### Required knowledge includes:

#### Knowledge of:

- industry organisations and representative bodies in food processing
- the environmental impacts of a food processing operation
- customer expectations and community perceptions of the food processing industry
- emerging technologies in food processing
- food testing methods
- procedures for QA and food safety
- legal responsibilities of a food processing company relating to product content and packaging
- the purpose and intent of relevant legislation
- potential hazards that could be introduced as a result of equipment design and configuration
- associated risks in handling chemicals and dangerous goods
- recording requirements to comply with legislative requirements
- recording procedures
- report templates and protocols
- oral and written communication strategies and protocols
- relevant authorities responsible for administering legislation and their roles

## Evidence Guide

The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.

#### Overview of assessment

Assessment must be carried out in a manner that recognises the cultural and literacy requirements of the assessee and is appropriate to the work performed. Competency in this unit must be achieved in accordance with food safety standards and regulations.

Critical aspects for assessment and evidence required to demonstrate competency in this unit	Candidates must be able to demonstrate the ability to establish and/or review procedures to support compliance and report on process improvement issues. Assessment must also include evidence of an understanding of: the role of industry organisations and job roles within the industry; systems, roles and procedures in place for food safety and QA; and legal requirements for the packing, production and labelling operations of a food production enterprise.
Context of and specific resources for assessment	Assessment must occur in a real or simulated workplace where the assessee has access to: <ul style="list-style-type: none"> <li>• workplace processes and procedures</li> <li>• workplace documentation including specifications and procedures</li> <li>• relevant legislation</li> <li>• communication systems</li> <li>• workplace information recording systems, requirements and procedures.</li> </ul>
Method of assessment	The following assessment methods are suggested: <ul style="list-style-type: none"> <li>• written and/or oral questioning to assess knowledge and understanding</li> <li>• completing workplace documentation</li> <li>• third party reports for the implementation of enterprise requirements for product safety and quality</li> <li>• case studies</li> <li>• field reports.</li> </ul>
Guidance information for assessment	To ensure consistency in one's performance, competency should be demonstrated on more than one occasion over a period of time in order to cover a variety of circumstances, cases and responsibilities, and where possible, over a number of assessment activities.

## Range Statement

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.



<b>Legislation</b>	<p>Legislation to be covered by this unit includes:</p> <ul style="list-style-type: none"> <li>• Acts of Parliament, regulations and statutes</li> <li>• Australian New Zealand Food Standards Code</li> <li>• Food Safety legislation (including provisions covering the design of food premises and equipment)</li> <li>• Local Authority regulations</li> <li>• Customs and excise legislation (for alcohol-based ingredients/materials)</li> <li>• AQIS requirements</li> <li>• Dangerous goods legislation</li> <li>• Import and export legislation</li> <li>• Additional legislation as appropriate to product, process and market.</li> </ul>
<b>Industry and regulatory organisations</b>	<p>These may include industry funded marketing co-operatives, research and development organisations (RDOs), certification bodies, federal and state regulatory agencies for OHS, environment and food safety, the Australian Quarantine Inspection Service, export and third party auditors, and organisations sponsoring QA schemes.</p>
<b>Occupational health and safety requirements</b>	<ul style="list-style-type: none"> <li>• Codes of practice, regulations, Material Safety Data Sheets (MSDSs)</li> <li>• Enterprise specific requirements</li> <li>• Relevant State/Territory/Commonwealth Occupational Health and Safety acts, regulations, national standards, codes of practice and guidance notes which may apply in jurisdiction</li> <li>• Examples of specific task related procedures may include: <ul style="list-style-type: none"> <li>• handling of chemicals</li> <li>• use of personal protective equipment (PPEs).</li> </ul> </li> </ul>
<b>Materials, equipment and systems</b>	<ul style="list-style-type: none"> <li>• Heating and cooling equipment, size reduction systems, materials transfer equipment, heat exchangers, forming and shaping equipment</li> <li>• Major operations may include: material transfer, separation, size reduction, combining, heat exchange, biochemical transformation, shaping and extrusion operations</li> <li>• Operations includes all food processing and preventative maintenance.</li> </ul>

## **Unit Sector(s)**

Technical.

# **FDFST4012A Apply water management principles to the food industry**

## **Modification History**

April 2012: Minor typographical corrections.

## **Unit Descriptor**

This unit covers the skills and knowledge required to monitor and manage water quality and usage in a food processing operation.

## **Application of the Unit**

This unit applies to quality assurance and technical staff who have responsibility for maintaining product safety, quality and efficiency of food processing operations that use water as part of the food production processes. The unit does not apply to the management of water used in a plant for non food production purposes e.g. for cleaning, showers, gardens etc. Responsible management of water for these purposes is covered under MSAENV472A Implement and monitor environmentally sustainable work practices.

## **Licensing/Regulatory Information**

Not applicable.

## **Pre-Requisites**

Not applicable.

## **Employability Skills Information**

This unit contains employability skills.

## **Elements and Performance Criteria Pre-Content**

Elements describe the essential outcomes of a unit of competency.

Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.

## Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Identify the sources and quality of water available to food processing plants	1.1 Current and possible future sources and quality of raw water are identified 1.2 The water quality requirements for required food processing operations are identified 1.3 The suitability of water supplied from a range of sources, including water recycled from the food processing plant, is assessed 1.4 The consumption of non recycled water is assessed and a reduction strategy formulated
2. Identify raw water pre treatment processes	2.1 The steps involved in water purification are documented and data on quality for supplied water is obtained 2.2 Water disinfection methods and equipment for a range of food processing operations are identified and evaluated
3. Apply efficient and sustainable water management principles to the food processing industry	3.1 Opportunities for reducing water usage in the food processing operation is identified 3.2 Sources and characteristics of waste water generated across the food processing operation are identified 3.3 Methods for treating and recycling water for re-use in food processing operation are identified 3.4 Opportunities to reduce the volume of waste water and improve treatment methods are identified 3.5 Procedures for future water management are reviewed and critical limits set

## Required Skills and Knowledge

This section describes the skills and knowledge required for this unit.

### Required skills include:

#### Ability to

- assess the suitability of water supplied from a range of sources, and water recycled within the food processing plant
- identify the water quality requirements for a range of food processing operations
- map the steps involved in water purification at municipal water treatment plants
- identify water disinfection methods, suitable for a range of food processing operations
- appraise suitable systems and equipment for water disinfection in the food processing industry

- identify the sources and characteristics of waste water generated across food processing operations
- identify methods for treating and recycling water and minimising potable water consumption
- identify legal requirements for water discharge.

**Required knowledge includes:****Knowledge of:**

- water quality requirements, including:
  - chemical specifications e.g. pH, Total Suspended Solids (TSS), Total Dissolved Solids (TDS), heavy metals
  - microbiological specifications eg. BOD, presence of Fecal coliform, bacteria, Cryptosporidium, Giardia
- water purification processes in general
- water disinfection methodologies and systems suitable for the food processing industry including chlorination, ozonation and UV irradiation
- waste water treatment (relevant to a food processing plant) including primary, secondary and tertiary waste water treatment stages
- waste stream characteristics and classification in relation to the food processing industry
- methods of reducing, reusing and recycling water in a food processing operation, e.g. implementation and routine monitoring of waste reduction practices, use of consumable, returnable, refillable or reusable packaging
- State legislation and local bylaws governing prescribed wastes
- legal requirements for water discharge
- regulations relating to the processing and disposal of food waste
- the major requirements contained in the environmental protection legislation, including State environmental regulatory certification procedures, permits and waste discharge agreements.

**Evidence Guide**

The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.

Overview of assessment	A person who demonstrates competency in this unit must be able to implement and review water and waste procedures for a food processing operation.
Critical aspects for assessment and evidence required to demonstrate competency in this unit	Critical aspects of assessment must include evidence of the ability to assess water quality for use in food processing, monitor water usage for a food processing operation, integrate water quality monitoring into process planning, and implement and review water management

	procedures in food processing.
Context of and specific resources for assessment	<p>Assessment of performance requirements in this unit should be undertaken within the context of food technology. Competency is demonstrated by performance of all stated criteria, including the critical aspects and knowledge and skills elaborated in the Evidence Guide, and within the scope as defined by the Range Statements applicable to the workplace environment.</p> <p>Assessment must occur in a real or simulated workplace where the assessee has access to:</p> <ul style="list-style-type: none"> <li>• production process and related equipment, manufacturers' advice and operating procedures</li> <li>• methods and related software systems as required for collecting data and calculating yields, efficiencies and material variances appropriate to production environment</li> <li>• tests used to report relevant product/process information and recorded results.</li> </ul>
Method of assessment	<p>The following assessment methods are suggested:</p> <ul style="list-style-type: none"> <li>• observation of candidate conducting a range of tests and procedures</li> <li>• written and/or oral questioning to assess knowledge and understanding</li> <li>• completing workplace documentation</li> <li>• third party reports from experienced practitioner</li> <li>• case studies</li> <li>• field Reports.</li> </ul>
Guidance information for assessment	Evidence should be gathered over a period of time in a range of actual or simulated environments.

## Range Statement

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.

### Legislation

Legislation refers to any relevant Commonwealth and State Acts of Parliament, Statutes and Regulations

	<p>including legislation and regulations covering:</p> <ul style="list-style-type: none"> <li>• the use of water for commercial and industrial use</li> <li>• environmental protection</li> <li>• waste generation and disposal</li> <li>• food standards and food safety</li> <li>• occupational health and safety.</li> </ul>
<b>Policies and procedures</b>	<ul style="list-style-type: none"> <li>• Codes of practice, e.g. Manual Handling and Small Wastewater Treatment Plants</li> <li>• Australian and international standards e.g. ISO14000.</li> </ul>
<b>Water sources</b>	<p>Water sources may include:</p> <ul style="list-style-type: none"> <li>• reticulated supply from water authorities</li> <li>• municipal treatment plants</li> <li>• bores</li> <li>• dams</li> <li>• rainwater tanks</li> <li>• recycled water.</li> </ul>
<b>Water quality requirements</b>	<p>Water quality requirements for food processing operations may include chemical, microbiological, physical and radiological specifications.</p>
<b>Treatment and disposal methods</b>	<p>Treatment and disposal may include on site storage and disposal; dilution; specifying/controlling discharge rates; recycle and reuse options; on site pre-treatment.</p>
<b>Waste management documentation</b>	<p>Waste management documentation may include information on applicable trade waste laws or other requirements; complaint records; training records; process information, process operation log book; inspection, maintenance and calibration records; relevant contractor and supplier information; incident reports. Information on emergency preparedness and response, records of significant trade waste impacts; audit results; management reviews; trade waste charging policy; industrial trade waste generators register.</p>

## Unit Sector(s)

Technical.

## FDFOHS2001A Participate in OHS processes

### Modification History

Not applicable.

### Unit Descriptor

<b>Unit descriptor</b>	This unit of competency specifies the workplace performance required for an entry level employee to participate in occupational health and safety (OHS) processes in the workplace, in order to ensure their own health and safety at work, as well as that of those in the workplace who may be affected by their actions.
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### Application of the Unit

<b>Application of the unit</b>	<p>This unit is intended for application during induction of new entrants to the workplace and where worker has basic operational knowledge and skills for a limited range of tasks and problems. IT includes apprentices, trainees and casual workers.</p> <p>Application of this unit should be contextualised to reflect any specific workplace risks, hazards and associated safety practices.</p>
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### Licensing/Regulatory Information

Not applicable.

### Pre-Requisites

<b>Prerequisite units</b>		



## Employability Skills Information

<b>Employability skills</b>	This unit contains employability skills.
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## Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.	Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.
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## Elements and Performance Criteria

<b>ELEMENT</b>	<b>PERFORMANCE CRITERIA</b>
1. Plan and prepare to work safely	<p>1.1. Hazards in the work area are identified and action taken to control risks for those hazards the employee can correct</p> <p>1.2. Hazards and inadequacies in control measures the employee cannot correct are reported in accordance with organisation procedures</p> <p>1.3. Pre-start checks are carried out as required according to work procedures</p>
2. Conduct work safely	<p>2.1. Personal protective equipment is used correctly and maintained when required</p> <p>2.2. Work procedures and workplace instructions for ensuring safety are followed when planning and conducting work</p> <p>2.3. Incidents and injuries to are reported to designated personnel</p> <p>2.4. OHS housekeeping is undertaken in work area</p>
3. Participate in OHS consultative activities	<p>3.1. Knowledge of roles and responsibilities of OHS representatives and OHS committees is applied</p> <p>3.2. Constructive contribution to workplace meetings, workplace inspections or other OHS consultative</p>

ELEMENT	PERFORMANCE CRITERIA
	<p>activities is made</p> <p>3.3.OHS issues are raised with designated personnel according to organisation procedures</p> <p>3.4.Input to improve workplace OHS systems and processes is provided to eliminate hazards or reduce risk according to organisation procedures,</p>
4. Follow emergency response procedures	<p>4.1.Emergency situations are identified and reported</p> <p>4.2.Organisation procedures for responding to emergencies are followed</p>

## Required Skills and Knowledge

### REQUIRED SKILLS AND KNOWLEDGE

This section describes the skills and knowledge required for this unit.

#### Required skills

##### *Ability to:*

- follow clear, logical verbal or clear, logical Plain English written instructions
- interpret selected pictorial/graphical and written signs/instructions
- clarify meaning with peers and supervisors
- give accurate verbal or written descriptions of incidents or hazards
- participate in OHS activities, including inspections, meetings and risk assessments

#### Required knowledge

##### *Essential knowledge:*

- applicable commonwealth, state or territory OHS legislation, regulations, standards, codes of practice and industry standards/guidance notes relevant to own work, role and responsibilities
- safety signs and their meanings, including signs for:
  - personal protective equipment
  - emergency equipment
  - dangerous goods class signs
  - specific hazards, such as sharps and radiation
- legal rights and responsibilities of the workplace parties
- the difference between hazard and risk
- nature of common workplace hazards, such as chemicals, bodily fluids, sharps, noise, manual handling, work postures, underfoot hazards and moving parts of

**REQUIRED SKILLS AND KNOWLEDGE**

- machinery
- standard emergency signals, alarms and required responses
- the elements within the hierarchy of control
- safety measures related to common workplace hazards
- sources of OHS information in the workplace
- the roles and responsibilities of employees, supervisors and managers in the workplace
- roles and responsibilities of OHS representatives, OHS committees and employers
- workplace specific information, including:
  - hazards of the particular work environment
  - potential emergencies relevant to the workplace
  - designated person for raising OHS issues
  - organisation and work procedures particularly those related to performance of own work, specific hazards and risk control, reporting of hazards, incidents and injuries, consultation, use of personal protective equipment and emergency response
  - potential emergency situations, alarms and signals, and required response

**Evidence Guide****EVIDENCE GUIDE**

The Evidence Guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.

**Overview of assessment**

Assessment must be carried out in a manner that recognises the cultural and literacy requirements of the assessee and is appropriate to the work performed. Competence in this unit must be achieved in accordance with food safety standards and regulations

**Critical aspects for assessment and evidence required to demonstrate competency in this unit**

- To demonstrate competence in this unit, a candidate must be able to provide evidence of the application of their knowledge of OHS:
  - in an actual or simulated workplace context involving relevant work processes
  - to their own health and safety within their work area
  - to that of others who may be affected by their actions

<b>EVIDENCE GUIDE</b>	
	<ul style="list-style-type: none"> <li>• A candidate must also be able to provide evidence of participating in workplace OHS processes</li> <li>• Evidence gathered by an assessor to determine competence will include practical demonstration of competence, including:             <ul style="list-style-type: none"> <li>• workplace demonstration, simulation exercise, scenario or role play</li> <li>• indirect evidence from workplace supervisor reports and workplace documentation</li> </ul> </li> </ul>
<b>Context of and specific resources for assessment</b>	<p>Products that could be used as evidence include:</p> <ul style="list-style-type: none"> <li>• verbal and written responses to verbal, pictorial, or physical scenarios</li> <li>• demonstrated action to scenarios, simulations, role plays</li> <li>• completed hazard or incident reports, completed workplace inspection checklists</li> <li>• reports from work group members, supervisor</li> </ul> <p>Processes that could be used as evidence include:</p> <ul style="list-style-type: none"> <li>• how contributions were made to consultative processes</li> <li>• how hazard inspections were carried out</li> <li>• how incident investigations reports were completed</li> </ul> <p>Access and equity considerations:</p> <ul style="list-style-type: none"> <li>• All assessment should be applied with respect to relevant work related access and equity issues</li> <li>• Competence should reflect an ability to work in a culturally diverse environment</li> <li>• Assessors and trainers must take into account relevant access and equity issues, in particular relating to factors impacting on Aboriginal and/or Torres Strait Islander clients and communities.</li> </ul>
<b>Method of assessment</b>	This unit should be assessed together with other units of competency relevant to the function or work role.
<b>Guidance information for assessment</b>	To ensure consistency in one's performance, competency should be demonstrated on more than one occasion over a period of time in order to cover a variety of circumstances, cases and responsibilities, and where possible, over a number of assessment activities.

## Range Statement

### RANGE STATEMENT

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.

#### Hazards

Hazards are:

- a source or situation with the potential for harm in terms of human injury or ill-health, damage to property, the environment, or a combination of these

#### Specific hazards

Specific hazards may include, but are not limited to:

- chemicals
- bodily fluids
- sharps
- noise
- manual handling
- work posture
- underfoot hazards
- moving parts of machinery
- cytotoxic medicines and waste

#### Other workplace hazards

Other workplace hazards may include:

- occupational violence
- stress
- fatigue
- bullying

#### Risks

Risks, in relation to any hazard, means:

- the probability and consequences of injury, illness or damage resulting from exposure to a hazard

#### Residual risk

Residential risk is:

- the risk which remains after controls have been implemented

#### Personal protective equipment

Personal protective equipment refers to:

- equipment worn by a person to provide

<b>RANGE STATEMENT</b>	
	<p>protection from hazards, by providing a physical barrier between the person and the hazard and may include:</p> <ul style="list-style-type: none"> <li>• head protection</li> <li>• face and eye protection</li> <li>• respiratory protection</li> <li>• hearing protection</li> <li>• hand protection</li> <li>• clothing and footwear</li> </ul>
<b>Incidents</b>	<p>Incidents include:</p> <ul style="list-style-type: none"> <li>• any event that has caused, or has the potential for, injury, ill-health or damage</li> </ul>
<b>Designated personnel</b>	<p>Designated personnel may include:</p> <ul style="list-style-type: none"> <li>• team leaders</li> <li>• supervisors</li> <li>• OHS representatives</li> <li>• OHS committee members</li> <li>• managers</li> <li>• organisation OHS personnel</li> <li>• other persons designated by the organisation</li> <li>• employers in office based practice</li> </ul>
<b>OHS housekeeping</b>	<p>OHS housekeeping includes:</p> <ul style="list-style-type: none"> <li>• workplace and personal routines designed to improve health and safety, for example, cleaning up spills, keeping walkways, exits and traffic areas clear</li> </ul>
<b>Emergency situations</b>	<p>Emergency situations may include:</p> <ul style="list-style-type: none"> <li>• any abnormal or sudden event that requires immediate action, such as: <ul style="list-style-type: none"> <li>• serious injury events</li> <li>• events requiring evacuation</li> <li>• fires and explosions</li> <li>• hazardous substance and chemical spills</li> <li>• explosion and bomb alerts</li> <li>• security emergencies, such as armed robberies, intruders and disturbed persons</li> <li>• internal emergencies, such as loss of power or water supply and structural collapse</li> </ul> </li> </ul>

RANGE STATEMENT	
	<ul style="list-style-type: none"><li>external emergencies and natural disasters, such as flood, storm and traffic accident impacting on the organisation</li></ul>

## Unit Sector(s)

Unit sector	Occupational health and safety
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## Competency field

Competency field	
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## Co-requisite units

Co-requisite units		

## FDFOHS3001A Contribute to OHS processes

### Modification History

Not applicable.

### Unit Descriptor

<b>Unit descriptor</b>	This unit specifies the workplace performance required by an employee to contribute to occupational health and safety (OHS) processes where there is responsibility for own work outputs and possibly limited responsibility for the work output of others.
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### Application of the Unit

<b>Application of the unit</b>	<p>This unit is intended for application by a skilled worker who contributes to team outcomes. The team may be a designated operational team or a larger work group.</p> <p>Workers are likely to perform work activities requiring a range of well developed skills where some discretion and judgment is required.</p> <p>Application of this unit should be contextualised to reflect any specific workplace risks, hazards and associated safety practices.</p>
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### Licensing/Regulatory Information

Not applicable.

### Pre-Requisites

<b>Prerequisite units</b>		



<b>Prerequisite units</b>		

## Employability Skills Information

<b>Employability skills</b>	This unit contains employability skills.
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## Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.	Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.
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## Elements and Performance Criteria

<b>ELEMENT</b>	<b>PERFORMANCE CRITERIA</b>
1. Plan and conduct work safely	<p>1.1. Work is planned in accordance with relevant provisions of OHS legislation, standards, codes of practice/compliance codes, guidance material and workplace safe working procedures</p> <p>1.2. Hazards are identified as part of work planning and work process</p> <p>1.3. Identified hazards are addressed prior to starting work using judgement within defined scope of responsibilities</p> <p>1.4. Inadequacies in control measures are reported according to organisation procedures</p> <p>1.5. Incidents and injuries are reported in line with organisation policies and procedures</p> <p>1.6. OHS housekeeping is undertaken in work area</p>
2. Support safe work practices in work area	<p>2.1. Information on safe work practices and safety issues in the workplace is shared with members of the work group</p>

ELEMENT	PERFORMANCE CRITERIA
	<p>2.2. The OHS practices of less experienced members of the workgroup are checked and support provided as required to ensure safe work practices are followed</p> <p>2.3. Members of the workgroup are supported to accurately record incidents and complete associated workplace documentation according to organisation procedures</p>
3. Contribute to OHS participative processes	<p>3.1. OHS issues are raised in accordance with organisation procedures</p> <p>3.2. Workplace meetings, workplace inspections or other consultative activities are contributed to in a constructive manner to improve safety</p> <p>3.3. Knowledge of roles and responsibilities of OHS representatives and OHS committees is applied</p>
4. Contribute to hazard identification, OHS risk assessment and risk control activities	<p>4.1. Identified hazards and inadequacies in risk controls are reported</p> <p>4.2. The workplace is checked for hazards using itemised checklists in accordance with work procedures</p> <p>4.3. Risk assessments are contributed to</p> <p>4.4. Input to development and implementation of control measures is provided, with reference to the hierarchy of control</p>
5. Participate in the control of emergency situations	<p>5.1. Emergency signals and alarms are identified and responded to appropriately</p> <p>5.2. Initial action to control/confine emergency is taken according to organisation procedures, and taking account of the nature and scope of the emergency</p> <p>5.3. Emergency response procedures are implemented within scope of training and competence</p>

## Required Skills and Knowledge

### REQUIRED SKILLS AND KNOWLEDGE

This section describes the skills and knowledge required for this unit.

#### Required skills

##### *Ability to:*

- check the workplace for hazards and risks using an itemised checklist

## REQUIRED SKILLS AND KNOWLEDGE

- provide advice and feedback in a constructive and supportive manner
- communicate with others
- identify emergency situations
- work with others

### Required knowledge

#### *Knowledge of:*

- applicable commonwealth, state or territory OHS legislation, regulations, standards, codes of practice and industry standards/guidance notes relevant to own work, role and responsibilities
- safety signs and their meanings, including signs for:
  - personal protective equipment
  - emergency equipment
  - dangerous goods class signs
  - specific hazards such as sharps, radiation
- the difference between hazard and risk
- sources of OHS information within the workplace with knowledge of external sources of OHS information
- nature of common workplace hazards, such as chemicals, bodily fluids, noise, manual handling, work postures, underfoot hazards and moving parts of machinery
- basic hazard identification procedures, such as workplace inspections and review of workplace data
- standard emergency signals, alarms and required responses
- principles of basic risk assessment
- hierarchy of control and its application
- personal protective equipment requirements, including use, storage and maintenance
- roles and responsibilities of employees, supervisors and managers in the workplace
- roles and responsibilities of OHS representatives and OHS committees
- workplace specific information, including:
  - hazards of the particular work environment
  - hazard identification procedures relevant to the hazards in their workplace
  - designated person for raising OHS issues
  - organisation and work procedures particularly those related to performance of own work, specific hazards and risk control, reporting of hazards, incidents and injuries and OHS issue resolution, consultation, use of personal protective equipment and emergency response
  - potential emergency situations, alarms and signals and required response
- the legal rights and responsibilities of the workplace parties

## Evidence Guide

### EVIDENCE GUIDE

The Evidence Guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.

#### Overview of assessment

Assessment must be carried out in a manner that recognises the cultural and literacy requirements of the assessee and is appropriate to the work performed. Competence in this unit must be achieved in accordance with food safety standards and regulations

#### Critical aspects for assessment and evidence required to demonstrate competency in this unit

- To demonstrate competence in this unit, a candidate must be able to provide evidence of contribution to OHS processes in the workplace. This includes:
  - addressing their own health and safety
  - addressing that of others who may be affected by their actions
  - supporting members of the workgroup who may be less experienced in the workplace in regard to OHS matters
  - taking some initiative to address hazards and manage risks at a systemic level
- Evidence gathered by an assessor to determine competence will include practical demonstration of competence, including:
  - workplace demonstration, simulation exercise, scenario or role play
  - indirect evidence from workplace supervisor reports, workplace documentation, and written responses to problems, scenarios and case studies
- Evidence of workplace performance over time must be obtained to inform a judgement of competence.

#### Context of and specific resources for assessment

Products that could be used as evidence include:

- verbal and written responses to verbal, pictorial or physical scenarios
- demonstrated response to scenarios, simulations, role plays
- completed hazard or incident reports, completed workplace inspection checklists
- reports from workgroup members, supervisors

Processes that could be used as evidence include:

<b>EVIDENCE GUIDE</b>	
	<ul style="list-style-type: none"> <li>• how workplace checks/inspections are carried out</li> <li>• how hazards are addressed</li> <li>• how mentoring of fellow workgroup members is undertaken</li> <li>• how incident investigations reports were completed</li> </ul> <p>Access and equity considerations:</p> <ul style="list-style-type: none"> <li>• all assessment should be applied with respect to relevant work related access and equity issues</li> <li>• competence should reflect an ability to work in a culturally diverse environment</li> <li>• assessors and trainers must take into account relevant access and equity issues, in particular relating to factors impacting on Aboriginal and/or Torres Strait Islander clients and communities</li> </ul>
<b>Method of assessment</b>	This unit should be assessed together with other units of competency relevant to the function or work role.
<b>Guidance information for assessment</b>	To ensure consistency in one's performance, competency should be demonstrated on more than one occasion over a period of time in order to cover a variety of circumstances, cases and responsibilities, and where possible, over a number of assessment activities.

## Range Statement

<b>RANGE STATEMENT</b>	
<p>The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.</p>	
<b>Hazard identification</b>	<p>Hazard identification is</p> <ul style="list-style-type: none"> <li>• the process of identifying sources of harm, and may be required: <ul style="list-style-type: none"> <li>• before new forms of work and organisation of work are implemented</li> <li>• before changes are made to workplace,</li> </ul> </li> </ul>

<b>RANGE STATEMENT</b>	
	<p>equipment, work processes or work arrangements</p> <ul style="list-style-type: none"> <li>• as part of planning major tasks or activities, such as equipment shutdowns</li> <li>• following an incident report</li> <li>• when new knowledge becomes available</li> <li>• at regular intervals during normal operations</li> <li>• prior to disposal of equipment, or materials</li> </ul>
<b>Hazards</b>	<p>Hazards refer to:</p> <ul style="list-style-type: none"> <li>• a source or situation with the potential for harm in terms of human injury or ill-health, damage to property, the environment, or a combination of these</li> </ul>
<b>Specific hazards</b>	<p>Specific hazards may include, but are not limited to:</p> <ul style="list-style-type: none"> <li>• chemicals</li> <li>• bodily fluids</li> <li>• sharps</li> <li>• noise</li> <li>• manual handling</li> <li>• work posture</li> <li>• underfoot hazards</li> <li>• moving parts of machinery</li> <li>• cytotoxic medicines and waste</li> </ul>
<b>Other workplace hazards</b>	<p>Other workplace hazards may include:</p> <ul style="list-style-type: none"> <li>• occupational violence</li> <li>• stress</li> <li>• fatigue</li> <li>• bullying</li> </ul>
<b>Risks</b>	<p>Risks, in relation to any hazard, means:</p> <ul style="list-style-type: none"> <li>• the probability and consequences of injury, illness or damage resulting from exposure to a hazard</li> </ul>
<b>Residual risk</b>	<p>Residual risk is:</p> <ul style="list-style-type: none"> <li>• the risk which remains after controls have been implemented</li> </ul>

<b>RANGE STATEMENT</b>	
<b>Organisation procedures</b>	<p>Organisation procedures include:</p> <ul style="list-style-type: none"> <li>• policies and procedures underpinning the management of OHS, including: <ul style="list-style-type: none"> <li>• hazard, incident and injury reporting</li> <li>• hazard identification, risk assessment and control</li> <li>• consultation and participation</li> <li>• quality system documentation</li> </ul> </li> </ul>
<b>OHS housekeeping</b>	<p>OHS housekeeping includes:</p> <ul style="list-style-type: none"> <li>• workplace and personal routines designed to improve health and safety, for example, cleaning up spills, keeping walkways, exits and traffic areas clear</li> </ul>
<b>Information</b>	<p>Information includes:</p> <ul style="list-style-type: none"> <li>• hazard, incident and investigation reports</li> <li>• workplace inspection reports</li> <li>• incident investigation reports</li> <li>• minutes of meetings</li> <li>• job safety analyses and risk assessments</li> <li>• material safety data sheets (MSDS) and registers</li> <li>• employees handbooks</li> <li>• manufacturers' manuals and specifications</li> <li>• information from OHS representatives</li> <li>• reports from OHS committee</li> <li>• information from external sources on hazards and risk relevant to the work group</li> </ul>
<b>Work procedures</b>	<p>Work procedures include:</p> <ul style="list-style-type: none"> <li>• standard operating procedures</li> <li>• batch specifications</li> <li>• operator or manufacturer manuals</li> <li>• procedures for selecting, fitting, using and maintaining personal protective equipment</li> </ul>
<b>Incidents</b>	<p>Incidents include:</p> <ul style="list-style-type: none"> <li>• any event that has caused or has the potential for injury, ill-health or damage</li> </ul>
<b>Other workplace documentation</b>	<p>Other workplace documentation may include:</p>

<b>RANGE STATEMENT</b>	
	<ul style="list-style-type: none"> <li>• job checklists and schedules</li> <li>• workplace inspection checklists</li> </ul>
<b>Risk controls</b>	<p>Risk controls include:</p> <ul style="list-style-type: none"> <li>• the devices and methods to, where practicable, eliminate the hazard or, where this is not practicable, minimise the risk associated with the hazard</li> </ul>
<b>Designated persons</b>	<p>Designated persons may include:</p> <ul style="list-style-type: none"> <li>• team leaders</li> <li>• supervisors</li> <li>• OHS representatives</li> <li>• OHS committee members</li> <li>• managers</li> <li>• organisation OHS personnel</li> <li>• other persons designated by the organisation</li> </ul>
<b>Hierarchy of control</b>	<p>Hierarchy of control is the preferred order of control measures for OHS risks:</p> <ul style="list-style-type: none"> <li>• elimination (e.g. controlling the hazard at the source)</li> <li>• substitution (e.g. replacing one substance or activity at the source)</li> <li>• engineering control (e.g. installing guards on machinery)</li> <li>• administration control (e.g. policies and procedures for safe work practices)</li> <li>• personal protective equipment (e.g. respirators and ear plugs)</li> </ul>
<b>Emergency signals and alarms</b>	<p>Emergency signals and alarms may include:</p> <ul style="list-style-type: none"> <li>• machinery malfunction alarms</li> <li>• fire alarms</li> <li>• evacuation alarms or announcements</li> <li>• reversing beepers on mobile plant</li> </ul>
<b>Emergencies</b>	<p>Emergency may include any abnormal or sudden event that requires immediate action, such as:</p> <ul style="list-style-type: none"> <li>• serious injury events</li> <li>• events requiring evacuation</li> <li>• fires and explosions</li> <li>• hazardous substance and chemical spills</li> </ul>



**RANGE STATEMENT**

	<ul style="list-style-type: none"> <li>• explosion and bomb alerts</li> <li>• security emergencies, such as armed robberies, intruders and disturbed persons</li> <li>• internal emergencies, such as loss of power or water supply and structural collapse</li> <li>• external emergencies and natural disasters, such as flood, storm and traffic accident impacting on the organisation</li> </ul>
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**Unit Sector(s)**

<b>Unit sector</b>	Occupational health and safety
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**Competency field**

<b>Competency field</b>	
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**Co-requisite units**

<b>Co-requisite units</b>		

## FDFOHS4002A Maintain OHS processes

### Modification History

November 2011: minor typographical error corrected.

### Unit Descriptor

<b>Unit descriptor</b>	This unit of competency specifies the workplace performance required by an employee with supervisory responsibilities, to maintain organisation OHS processes
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### Application of the Unit

<b>Application of the unit</b>	<p>This unit is intended to be applied at the level of team leader or supervisor</p> <p>Workers are likely to perform a broad range of complex and non-routine activities together with leadership and guidance in planning and organising activities for a small work group</p> <p>Application of this unit should be contextualised to reflect any specific workplace risks, hazards and associated safety practices</p>
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### Licensing/Regulatory Information

Not applicable.

### Pre-Requisites

<b>Prerequisite units</b>		

## Employability Skills Information

<b>Employability skills</b>	This unit contains employability skills.
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## Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.	Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.
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## Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Provide information to the work group	<p>1.1. Relevant requirements of OHS legislation, standards, codes of practice/compliance codes, guidance material and safe working procedures and practices are clearly and accurately explained to the work group</p> <p>1.2. Information on organisation policies and procedures is provided in a readily accessible manner and clearly explained to the work group</p> <p>1.3. Roles and responsibilities of workplace OHS representatives and OHS committees, supervisors and managers are clearly explained</p> <p>1.4. Information on hazards, the outcomes of risk assessments, and required risk controls is provided to the work group, in an accessible and understandable format</p>
2. Ensure others are able to implement safe work practices	<p>2.1. Personal protective equipment appropriate to the work is available and functional</p> <p>2.2. Processes are implemented to confirm that others in the work group can identify hazards, assess risks and required risk controls and are following safe work practices, and organisation policies and procedures</p> <p>2.3. OHS training needs are identified and either addressed or reported to those with control</p>

ELEMENT	PERFORMANCE CRITERIA
3. Implement OHS participative processes	<p>3.1. Work group is consulted and advice in relation to OHS matters provided relevant to their work</p> <p>3.2. OHS issues raised are dealt with promptly, and in accordance with organisation procedures and legislative requirements, or referred to appropriate personnel</p> <p>3.3. Outcomes of consultation regarding OHS are recorded and promptly communicated to the work group</p>
4. Monitor compliance with work procedures	<p>4.1. Work procedures are checked for availability, clarity and completeness, and any deficiencies addressed or reported to appropriate persons</p> <p>4.2. Any deviations from procedures are identified and addressed or reported to appropriate persons</p> <p>4.3. Hazard identification and reporting processes are evaluated for effectiveness and any deficiencies addressed or reported to appropriate persons</p> <p>4.4. OHS housekeeping practices are monitored to ensure that workplace standards are maintained, and action taken to address any deficiencies</p> <p>4.5. Behaviour is consistent with organisation safe working procedures and practices</p>
5. Implement hazard identification, risk assessment and risk control procedures	<p>5.1. Hazards are identified, assessed and eliminated with residual risk reported according to organisation procedures</p> <p>5.2. Risk assessments are conducted</p> <p>5.3. Develop control measures are developed taking account of the hierarchy of control</p> <p>5.4. Outcomes of risk assessments and identified risk controls are implemented and supported</p> <p>5.5. Deficiencies in ohs risk controls are identified, addressed and/or reported according to organisation procedures</p> <p>5.6. Personal professional limitations are identified and expert advice sought as required</p>
6. Implement organisation procedures for maintaining OHS records	<p>6.1. Feedback is obtained to ensure that workgroup is aware of organisation reporting requirements</p> <p>6.2. OHS records are reviewed to confirm that they are completed in an accurate, thorough and timely manner in accordance with legislative and organisation requirements</p> <p>6.3. Aggregate information and data from records is used</p>

ELEMENT	PERFORMANCE CRITERIA
	to identify hazards and monitor risk controls
7. Implement emergency procedures	<p>7.1. Feedback is obtained to ensure that emergency procedures are available and known by the work group</p> <p>7.2. Processes are implemented to ensure that emergency equipment is available and routinely checked for functionality</p> <p>7.3. Processes are implemented to ensure that others in the workgroup are able to respond appropriately to emergencies</p> <p>7.4. Investigations are conducted or contributed to in order to identify causes of emergencies</p> <p>7.5. Control measures are identified, implemented or supported to prevent recurrence and minimise risk of emergencies</p>

## Required Skills and Knowledge

### REQUIRED SKILLS AND KNOWLEDGE

This section describes the skills and knowledge required for this unit.

#### Required skills

##### *Ability to:*

- use technical skills to access OHS information
- use language and literacy skills to interpret OHS documentation
- communicate with personnel in the work team, other work teams, managers and experts advisers
- supervise and direct staff
- conduct team meetings
- relate to people from a range of social, cultural and ethnic backgrounds and physical and mental abilities

#### Required knowledge

##### *Knowledge of:*

- the difference between hazard and risk
- sources of OHS information both internal and external to the workplace
- general duty requirements of OHS legislation and also regulatory requirements relevant to the particular industry/type of work site

**REQUIRED SKILLS AND KNOWLEDGE**

- the roles and responsibilities of employees, supervisors and managers in the workplace
- nature of common workplace hazards, such as chemicals, noise, manual handling, work postures, underfoot hazards and moving parts of machinery
- guidance material, including codes of practice/compliance codes relevant to the particular industry/type of work site
- hazard identification procedures, such as workplace inspections and review of workplace data
- principles of risk management including the hierarchy of control and its application
- personal protective equipment requirements, including use, storage and maintenance
- legislative requirements for record keeping and reporting
- standards and guidelines related to emergency procedures
- roles and responsibilities of OHS representatives and OHS committees
- workplace specific information, including:
  - hazards of the particular work environment
  - hazard identification procedures relevant to the hazards in their work place
  - risk controls for specific hazards
  - designated person for raising OHS issues
  - organisation procedures related to OHS, including hazard, incident and injury reporting, hazard identification, risk assessment and control, consultation and participation, incident investigation and record keeping
  - work procedures related to the work of the team/work group including use of personal protective equipment and emergency response
  - potential emergency situations, alarms and signals and required response

**Evidence Guide****EVIDENCE GUIDE**

The Evidence Guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.

**Overview of assessment**

Assessment must be carried out in a manner that recognises the cultural and literacy requirements of the assessee and is appropriate to the work performed. Competence in this unit must be achieved in accordance with food safety standards and regulations.

**Critical aspects for assessment and**

- To demonstrate competence in this unit, a candidate

<b>EVIDENCE GUIDE</b>	
<b>evidence required to demonstrate competency in this unit</b>	<p>must be able to provide evidence of:</p> <ul style="list-style-type: none"> <li>maintaining OHS processes in the workplace particularly in relation to the supervision of a small workgroup</li> <li>Evidence gathered by an assessor to determine competence will include: <ul style="list-style-type: none"> <li>written or verbal responses to scenarios and case studies</li> <li>provision of workplace examples</li> <li>evidence from workplace supervisor reports</li> <li>portfolio of workplace documentation</li> </ul> </li> <li>Evidence of workplace performance over time must be obtained to inform a judgement of competence.</li> </ul>
<b>Context of and specific resources for assessment</b>	<p>Products that could be used as evidence include:</p> <ul style="list-style-type: none"> <li>verbal and written responses to verbal, written or physical scenarios</li> <li>completed examples of information provided to work group, risk assessments, risk controls developed, reports to managers, reports on workplace inspections, audits, emergency exercises</li> <li>reports from work group members, supervisor</li> </ul> <p>Processes that could be used as evidence include:</p> <ul style="list-style-type: none"> <li>how information transfer was organised and conducted</li> <li>how risk assessments were conducted</li> <li>how deviations from workplace procedures were addressed</li> </ul> <p>Access and equity considerations:</p> <ul style="list-style-type: none"> <li>all assessment should be applied with respect to relevant work related access and equity issues</li> <li>competence should reflect an ability to work in a culturally diverse environment</li> <li>assessors and trainers must take into account relevant access and equity issues, in particular relating to factors impacting on Aboriginal and/or Torres Strait Islander clients and communities.</li> </ul>
<b>Method of assessment</b>	This unit should be assessed together with other units of competency relevant to the function or work role.
<b>Guidance information for</b>	To ensure consistency in one's performance, competency

**EVIDENCE GUIDE****assessment**

should be demonstrated on more than one occasion over a period of time in order to cover a variety of circumstances, cases and responsibilities, and where possible, over a number of assessment activities.

**Range Statement****RANGE STATEMENT**

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.

**OHS legislation**

OHS legislation includes:

- commonwealth, state and territory OHS Acts and regulations

**Standards**

Standards include:

- documents produced by national bodies, OHS regulators or industry bodies, that prescribe preventative action to avert occupational deaths, injuries and diseases
- standards are of an advisory nature only, except where a law adopts the standard and thus makes it mandatory
- they may be called up as evidence in court or other enforcement action

**Codes of practice/compliance codes**

Codes of practice/compliance codes are:

- documents generally prepared to provide advice to employers and workers, of an acceptable way of achieving standards
- codes of practice/compliance codes may:
  - be incorporated into regulations
  - not relate to a standard
  - be called up as evidence in court or other enforcement action

**Guidance material**

Guidance material:



<b>RANGE STATEMENT</b>	
	<ul style="list-style-type: none"> <li>• is an advisory technical document, providing detailed information for use by unions, employers, management, health and safety committee members and representatives, safety officers and others requiring guidance</li> <li>• advises on 'what to do' and 'how to do it'</li> <li>• has no legal standing</li> </ul>
<b>Organisation policies and procedures include:</b>	<p>Organisation policies and procedures include:</p> <ul style="list-style-type: none"> <li>• policies and procedures underpinning the management of OHS, including: <ul style="list-style-type: none"> <li>• hazard, incident and injury reporting</li> <li>• hazard identification, risk assessment and control</li> <li>• consultation and participation</li> <li>• incident investigation</li> <li>• quality system documentation</li> </ul> </li> </ul>
<b>Hazards</b>	<p>Hazards refer to:</p> <ul style="list-style-type: none"> <li>• a source or situation with the potential for harm in terms of human injury or ill-health, damage to property, the environment, or a combination of these</li> </ul>
<b>Specific safety related hazards</b>	<p>Specific safety related hazards may include but are not limited to:</p> <ul style="list-style-type: none"> <li>• chemicals</li> <li>• bodily fluids</li> <li>• sharps</li> <li>• noise</li> <li>• manual handling</li> <li>• work posture</li> <li>• underfoot hazards</li> <li>• moving parts of machinery</li> <li>• cytotoxic medicines and waste</li> </ul>
<b>Other workplace hazards</b>	<p>Other workplace hazards may include:</p> <ul style="list-style-type: none"> <li>• occupational violence</li> <li>• stress</li> <li>• fatigue</li> <li>• bullying</li> </ul>
<b>Risks</b>	<p>Risks, in relation to any hazard, means:</p>

<b>RANGE STATEMENT</b>	
	<ul style="list-style-type: none"> <li>the probability and consequences of injury, illness or damage resulting from exposure to a hazard</li> </ul>
<b>Risk assessments</b>	<p>Risk assessments involve analysing a hazard to:</p> <ul style="list-style-type: none"> <li>identify factors influencing the risk and the range of potential consequences, such as:</li> <li>effectiveness of existing controls</li> <li>likelihood of each consequence considering exposure and hazard level</li> </ul>
<b>Risk controls</b>	<p>Risk controls include:</p> <p>The devices and methods to, where practicable, eliminate the hazard or, where this is not practicable, minimise the risk associated with the hazard</p>
<b>Personal protective equipment</b>	<p>Personal protective equipment includes:</p> <ul style="list-style-type: none"> <li>equipment worn by a person to provide protection from hazards, by providing a physical barrier between the person and the hazard and may include: <ul style="list-style-type: none"> <li>head protection</li> <li>face and eye protection</li> <li>respiratory protection</li> <li>hearing protection</li> <li>hand protection</li> <li>clothing and footwear</li> </ul> </li> </ul>
<b>Work procedures</b>	<p>Work procedures include:</p> <ul style="list-style-type: none"> <li>standard operating procedures</li> <li>batch specifications</li> <li>operator or manufacturer manuals</li> <li>procedures for selecting, fitting, using and maintaining personal protective equipment</li> </ul>
<b>Hazard identification</b>	<p>Hazard identification is:</p> <ul style="list-style-type: none"> <li>the process of identifying sources of harm and may be required: <ul style="list-style-type: none"> <li>at design or pre purchase of equipment and materials</li> <li>at commissioning or pre-implementation of new processes or practices</li> </ul> </li> </ul>

<b>RANGE STATEMENT</b>	
	<ul style="list-style-type: none"> <li>• before new forms of work and organisation of work are implemented</li> <li>• before changes are made to workplace, equipment, work processes or work arrangements</li> <li>• as part of planning major tasks or activities, such as equipment shutdowns</li> <li>• following an incident report</li> <li>• when new knowledge becomes available</li> <li>• at regular intervals during normal operations</li> <li>• prior to disposal of equipment, buildings or materials</li> </ul>
<b>Reporting processes</b>	<p>Reporting processes include:</p> <ul style="list-style-type: none"> <li>• hazards reports</li> <li>• maintenance requests and reports</li> <li>• reports on completion of inspections</li> <li>• incident reports</li> <li>• reports of non-compliance with work procedures</li> <li>• reporting on progress of action plans</li> </ul>
<b>OHS housekeeping practices</b>	<p>OHS housekeeping practices address items, such as:</p> <ul style="list-style-type: none"> <li>• workplace cleanliness and tidiness</li> <li>• unobstructed walkways and emergency exits</li> <li>• underfoot conditions</li> <li>• work space around equipment and machinery</li> <li>• functioning services, such as lighting, air flow and ventilation, and emergency lighting</li> <li>• storage areas including manual handling issues, storage, personal protective equipment</li> <li>• signage</li> </ul>
<b>Residual risk</b>	<p>Residual risk is:</p> <ul style="list-style-type: none"> <li>• the risk which remains after controls have been implemented</li> </ul>
<b>Hierarchy of control</b>	<p>Hierarchy of control is the preferred order of control measures for OHS risks:</p> <ul style="list-style-type: none"> <li>• elimination (e.g. controlling the hazard at the source)</li> </ul>

<b>RANGE STATEMENT</b>	
	<ul style="list-style-type: none"> <li>• substitution (e.g. replacing one substance or activity at the source)</li> <li>• engineering control (e.g. installing guards on machinery)</li> <li>• administration control (e.g. policies and procedures for safe work practices)</li> <li>• personal protective equipment (e.g. respirators and ear plugs)</li> </ul>
<b>Expert advice</b>	<p>Expert advice can be obtained from:</p> <ul style="list-style-type: none"> <li>• persons either internal or external to the organisation including: <ul style="list-style-type: none"> <li>• safety professionals</li> <li>• ergonomists</li> <li>• occupational hygienists</li> <li>• audiologists</li> <li>• safety engineers</li> <li>• toxicologists</li> <li>• occupational health professionals</li> <li>• OHS representatives</li> <li>• OHS committees</li> </ul> </li> <li>• other persons providing specific technical knowledge or expertise in areas related to OHS, including: <ul style="list-style-type: none"> <li>• risk managers</li> <li>• health professionals</li> <li>• injury management advisors</li> <li>• regulatory bodies</li> <li>• legal practitioners with experience in OHS</li> <li>• engineers (e.g. design, acoustic, mechanical and civil)</li> <li>• security and emergency response personnel</li> <li>• workplace trainers and assessors</li> <li>• maintenance and trade persons</li> </ul> </li> </ul>
<b>OHS records</b>	<p>OHS records may include:</p> <ul style="list-style-type: none"> <li>• hazard, incident and investigation reports</li> <li>• workplace inspection reports</li> <li>• first aid records</li> <li>• minutes of meetings</li> </ul>

<b>RANGE STATEMENT</b>	
	<ul style="list-style-type: none"> <li>• job safety analyses, safe work method statements and risk assessments</li> <li>• material safety data sheets (MSDS) and registers</li> <li>• employees handbooks</li> <li>• plant and equipment operation records, including those relevant to registered plant</li> <li>• maintenance and testing reports</li> <li>• training records</li> <li>• environmental monitoring records</li> <li>• health surveillance records</li> </ul>
<b>Legislative requirements for record keeping</b>	<p>Legislative requirements for record keeping include those specified under:</p> <ul style="list-style-type: none"> <li>• OHS legislation for: <ul style="list-style-type: none"> <li>• serious incident and injury reporting</li> <li>• registered plant</li> <li>• hazardous substances and dangerous goods</li> <li>• environmental monitoring</li> <li>• health surveillance</li> </ul> </li> <li>• Privacy legislation</li> </ul>
<b>Emergencies</b>	<p>Emergencies may include any abnormal or sudden event that requires immediate action, such as:</p> <ul style="list-style-type: none"> <li>• serious injury events</li> <li>• events requiring evacuation</li> <li>• fires and explosions</li> <li>• hazardous substance and chemical spills</li> <li>• explosion and bomb alerts</li> <li>• security emergencies, such as armed robberies, intruders and disturbed persons</li> <li>• internal emergencies, such as loss of power or water supply and structural collapse</li> <li>• external emergencies and natural disasters, such as flood, storm and traffic accident impacting on the organisation</li> </ul>
<b>Emergency equipment</b>	<p>Emergency equipment is equipment required as part of the emergency response by the organisation and includes:</p> <ul style="list-style-type: none"> <li>• first aid equipment</li> <li>• eye wash shower or portable eye washes</li> </ul>

<b>RANGE STATEMENT</b>	
	<ul style="list-style-type: none"> <li>• fire extinguishers and equipment</li> <li>• communication equipment</li> <li>• evacuation alarms</li> <li>• evacuation equipment, especially that for disabled persons</li> <li>• torches</li> <li>• items of clothing, such as coloured hats and vests</li> </ul>
<b>Incidents</b>	<p>Incidents include:</p> <ul style="list-style-type: none"> <li>• any event that has caused or has the potential for injury, ill-health or damage</li> </ul>

## Unit Sector(s)

<b>Unit sector</b>	Occupational health and safety
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## Competency field

<b>Competency field</b>	
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## Co-requisite units

<b>Co-requisite units</b>		

## FDFOP1003A Carry out manual handling tasks

### Modification History

Not applicable.

### Unit Descriptor

<b>Unit descriptor</b>	This unit of competency covers the skills and knowledge required to participate in workplace processes to identify manual handling requirements of a work function, identify manual handling risks, assess level of risk and apply appropriate risk elimination or control measures.
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### Application of the Unit

<b>Application of the unit</b>	This unit applies to a worker required to conduct lifting or moving of items as part of their work role. It is designed to support existing workplace programs to manage occupational health and safety (OHS) hazards by enabling employees to contribute to risk assessment and control. It may include the use of related equipment, such as trolleys, pallet jacks and other manual handling aids.
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### Licensing/Regulatory Information

Not applicable.

### Pre-Requisites

<b>Prerequisite units</b>		

## Employability Skills Information

<b>Employability skills</b>	This unit contains employability skills.
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## Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.	Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.
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## Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Participate in processes to identify and assess manual handling	1.1. Manual handling components of a work function are identified 1.2. Manual handling risks are identified and reported in accordance with hazard and incident reporting procedures 1.3. Risks to self and others of manual handling are assessed within level of responsibility
2. Contribute to manual handling risk minimisation	2.1. Equipment is available and in a fit state for use 2.2. Clothing and footwear, including personal protective clothing, does not contribute to manual handling risk
3. Plan and conduct manual handling	3.1. Sources of risk are identified 3.2. Workplace layout and environment is modified within area of control to minimise manual handling risk 3.3. Work tasks are modified within area of control to minimise the risk of injury 3.4. Manual handling aids are used according to workplace instructions 3.5. Movement and postures used minimise the risk of injury within the limits of the work environment and the demands of the task



## Required Skills and Knowledge

### REQUIRED SKILLS AND KNOWLEDGE

This section describes the skills and knowledge required for this unit.

#### Required skills

##### *Ability to:*

- access workplace information relating to use of equipment and other task requirements
- identify any manual handling requirements of the work function and specifically any manual handling risks
- report manual handling risks using appropriate hazard and incident reporting procedures
- identify manual handling risks, including:
  - risks to self and others
  - any existing arrangements to control risks
- identify scope of responsibility to eliminate or control level of risk (for hazards outside scope of responsibility, identify and use the appropriate reporting and consultation arrangements to address hazards)
- participate in consultative processes to evaluate options for removing or controlling manual handling risks, including applying hierarchy of control
- select appropriate equipment and techniques to suit manual handling task within workplace procedures
- inspect manual handling-related equipment/aids/tools to confirm fitness for use, including identifying and correcting and/or reporting signs of wear and tear
- follow procedures to complete manual handling tasks to maintain safety of self and others
- use oral communication skills/language competence to fulfil the job role as specified by the organisation, including questioning, active listening, asking for clarification and seeking advice from supervisor
- work cooperatively within a culturally diverse workforce

#### Required knowledge

##### *Knowledge of:*

- different types of manual handling activities, including lifting, reaching, pushing, pulling, holding, restraining, throwing and carrying
- types of injuries that can result from manual handling
- aspects of manual handling that may be risks (hazard identification), such as:
  - repetitive or sustained application of force
  - repetitive or sustained awkward posture
  - repetitive or sustained movement
  - application of high force

## REQUIRED SKILLS AND KNOWLEDGE

- manual handling of live animals (related to handling of poultry)
- manual handling of unstable or unbalanced loads, such as liquids
- workplace procedures and responsibilities for identifying and reporting manual handling hazards
- factors to be considered when assessing manual handling risks relevant to work role (refer to workplace risk assessment sheets and code of practice advice where available), including:
  - postures
  - movements
  - force required
  - duration and frequency of manual handling activity
  - environmental conditions, such as hot and cold work environments
- procedures and responsibilities for conducting risk assessments of manual handling tasks
- typical options for eliminating or controlling manual handling risks associated with work functions, including principles of hierarchy of control and the advantages and disadvantages of different options
- types of equipment and/or techniques used to eliminate or reduce manual handling risks in the workplace, including when and how to use each type of technique/equipment relevant to manual handling tasks in work role
- level of authority to address OHS issues related to manual handling and related workplace arrangements for managing safety issues
- sources of advice on manual handling relevant to work function
- equipment available to assist manual handling, related inspections required to identify faulty equipment and related reporting procedures
- movement and postures that increase the risk of injury, and movements and postures to minimise the force in the body as applied to specific tasks in the workplace

## Evidence Guide

### EVIDENCE GUIDE

The Evidence Guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.

#### Overview of assessment

Assessment must be carried out in a manner that recognises the cultural and literacy requirements of the assessee and is appropriate to the work performed. Competence in this unit must be achieved in accordance

<b>EVIDENCE GUIDE</b>	
	with food safety standards and regulations.
<b>Critical aspects for assessment and evidence required to demonstrate competency in this unit</b>	<p>Evidence of ability to:</p> <ul style="list-style-type: none"> <li>• identify manual handling tasks required for work activity and associated risks</li> <li>• eliminate risk through movement, posture and effectively using equipment provided</li> <li>• modify work to eliminate or minimise risk</li> <li>• apply safe work procedures.</li> </ul>
<b>Context of and specific resources for assessment</b>	<p>Assessment must occur in a real or simulated workplace where the assessee has access to:</p> <ul style="list-style-type: none"> <li>• work procedures, including advice on manual handling requirements and safe work practices</li> <li>• workplace documentation and related advice, such as codes of practice to support OHS arrangements for hazard identification, risks assessment and control</li> <li>• materials and related equipment as appropriate for manual handling</li> <li>• information on equipment capacity and operating procedures where relevant</li> <li>• reporting and monitoring systems.</li> </ul>
<b>Method of assessment</b>	This unit should be assessed together with core units and other units of competency relevant to the function or work role.
<b>Guidance information for assessment</b>	To ensure consistency in one's performance, competency should be demonstrated on more than one occasion over a period of time in order to cover a variety of circumstances, cases and responsibilities, and where possible, over a number of assessment activities.

## Range Statement

<b>RANGE STATEMENT</b>
<p>The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and</p>

<b>RANGE STATEMENT</b>	
regional contexts) may also be included.	
<b>Policies and procedures</b>	Work is carried out according to company policies and procedures, legislation, regulations and industrial awards and agreements
<b>Workplace information</b>	Workplace information may include: <ul style="list-style-type: none"> <li>• standard operating procedures (SOPs)</li> <li>• OHS procedures</li> <li>• equipment manufacturers' advice</li> <li>• material safety data sheets (MSDS)</li> <li>• codes of practice and related advice</li> </ul>
<b>Equipment</b>	Equipment may include but is not limited to: <ul style="list-style-type: none"> <li>• trolleys</li> <li>• pallet jacks</li> <li>• conveyors,</li> <li>• vacuum lifters</li> <li>• other mechanical handling and lifting aids and equipment</li> </ul>
<b>Task-specific training</b>	Task specific training is provided as appropriate
<b>Contributions to manual handling risk minimisation</b>	Contributions to manual handling risk minimisation includes: <ul style="list-style-type: none"> <li>• reporting equipment requiring maintenance, especially wheeled equipment or other equipment where friction may increase force requirements</li> </ul>
<b>Changes to workplace layout and environment</b>	Changes to workplace layout and environment within area of control may include but not be limited to: <ul style="list-style-type: none"> <li>• changes in location of load, such as use of bench to not lift from floor</li> <li>• arrangement of items to eliminate above shoulder handling</li> <li>• placement of trolley</li> <li>• using sit stand stools</li> <li>• using task lighting</li> <li>• using a footrest</li> </ul>
<b>Task modifications within area of control</b>	Task modifications within area of control may include but are not limited to:

<b>RANGE STATEMENT</b>	
	<ul style="list-style-type: none"> <li>• changes to frequency, duration, number of objects handled</li> <li>• route selected</li> <li>• seeking assistance as appropriate</li> <li>• housekeeping to minimise obstacles</li> </ul>
<b>Assessment of risks and evaluation of control options according to the hierarchy of control</b>	Assessment of risks and evaluation of control options according to the hierarchy of control is carried out in consultation with others as required by workplace arrangements and regulatory requirements for risk assessment and control

## Unit Sector(s)

<b>Unit sector</b>	Operational
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## Competency field

<b>Competency field</b>	
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## Co-requisite units

<b>Co-requisite units</b>		

## FDFOP2003A Clean equipment in place

### Modification History

Not applicable.

### Unit Descriptor

<b>Unit descriptor</b>	This unit of competency covers the skills and knowledge required to prepare process equipment for cleaning in place (CIP) or in-line.
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### Application of the Unit

<b>Application of the unit</b>	<p>This unit applies to food processing equipment that is fixed in place and cannot be moved to a cleaning station. It requires the operator to initiate, monitor and control variables during cleaning. Where this is not a requirement of a CIP system, this unit may not be relevant.</p> <p>Where the operator is primarily responsible for cleaning and/or where they require a more detailed knowledge of cleaning and sanitation processes to carry out cleaning responsibilities, FDFOP2004A Clean and sanitise equipment, should be considered.</p>
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### Licensing/Regulatory Information

Not applicable.

### Pre-Requisites

<b>Prerequisite units</b>		

## Employability Skills Information

<b>Employability skills</b>	This unit contains employability skills.
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## Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.	Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.
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## Elements and Performance Criteria

<b>ELEMENT</b>	<b>PERFORMANCE CRITERIA</b>
1. Prepare for cleaning	1.1. Chemical stocks are available to meet cleaning and sanitation requirements 1.2. Services are confirmed as available and ready for operation 1.3. Equipment shutdown is planned and equipment is taken off-line for cleaning 1.4. Equipment and related valves and pipework are configured to confirm readiness for cleaning 1.5. The plant is set for the cleaning cycle
2. Operate and monitor the cleaning process	2.1. The cleaning cycle is undertaken according to company policies and procedures 2.2. The cleaning process is monitored to confirm cleaning meets company requirements 2.3. Cleaning data is recorded according to workplace reporting requirements 2.4. Out-of-specification process and equipment performance is identified, rectified and/or reported
3. Dispose of waste and return plant to operating condition	3.1. Cleaning chemicals are flushed from plant and disposed of according to company policies and procedures

ELEMENT	PERFORMANCE CRITERIA
	3.2. Work is conducted according to environmental requirements
	3.3. Plant is set up to meet operational requirements

## Required Skills and Knowledge

### REQUIRED SKILLS AND KNOWLEDGE

This section describes the skills and knowledge required for this unit.

#### Required skills

##### *Ability to:*

- access workplace information, such as the cleaning schedule to identify cleaning requirements
- select, fit and use personal protective clothing and/or equipment
- confirm supply of necessary materials and services
- handle and prepare cleaning and sanitation agents safely, including following correct handling and preparation procedures and use of appropriate protective clothing and equipment as required
- schedule cleaning and/or liaise with related work areas to take equipment and area off-line with minimal disruption to production
- prepare equipment and area for cleaning, such as rendering equipment safe to clean, removing obstacles and unnecessary equipment, correctly positioning equipment (e.g. valves, pipes, vents and taps), selecting appropriate cleaning cycle, removing waste and/or dismantling equipment
- clean equipment according to cleaning process cycle and procedures, such as starting up and operating the CIP process in both automatic and manual modes
- monitor the process and equipment operation to maintain the cleaning process within the required parameters
- locate emergency stop functions on equipment
- return plant to operating order
- return area to working order
- take corrective action in response to out-of-specification results
- advise affected work areas of cleaning schedule and progress
- maintain and store chemicals and related equipment as required
- carry out relevant checks and inspections to confirm effectiveness of cleaning
- sort, collect, treat, recycle or dispose of waste
- record cleaning information
- maintain work area to meet housekeeping standards



**REQUIRED SKILLS AND KNOWLEDGE**

- conduct routine maintenance according to enterprise procedures
- take samples and conduct tests according to enterprise procedures
- use oral communication skills/language competence to fulfil the job role as specified by the organisation, including questioning, active listening, asking for clarification and seeking advice from supervisor
- work cooperatively within a culturally diverse workforce

**Required knowledge*****Knowledge of:***

- purpose and basic principles of CIP, including the use and functions of caustic and acid solutions, and cleaning sequence and stages as required in the workplace
- purpose and use of cleaning equipment and chemicals used
- terminology relating to the chemical solutions used
- safe work procedures, including appropriate signage of cleaning activities and safe handling and storage of cleaners and sanitisers used
- purpose and limitations of protective clothing and equipment
- cleaning and sanitation requirements, including different levels of cleaning requirements depending on the reason for cleaning
- characteristics of cleaning and sanitising chemicals used, including basic composition as well as compatibility of chemicals with types of equipment
- methods used to render equipment safe to clean, including the status and purpose of equipment guards, relevant lock out/tagout and isolation procedures
- equipment settings required for cleaning and for operating respectively
- basic operating principles of process control where relevant, including the relationship between control panels and systems and the physical equipment
- inspection points for cleaning and sanitation
- consequences of contamination of process flows by cleaning solutions and related safeguards
- types of waste generated by both the production and the cleaning process and related collection, treatment and disposal requirements
- environmental consequences of incorrect cleaning waste disposal procedures
- requirements to liaise/advise related work areas
- reporting and recording systems
- routine maintenance procedures where relevant
- sampling methods and test procedures where relevant

**Evidence Guide****EVIDENCE GUIDE**

## EVIDENCE GUIDE

The Evidence Guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.

### Overview of assessment

Assessment must be carried out in a manner that recognises the cultural and literacy requirements of the assessee and is appropriate to the work performed. Competence in this unit must be achieved in accordance with food safety standards and regulations.

### Critical aspects for assessment and evidence required to demonstrate competency in this unit

Evidence of ability to:

- shut down equipment and prepare for cleaning
- prepare and use chemicals according to safe work requirements
- clean equipment to meet work standards
- monitor cleaning and report or address any non-compliances
- flush equipment and dispose of waste according to environmental guidelines
- complete required documentation
- apply safe work practices and identify OHS hazards and controls
- apply food safety procedures.

### Context of and specific resources for assessment

Assessment must occur in a real or simulated workplace where the assessee has access to:

- cleaning procedures and related advice on equipment operation, including advice on safe work practices and environmental requirements
- personal protective clothing and equipment
- equipment to be cleaned, and related CIP system
- chemicals and/or automated chemical addition system
- services as required
- MSDS where appropriate
- cleaning schedule or advice and related standard operating procedures
- housekeeping standards and procedures
- advice on environmental management issues relevant to work responsibilities
- workplace information recording systems, requirements and procedures
- sampling and testing schedules and procedures as

<b>EVIDENCE GUIDE</b>	
	relevant to cleaning requirements in the workplace.
<b>Method of assessment</b>	<p>This unit should be assessed together with core units and other units of competency relevant to the function or work role. Examples could be:</p> <ul style="list-style-type: none"> <li>• FDFOP2011A Conduct routine maintenance</li> <li>• FDFOP2013A Apply sampling procedures</li> <li>• MSL973001A Perform basic tests.</li> </ul>
<b>Guidance information for assessment</b>	<p>To ensure consistency in one's performance, competency should be demonstrated on more than one occasion over a period of time in order to cover a variety of circumstances, cases and responsibilities, and where possible, over a number of assessment activities.</p>

## Range Statement

<b>RANGE STATEMENT</b>	
<p>The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.</p>	
<b>Policies and procedures</b>	<p>Work is carried out in accordance with company policies and procedures, regulatory and licensing requirements, legislative requirements, and industrial awards and agreements. When applied to the pharmaceutical industry, relevant Good Manufacturing Practice (GMP) codes apply and reference to food safety is replaced by GMP</p>
<b>Workplace information</b>	<p>Workplace information may include:</p> <ul style="list-style-type: none"> <li>• standard operating procedures (SOPs)</li> <li>• specifications</li> <li>• production cleaning schedules and instructions</li> <li>• signs and symbols</li> <li>• materials safety data sheets (MSDS)</li> <li>• manufacturers' advice</li> <li>• standard forms and reports</li> </ul>

<b>RANGE STATEMENT</b>	
<b>Dosing of cleaning chemicals</b>	Dosing of cleaning chemicals may be: <ul style="list-style-type: none"> <li>• automatically controlled or manually dosed</li> </ul>
<b>Services</b>	Services may include: <ul style="list-style-type: none"> <li>• power</li> <li>• water</li> <li>• Steam</li> <li>• compressed and instrumentation air</li> </ul>
<b>Testing</b>	Where tests are conducted as part of operation, a typical requirement is measurement of pH
<b>Monitoring the process</b>	Monitoring the process is dependent on the nature of equipment. Examples of monitoring include: <ul style="list-style-type: none"> <li>• chemical strength</li> <li>• cycle time</li> <li>• temperatures</li> <li>• time</li> <li>• storage tank levels</li> <li>• condensate quality</li> </ul>
<b>Operation and monitoring of equipment and processes</b>	Operation and monitoring of equipment and processes typically requires the use of control panels and systems

## Unit Sector(s)

<b>Unit sector</b>	Operational
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## Competency field

<b>Competency field</b>	
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## Co-requisite units

Co-requisite units		

## FDFOP2004A Clean and sanitise equipment

### Modification History

Not applicable.

### Unit Descriptor

<b>Unit descriptor</b>	This unit of competency covers cleaning, sanitation and related procedures for food processing production equipment.
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### Application of the Unit

<b>Application of the unit</b>	<p>This unit does not cover cleaning in place (CIP) processes. Where this is a required competency, select <i>FDFOP2003A</i> Clean equipment in place.</p> <p>Basic cleaning and sanitation procedures are covered in operational units. This unit should be selected where the operator is primarily responsible for cleaning and/or where they require a more detailed knowledge of cleaning and sanitation processes to carry out cleaning responsibilities. This unit applies to both wet and dry cleaning methods.</p>
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### Licensing/Regulatory Information

Not applicable.

### Pre-Requisites

<b>Prerequisite units</b>		

## Employability Skills Information

<b>Employability skills</b>	This unit contains employability skills.
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## Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.	Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.
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## Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Prepare for cleaning	1.1.Cleaning/sanitising agents and services are available and ready for use 1.2.Equipment is cleared of product and/or packaging consumables in preparation for cleaning 1.3.Equipment is rendered safe to clean
2. Clean and sanitise equipment to meet workplace requirements	2.1.Equipment is cleaned and sanitised according to workplace procedure and requirements 2.2.Equipment is inspected to confirm operating condition and cleanliness 2.3.Unacceptable equipment condition is identified and reported according to workplace procedures 2.4.Cleaning equipment and chemicals are stored according to workplace procedure 2.5.Waste from cleaning process is disposed of according to workplace procedures 2.6.Work is conducted in accordance with workplace environmental guidelines 2.7.Equipment is restored to operating order

## Required Skills and Knowledge

### REQUIRED SKILLS AND KNOWLEDGE

This section describes the skills and knowledge required for this unit.

#### Required skills

##### *Ability to:*

- access workplace information, such as the cleaning schedule to identify cleaning requirements
- select, fit and use personal protective clothing and/or equipment
- confirm supply of necessary cleaning and sanitising equipment and services
- select and prepare cleaners and sanitisers as required according to workplace procedures
- prepare equipment for cleaning, such as rendering equipment safe to clean, clearing product and waste materials, covering motors and instrumentation where steam or water hoses are used, and simple dismantling of equipment parts
- advise any affected work areas/operators of cleaning progress to coordinate timely completion with minimal disruption to production
- clean and sanitise equipment as required according to workplace procedures and cleaning schedule
- return equipment to operating order (this may involve basic assembly of equipment parts)
- inspect equipment to identify equipment condition and cleanliness
- locate emergency stop functions on equipment
- report and/or correct unacceptable equipment condition
- maintain housekeeping standards
- prepare cleaners and sanitisers as required
- store cleaners, sanitisers and related equipment as required
- carry out relevant checks and inspections
- maintain work area to meet housekeeping standards
- conduct routine maintenance according to enterprise procedures
- take samples and conduct tests according to enterprise procedures
- record cleaning and sanitation information according to enterprise procedures
- use oral communication skills/language competence to fulfil the job role as specified by the organisation, including questioning, active listening, asking for clarification and seeking advice from supervisor
- work cooperatively within a culturally diverse workforce

#### Required knowledge

##### *Knowledge of:*

- the purpose of cleaning and sanitation and importance in maintaining food safety
- functions of cleaners, sanitisers and related equipment



## REQUIRED SKILLS AND KNOWLEDGE

- safe work procedures, including appropriate signage of cleaning activities, safe handling and storage of cleaners and sanitisers used, safety when using cleaning methods, such as hot water and steam hoses, and status and purpose of safety guards
- purpose and limitations of protective clothing and equipment
- cleaning and sanitation requirements relating to work responsibilities, including the need for different levels of cleaning where relevant
- procedures for preparing cleaners and sanitizers as required
- cleaning method/s to be followed relating to work responsibilities
- other work areas/operators who need to be consulted/advised on timing of cleaning
- methods used to render equipment safe to clean, including understanding the status and purpose of equipment guards, relevant lock out/tagout and isolation procedures and related equipment settings for both cleaning and operating as required
- procedures for conducting cleaning and sanitising
- types of waste generated by the cleaning process and related collection, treatment and disposal requirements
- potential environmental impact of incorrect waste handling
- inspection, cleaning and storage requirements of cleaning equipment used
- inspection points and methods for confirming the effectiveness of cleaning and sanitation, including visual inspection, and where required, recording of cleaning conducted
- inspection requirements to confirm equipment condition, including acceptable equipment condition, ability to identify faulty or unacceptable equipment and take required corrective action
- recording requirements and responsibilities
- routine maintenance procedures where relevant
- sampling methods and test procedures where relevant

## Evidence Guide

### EVIDENCE GUIDE

The Evidence Guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.

#### Overview of assessment

Assessment must be carried out in a manner that recognises the cultural and literacy requirements of the assessee and is appropriate to the work performed. Competence in this unit must be achieved in accordance with food safety standards and regulations.

<b>EVIDENCE GUIDE</b>	
<b>Critical aspects for assessment and evidence required to demonstrate competency in this unit</b>	<p>Evidence of ability to:</p> <ul style="list-style-type: none"> <li>• prepare equipment for cleaning</li> <li>• prepare and use chemicals according to safe work requirements</li> <li>• clean and sanitise equipment to meet work standards</li> <li>• monitor cleaning and report or address any non-compliances</li> <li>• dispose of waste according to environmental guidelines</li> <li>• complete required documentation</li> <li>• apply safe work practices and identify OHS hazards and controls</li> <li>• apply food safety procedures.</li> </ul>
<b>Context of and specific resources for assessment</b>	<p>Assessment must occur in a real or simulated workplace where the assessee has access to:</p> <ul style="list-style-type: none"> <li>• cleaning procedures and related advice on equipment operation, including advice on safe work practices and environmental requirements</li> <li>• personal protective clothing and equipment</li> <li>• cleaning schedule and related procedures, including OHS advice</li> <li>• equipment/items to be cleaned</li> <li>• chemicals, cleaning equipment and services as required</li> <li>• MSDS where appropriate</li> <li>• housekeeping standards and procedures</li> <li>• cleaning/sanitising information recording system and procedures</li> <li>• advice on environmental management issues relevant to work responsibilities.</li> </ul>
<b>Method of assessment</b>	<p>This unit should be assessed together with core units and other units of competency relevant to the function or work role. Examples could be:</p> <ul style="list-style-type: none"> <li>• FDFOP2011A Conduct routine maintenance</li> <li>• FDFOP2013A Apply sampling procedures</li> <li>• MSL973001A Perform basic tests.</li> </ul>
<b>Guidance information for assessment</b>	<p>To ensure consistency in one's performance, competency should be demonstrated on more than one occasion over a period of time in order to cover a variety of circumstances, cases and responsibilities, and where</p>

**EVIDENCE GUIDE**

possible, over a number of assessment activities.

**Range Statement****RANGE STATEMENT**

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.

**Policies and procedures**

Work is carried out in accordance with company procedures, licensing requirements, legislative requirements, and industrial awards and agreements. When applied to the pharmaceutical industry, relevant Good Manufacturing Practice (GMP) codes apply and reference to food safety is replaced by GMP

**Workplace information**

Workplace information may include:

- standard operating procedures (SOPs)
- specifications
- production and cleaning schedules
- labels and codes
- safety signs and symbols
- materials safety data sheets (MSDS)
- standard forms
- written or verbal instruction

**Cleaning and sanitising chemicals**

Cleaning and sanitising chemicals may be:

- pre-mixed or manually mixed

**Preparing/restoring equipment to operating order**

Preparing/restoring equipment to operating order may involve:

- simple dismantling and reassembling of equipment parts
- basic isolation
- covering of motors and instrumentation

**Services**

Services may include:

<b>RANGE STATEMENT</b>	
	<ul style="list-style-type: none"> <li>• power</li> <li>• water</li> <li>• steam</li> <li>• compressed and instrumentation air</li> </ul>
<b>Inspecting cleaning effectiveness</b>	Inspecting cleaning effectiveness typically involves: <ul style="list-style-type: none"> <li>• carrying out a visual inspection</li> </ul>

## Unit Sector(s)

<b>Unit sector</b>	Operational
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## Competency field

<b>Competency field</b>	
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## Co-requisite units

<b>Co-requisite units</b>		

## FDFOP2005A Work in a socially diverse environment

### Modification History

Not applicable.

### Unit Descriptor

<b>Unit descriptor</b>	This unit of competency covers the skills and knowledge required to work in a socially diverse environment, including the development and application of cultural awareness required to interact effectively with people from diverse backgrounds.
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### Application of the Unit

<b>Application of the unit</b>	<p>This unit is based on the tourism and hospitality unit THHCOR2A Work in a socially diverse environment and the transport and distribution unit TDTG701A Work in a socially diverse environment.</p> <p>This unit involves the application of communication principles and problem solving techniques to facilitate work in a socially diverse environment.</p>
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### Licensing/Regulatory Information

Not applicable.

### Pre-Requisites

<b>Prerequisite units</b>		

## Employability Skills Information

<b>Employability skills</b>	This unit contains employability skills.
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## Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.	Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.
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## Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Communicate with people from diverse backgrounds	1.1. People from all cultural groups are valued and treated with respect and sensitivity 1.2. Verbal and non-verbal communication takes account of cultural differences 1.3. Where language barriers exist, efforts are made to communicate through use of gestures or simple words in the other persons' language 1.4. Assistance from colleagues, specialist resources or outside organisations is obtained when required
2. Respond to cross-cultural misunderstandings	2.1. Issues which may cause conflict or misunderstanding in the workplace are identified 2.2. Difficulties are addressed with the appropriate people in the workplace 2.3. When difficulties or misunderstandings occur, possible cultural differences are considered 2.4. Efforts are made to resolve the misunderstanding, taking account of cultural considerations 2.5. Issues and problems that cannot be resolved are referred as required for follow up

## Required Skills and Knowledge

### REQUIRED SKILLS AND KNOWLEDGE

This section describes the skills and knowledge required for this unit.

#### Required skills

##### *Ability to:*

- identify and recognise cultural differences in the workplace
- apply understanding of cultural difference to communicate effectively to achieve work requirements, including selecting appropriate communication style to suit audience
- identify and respond to cross-cultural misunderstandings
- use oral communication skills/language competence to fulfil the job role as specified by the organisation, including questioning, active listening, asking for clarification and seeking advice from supervisor

#### Required knowledge

##### *Knowledge of:*

- principles of equal employment opportunity (EEO) and anti-discrimination legislation as they apply to company and employee rights and responsibilities in the workplace
- recognition of the different cultural groups in the workplace
- understanding of the basis of cultural difference, including behaviour or practices that can cause offence, and related strategies for interacting in ways that are culturally sensitive
- communication strategies and styles appropriate to diverse audiences related to the workplace

## Evidence Guide

### EVIDENCE GUIDE

The Evidence Guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.

#### Overview of assessment

Assessment must be carried out in a manner that recognises the cultural and literacy requirements of the assessee and is appropriate to the work performed. Competence in this unit must be achieved in accordance with food safety standards and regulations.

<b>EVIDENCE GUIDE</b>	
<b>Critical aspects for assessment and evidence required to demonstrate competency in this unit</b>	<p>Evidence of ability to:</p> <ul style="list-style-type: none"> <li>• identify responsibilities according to the principles of anti-discrimination legislation</li> <li>• treat people from other cultures with respect and sensitivity</li> <li>• make efforts to communicate and understand others using verbal and non-verbal techniques</li> <li>• seek assistance when required to facilitate understanding</li> <li>• treat cross-cultural misunderstandings with sensitivity and act to resolve the matter with respect.</li> </ul>
<b>Context of and specific resources for assessment</b>	<p>Assessment must occur in a real or simulated workplace where the assessee has access to:</p> <ul style="list-style-type: none"> <li>• advice on legal rights and responsibilities relating to anti-discrimination and EEO</li> <li>• related company policies and procedures</li> <li>• opportunities to interact with others using typical workplace communication processes.</li> </ul>
<b>Method of assessment</b>	<p>This unit should be assessed together with core units and other units of competency relevant to the function or work role.</p>
<b>Guidance information for assessment</b>	<p>To ensure consistency in one's performance, competency should be demonstrated on more than one occasion over a period of time in order to cover a variety of circumstances, cases and responsibilities, and where possible, over a number of assessment activities.</p>

## Range Statement

<b>RANGE STATEMENT</b>	
<p>The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.</p>	
<b>Policies and procedures</b>	Work is carried out according to company policies



<b>RANGE STATEMENT</b>	
	and procedures, regulatory and licensing requirements, legislative requirements and industrial awards and agreements
<b>Legislative requirements</b>	<p>Legislative requirements are typically reflected in procedures and specifications. Legislation includes:</p> <ul style="list-style-type: none"> <li>• anti-discrimination</li> <li>• EEO</li> </ul>
<b>People from diverse backgrounds</b>	<p>People from diverse backgrounds may include:</p> <ul style="list-style-type: none"> <li>• any person involved in or related to the work process, such as work colleagues, managers and external personnel</li> </ul>
<b>Cultural differences</b>	<p>Cultural difference may include but is not limited to:</p> <ul style="list-style-type: none"> <li>• race</li> <li>• special needs</li> <li>• disabilities</li> <li>• gender</li> <li>• marital status</li> <li>• sexual preference</li> <li>• age</li> </ul>
<b>Examples of cultural differences</b>	<p>Examples of cultural differences may include but are not limited to:</p> <ul style="list-style-type: none"> <li>• language spoken and related communication style</li> <li>• levels of formality/informality</li> <li>• personal grooming</li> <li>• family obligations</li> <li>• recognised holidays</li> <li>• customs</li> <li>• work ethic</li> <li>• product preferences</li> </ul>
<b>Outside organisations</b>	<p>Outside organisations may include but are not limited to:</p> <ul style="list-style-type: none"> <li>• interpretative services</li> <li>• diplomatic services</li> <li>• local cultural organisations</li> <li>• appropriate government agencies</li> </ul>

**RANGE STATEMENT**

- |  |  |
|--|--|
|  | <ul style="list-style-type: none"><li>• educational institutions</li></ul> |
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**Unit Sector(s)**

<b>Unit sector</b>	Operational
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**Competency field**

<b>Competency field</b>	
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**Co-requisite units**

Co-requisite units		

## FDFOP2011A Conduct routine maintenance

### Modification History

Not applicable.

### Unit Descriptor

<b>Unit descriptor</b>	This unit of competency covers the skills and knowledge required to inspect equipment and carry out routine maintenance and/or adjustment using a limited range of hand tools.
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### Application of the Unit

<b>Application of the unit</b>	<p>This unit has application in a food production environment. It typically targets the production worker responsible for conducting simple and routine maintenance tasks to support the operation of machines or equipment.</p> <p>When applied to the pharmaceutical industry, relevant Good Manufacturing Practice (GMP) codes apply in place of the Food Standards Code and reference to food safety is replaced by GMP.</p>
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### Licensing/Regulatory Information

Not applicable.

### Pre-Requisites

<b>Prerequisite units</b>		

## Employability Skills Information

<b>Employability skills</b>	This unit contains employability skills.
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## Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.	Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.
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## Elements and Performance Criteria

<b>ELEMENT</b>	<b>PERFORMANCE CRITERIA</b>
1. Conduct routine inspection of plant and equipment	1.1. Equipment is inspected to identify signs of wear 1.2. Nature of maintenance requirement is assessed
2. Prepare to conduct routine maintenance	2.1. Maintenance task is assessed to determine tools and services required 2.2. Equipment is prepared for maintenance 2.3. Hand tools are selected according to task requirements 2.4. Tools are checked before use and unsafe and/or faulty items are reported within standard procedures 2.5. Maintenance is planned and scheduled in consultation with affected work areas to minimise disruption to production
3. Carry out routine maintenance	3.1. Routine maintenance on equipment is carried out according to workplace procedures 3.2. Maintenance activities are reported according to workplace reporting requirements
4. Complete maintenance tasks	4.1. Equipment is returned to operating order 4.2. Tools and materials are stored according to workplace procedure

ELEMENT	PERFORMANCE CRITERIA
	<p>4.3. Relevant personnel are notified of maintenance completion</p> <p>4.4. Housekeeping standards are maintained</p> <p>4.5. Work is conducted in accordance with workplace environmental guidelines</p>

## Required Skills and Knowledge

### REQUIRED SKILLS AND KNOWLEDGE

This section describes the skills and knowledge required for this unit.

#### Required skills

##### *Ability to:*

- access workplace information such as the equipment history, faults or difficulties
- select, fit and use personal protective clothing and/or equipment
- inspect equipment for signs of wear, such as visual inspections to detect leaks, listening for unusual noises and/or vibrations
- identify and describe maintenance requirements, including the ability to assess the urgency of the maintenance issue, recognise common types of maintenance requirements and run basic checks according to workplace procedures to confirm the need for and type of maintenance support required
- take action to address maintenance requirements, such as carrying out routine maintenance within level of skill and responsibility and/or reporting outstanding maintenance to appropriate personnel using the required forms or request system
- plan and schedule maintenance within level of responsibility, such as consulting affected personnel and/or work areas on timing and notifying of maintenance progress
- prepare equipment and work area for routine maintenance, including cleaning equipment prior to carrying out maintenance and confirming that equipment is safe to work on, and simple isolation or tag out of equipment as required by workplace procedure
- select and use hand tools as required to carry out maintenance task
- select relevant parts and materials as required to carry out maintenance task
- carry out routine maintenance tasks according to workplace procedures
- on completion of maintenance tasks, return equipment to operational order, including confirming that all equipment parts, nuts and bolts are accounted for and correctly tightened, and where required, cleaning and sanitising equipment
- store tools in designated location, including basic tool maintenance, such as oiling
- complete records of maintenance as required

## REQUIRED SKILLS AND KNOWLEDGE

- maintain work area to meet housekeeping standards
- use oral communication skills/language competence to fulfil the job role as specified by the organisation, including questioning, active listening, asking for clarification and seeking advice from supervisor
- work cooperatively within a culturally diverse workforce

### Required knowledge

#### *Knowledge of:*

- system in place to manage maintenance of plant and equipment in the workplace, including programs, such as responsive, preventative and proactive maintenance as appropriate
- responsibilities for participating in the maintenance program, including scope of operator responsibilities, roles of others involved in plant and equipment maintenance and procedures for raising maintenance orders where requirements are outside operator role
- basic operating principles of equipment to be maintained
- signs and symptoms of faulty equipment and early warning signs of potential problems
- basic checks used to confirm the nature of maintenance requirements, including distinguishing between mechanical and electrical faults and identifying probable causes or conditions that may increase maintenance requirements of equipment used
- procedures for issuing, maintaining and storing tools used
- safe use of hand tools and measuring instrumentation relevant to maintenance responsibilities
- lubrication requirements, including requirements to use food grade lubricants as required and consequences of using incorrect type or amount of lubricants
- safe work procedures, including appropriate signage of maintenance activities as required, use of appropriate personal protective clothing and equipment, and awareness of safety hazards and controls relating to maintenance tasks
- methods used to render equipment safe to work on or clean including lock out/tag out and isolation procedures (in some cases this may involve liaising with other maintenance operators)
- procedures and inspections to be carried out to confirm that equipment is in operating order and all parts are accounted for
- food safety risks arising from poor personal hygiene, cleaning and housekeeping practices and procedures associated with routine maintenance
- maintenance planning, scheduling and recording procedures

## Evidence Guide

### EVIDENCE GUIDE

The Evidence Guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.

#### Overview of assessment

Assessment must be carried out in a manner that recognises the cultural and literacy requirements of the assessee and is appropriate to the work performed. Competence in this unit must be achieved in accordance with food safety standards and regulations.

#### Critical aspects for assessment and evidence required to demonstrate competency in this unit

Evidence of ability to:

- identify routine maintenance tasks for machine or equipment
- monitor operation and identify need for maintenance tasks
- schedule maintenance tasks and communicate requirements with affected personnel
- select and use appropriate hand tools to undertake routine maintenance
- assess readiness for returning machine or equipment to operation or referring for further attention
- complete maintenance documentation
- apply safe work practices and identify OHS hazards and controls.

#### Context of and specific resources for assessment

Assessment must occur in a real or simulated workplace where the assessee has access to:

- personal protective clothing and equipment
- tools, equipment and supplies used in minor routine preventative maintenance
- routine maintenance and lubrication schedules and procedures
- equipment to be maintained
- housekeeping standards and procedures
- maintenance information recording system and procedures.

#### Method of assessment

This unit should be assessed together with core units and other units of competency relevant to the function or work role.

#### Guidance information for

To ensure consistency in one's performance, competency should be demonstrated on more than one occasion over

**EVIDENCE GUIDE****assessment**

a period of time in order to cover a variety of circumstances, cases and responsibilities, and where possible, over a number of assessment activities.

**Range Statement****RANGE STATEMENT**

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.

**Routine maintenance**

Routine maintenance is carried out according to company policies and procedures, licensing requirements, legislative requirements and industrial awards and agreements

**Workplace information**

Workplace information may include:

- standard operating procedures (SOPs)
- specifications
- production log books
- routine maintenance schedules
- manufacturers' advice
- condition monitoring information

**Typical routine maintenance tasks**

Typical routine maintenance tasks will depend on the workplace and may include:

- replacement of consumable components, such as O-rings, hoses, filters and other 'bolt-on/bolt-off' equipment parts
- lubrication of equipment and maintenance of fluid levels
- simple adjustment, alignment or attachment of equipment components, parts, guides and sensors
- clearing blocked nozzles, such as glue nozzles
- positioning/attaching equipment components
- carrying out basic maintenance on video inkjet



<b>RANGE STATEMENT</b>	
	machines
<b>Tools and materials</b>	<p>Tools and materials depend on the maintenance function and may include:</p> <ul style="list-style-type: none"> <li>a limited range of hand tools, such as spanners and screwdrivers, grease guns, Allen keys and measuring and alignment equipment</li> </ul> <p>Materials may include:</p> <ul style="list-style-type: none"> <li>lubricants and consumables for video inkjet printers</li> </ul>
<b>Inspections of equipment</b>	<p>Inspections of equipment may be carried out:</p> <ul style="list-style-type: none"> <li>informally or as part of a structured program associated with proactive maintenance</li> </ul>

## Unit Sector(s)

<b>Unit sector</b>	Operational
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## Competency field

<b>Competency field</b>	
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## Co-requisite units

<b>Co-requisite units</b>		

## FDFOP2013A Apply sampling procedures

### Modification History

Not applicable.

### Unit Descriptor

<b>Unit descriptor</b>	This unit of competency covers the skills and knowledge required to understand the requirements of sampling plans, and to collect and transfer samples to retain sample integrity.
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### Application of the Unit

<b>Application of the unit</b>	<p>This unit has application in a food production environment. Operators requiring this competency would typically be required to follow specific sampling procedures, such as aseptic sampling.</p> <p>When applied to the pharmaceutical industry, relevant Good Manufacturing Practice (GMP) codes apply and reference to food safety is replaced by GMP.</p>
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### Licensing/Regulatory Information

Not applicable.

### Pre-Requisites

<b>Prerequisite units</b>		

## Employability Skills Information

<b>Employability skills</b>	This unit contains employability skills.
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## Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.	Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.
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## Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Prepare for sampling	1.1.Sampling requirements are identified in accordance with the sampling plan 1.2.Sampling equipment, containers and labels are prepared
2. Collect samples	2.1.Samples are collected according to sampling procedures and the requirements of the sampling plan 2.2.Samples are handled and prepared to preserve sample and source integrity 2.3.Defects or abnormalities in source material and/or sample are identified and reported 2.4.Sample information is recorded according to workplace sample recording requirements 2.5.The work area is maintained according to housekeeping standards 2.6.Work is conducted in accordance with workplace environmental guidelines

## Required Skills and Knowledge

### REQUIRED SKILLS AND KNOWLEDGE

## REQUIRED SKILLS AND KNOWLEDGE

This section describes the skills and knowledge required for this unit.

### Required skills

#### *Ability to:*

- access and interpret sampling plan to identify sampling requirements
- select, fit and use personal protective clothing and/or equipment
- prepare for sampling to ensure required tools, containers and labels are available
- follow sampling procedures and the sampling plan to collect samples from the points, in the quantities and at the times specified
- identify atypical source materials and/or samples and take corrective action, such as reporting abnormalities, repeating sample collection and/or following intensive sampling schedules as required
- complete sample records according to workplace requirements, such as labelling samples as required
- transfer samples for testing
- maintain work area to meet housekeeping standards
- prepare samples according to enterprise procedures
- use oral communication skills/language competence to fulfil the job role as specified by the organisation, including questioning, active listening, asking for clarification and seeking advice from supervisor
- work cooperatively within a culturally diverse workforce

### Required knowledge

#### *Knowledge of:*

- basic sampling principles, including the importance of following the sampling plan to obtain representative sampling reflecting characteristics of source material, the sample characteristics and related preservation, handling and storage requirements, and the labelling system purpose and requirements
- tests to be conducted on samples and related handling and preparation requirements and responsibilities
- characteristics of materials sampled and common contaminants and related conditions under which contamination is likely to occur
- sampling techniques relevant to samples collected, such as sterilisation methods and procedures
- the relationship between sampling, testing and production processes, including different sampling regimes that may apply in response to non-standard conditions or after corrective action is taken to adjust production outputs
- procedures and responsibility for reporting and recording sampling information, such as legislative requirements
- procedures for preparing samples where relevant

## Evidence Guide

### EVIDENCE GUIDE

The Evidence Guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.

#### Overview of assessment

Assessment must be carried out in a manner that recognises the cultural and literacy requirements of the assessee and is appropriate to the work performed. Competence in this unit must be achieved in accordance with food safety standards and regulations.

#### Critical aspects for assessment and evidence required to demonstrate competency in this unit

Evidence of ability to:

- conduct pre-start checks on equipment used for collecting and handling samples
- collect, handle and store samples according to sampling requirements and standards
- take corrective action in response to typical defects and inconsistencies
- complete workplace records as required
- apply safe work practices and identify OHS hazards and controls
- apply food safety procedures.

#### Context of and specific resources for assessment

Assessment must occur in a real or simulated workplace where the assessee has access to:

- sampling plan
- documentation, including specifications, work instruction and other advice on sampling requirements
- recording and reporting system
- sampling instrumentation and containers as required
- product/source material to be sampled.

#### Method of assessment

This unit should be assessed together with core units and other units of competency relevant to the function or work role. Example could be:

- MSL973001A Perform basic tests

#### Guidance information for assessment

To ensure consistency in one's performance, competency should be demonstrated on more than one occasion over a period of time in order to cover a variety of circumstances, cases and responsibilities, and where

**EVIDENCE GUIDE**

possible, over a number of assessment activities.

**Range Statement****RANGE STATEMENT**

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.

**Policies and procedures**

Work is carried out according to company policies and procedures, regulatory and licensing requirements, legislative requirements and industrial awards and agreements

**Workplace information**

Workplace information may include:

- standard operating procedures (SOPs)
- specifications
- production schedules and instructions
- manufacturers' advice
- sampling plans

**Sampling requirements**

Sampling requirements include:

- sampling under standard conditions
- sampling after processes are adjusted in response to variation or non-conformance

**Sampling**

Sampling typically occurs at a number of points and using a range of techniques

**Maintenance of sample integrity**

Maintenance of sample integrity may be achieved by:

- use of appropriate personal protective clothing
- use of clean sampling tools and containers (sterilised tools/containers for aseptic sampling)
- temperature control
- addition of preservatives as required

**RANGE STATEMENT**

<b>Sampling techniques</b>	Sampling techniques may include: <ul style="list-style-type: none"><li>• sub-sampling</li></ul>
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**Unit Sector(s)**

<b>Unit sector</b>	Operational
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**Competency field**

<b>Competency field</b>	
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**Co-requisite units**

<b>Co-requisite units</b>		

## FDFOP2015A Apply principles of statistical process control

### Modification History

Not applicable.

### Unit Descriptor

<b>Unit descriptor</b>	This unit of competency covers the skills and knowledge required to collect statistical information and analyse and interpret data in order to inform work processes.
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### Application of the Unit

<b>Application of the unit</b>	This unit has application where some data collection and interpretation is required to inform work practices. This typically includes plotting data on charts, such as run or control charts, and identifying variation according to given limits.
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### Licensing/Regulatory Information

Not applicable.

### Pre-Requisites

<b>Prerequisite units</b>		
	FDFOP2061A	Use numerical applications in the workplace



## Employability Skills Information

<b>Employability skills</b>	This unit contains employability skills.
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## Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.	Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.
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## Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Collect statistical information	1.1.Data requirements are identified 1.2.Data is collected to meet requirements
2. Analyse and interpret data	2.1.Data is analysed to identify variation 2.2.Trends in data are identified 2.3.Corrective action requirements are determined based on data

## Required Skills and Knowledge

<b>REQUIRED SKILLS AND KNOWLEDGE</b>
This section describes the skills and knowledge required for this unit.
<b>Required skills</b>
<p><i>Ability to:</i></p> <ul style="list-style-type: none"> <li>identify and collect required data</li> <li>retrieve/access data, which may require use of computer programs to access and analyse data, and the ability to locate the relevant information or screens to collect and analyse the data</li> <li>apply basic statistical analysis techniques to meet work requirements, such as plotting data on charts (e.g. run or control charts) and identify variation according</li> </ul>

**REQUIRED SKILLS AND KNOWLEDGE**

to given limits

- interpret data to identify trends (manually or using a computer program)
- determine when corrective action is required, such as identifying upper and lower control limits (and warning limits where relevant)

**Required knowledge*****Knowledge of:***

- data sampling method, including the nature of the sample on which data is based and the reasons for different sampling requirements that may apply in a given situation
- concept of variation, including the difference between common and special causes of variation and consequent options for reducing variation and remaining within a given range
- the purpose and process of establishing targets and limits
- concept of standard distribution/standard deviation
- methods used to analyse statistical data, including methods to determine the average, median and mean, and what these measures indicate

**Evidence Guide****EVIDENCE GUIDE**

The Evidence Guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.

**Overview of assessment**

Assessment must be carried out in a manner that recognises the cultural and literacy requirements of the assessee and is appropriate to the work performed. Competence in this unit must be achieved in accordance with food safety standards and regulations.

**Critical aspects for assessment and evidence required to demonstrate competency in this unit**

Evidence of ability to:

- identify data for collection and requirements for ensuring accuracy
- interpret data
- document data on charts, graphs or required workplace format
- identify need for corrective action.

**Context of and specific resources for**

Assessment must occur in a real or simulated workplace

<b>EVIDENCE GUIDE</b>	
<b>assessment</b>	<p>where the assessee has access to:</p> <ul style="list-style-type: none"> <li>• statistical process control data</li> <li>• related data collection and analysis systems</li> <li>• calculator.</li> </ul>
<b>Method of assessment</b>	This unit should be assessed together with core units and other units of competency relevant to the function or work role.
<b>Guidance information for assessment</b>	To ensure consistency in one's performance, competency should be demonstrated on more than one occasion over a period of time in order to cover a variety of circumstances, cases and responsibilities, and where possible, over a number of assessment activities.

## Range Statement

<b>RANGE STATEMENT</b>	
<p>The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.</p>	
<b>Data collection</b>	<p>Data collection may be based on a sampling regime followed by an operator or collected automatically. Data collection may include:</p> <ul style="list-style-type: none"> <li>• collecting samples and taking measurements</li> </ul>
<b>Data analysis</b>	<p>Data analysis typically involves:</p> <ul style="list-style-type: none"> <li>• use of computer programs but may also be carried out manually</li> </ul>

## Unit Sector(s)

<b>Unit sector</b>	Operational
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**Competency field**

<b>Competency field</b>	
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**Co-requisite units**

<b>Co-requisite units</b>		

## FDFOP2016A Work in a food handling area for non-food handlers

### Modification History

Not applicable.

### Unit Descriptor

<b>Unit descriptor</b>	This unit of competency covers the skills and knowledge required to conduct work in a food handling area where the work does not involve direct food contact.
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### Application of the Unit

<b>Application of the unit</b>	<p>Typical applications for this unit include stores/warehousing, cleaning and maintenance workers. This unit is not appropriate for a person who has direct contact with food and/or raw materials or ingredients. Where this is a requirement, refer to relevant core food safety units.</p> <p>This unit is based on and equivalent to the guideline food safety unit GFSWFHAA Carry out work in a food handling area.</p>
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### Licensing/Regulatory Information

Not applicable.

### Pre-Requisites

<b>Prerequisite units</b>		

## Employability Skills Information

<b>Employability skills</b>	This unit contains employability skills.
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## Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.	Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.
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## Elements and Performance Criteria

<b>ELEMENT</b>	<b>PERFORMANCE CRITERIA</b>
1. Maintain food safety while working in a food handling area	1.1. Food safety requirements related to work tasks are identified and followed 1.2. Work responsibilities are carried out so that the safety of food is maintained 1.3. Procedures or practices which are not consistent with workplace food safety program are identified and reported
2. Maintain food handling area in clean and orderly state	2.1. Equipment and the food handling area meet the cleaning and sanitation requirements of workplace food safety program 2.2. Work is conducted in accordance with workplace environmental guidelines 2.3. Waste is collected and disposed of according to workplace procedures

## Required Skills and Knowledge

### REQUIRED SKILLS AND KNOWLEDGE

## REQUIRED SKILLS AND KNOWLEDGE

This section describes the skills and knowledge required for this unit.

### Required skills

#### *Ability to:*

- access and apply workplace information on food safety policies and procedures relating to own work
- fit and use appropriate personal protective clothing and equipment as required by work tasks to meet food business requirements
- maintain personal conduct consistent with workplace requirements
- check own work area to identify food safety hazards
- carry out work responsibilities to ensure that food safety is not compromised
- take necessary precautions when moving between or around the workplace and/or from one task to another to minimise the risk of contamination
- recognise and report situations or procedures that could compromise food safety according to workplace procedure, including following procedures in own work and related work area to report to the appropriate personnel, in required detail and in a timely manner
- take corrective or preventative action within level of responsibility
- report health conditions and illness as required by workplace food safety procedures
- sort and dispose of waste as required by work responsibility according to workplace procedure
- maintain housekeeping standards in work area
- use oral communication skills/language competence to fulfil the job role as specified by the organisation, including questioning, active listening, asking for clarification and seeking advice from supervisor
- work cooperatively within a culturally diverse workforce

### Required knowledge

#### *Knowledge of:*

- food safety requirements related to own work as determined by the workplace
- sources of advice on food safety issues and responsibilities in the workplace
- personal hygiene practices and clothing and footwear requirements associated with working in and moving in and between food handling areas and moving between food handling and non food-handling areas
- suitable standard for materials and equipment used in the food handling area, including materials that are unsuitable for use, such as breakable or dirty equipment/materials
- methods and procedures to be followed when carrying out work responsibilities in a food handling area to ensure that food safety is not compromised (this will depend on the nature of work responsibilities and food safety requirements as

**REQUIRED SKILLS AND KNOWLEDGE**

- specified by the workplace)
- the types of contamination that can occur as a result of work activities, and procedures used to prevent these types of contamination from occurring
  - cleaning and sanitation requirements and responsibilities, including cleaning methods appropriate to a food handling environment and those used in the specific food handling area
  - waste collection, recycling and handling procedures
  - housekeeping standards to be maintained in the work area

**Evidence Guide****EVIDENCE GUIDE**

The Evidence Guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.

**Overview of assessment**

Assessment must be carried out in a manner that recognises the cultural and literacy requirements of the assessee and is appropriate to the work performed. Competence in this unit must be achieved in accordance with food safety standards and regulations.

**Critical aspects for assessment and evidence required to demonstrate competency in this unit**

Evidence of ability to:

- identify food handling procedures and food safety issues for work
- apply food safety procedures when handling food products
- identify and act on non-conformances
- ensure cleaning standards are met
- follow environmental and waste management procedures.

**Context of and specific resources for assessment**

Assessment must occur in a real or simulated workplace where the assessee has access to:

- food safety policies and procedures relevant to work function
- work procedures, including procedures for entering and exiting food handling areas
- work process and related services/resources
- work area and related equipment to undertake work function



<b>EVIDENCE GUIDE</b>	
	<ul style="list-style-type: none"> <li>waste collection, treatment, recycling and/or disposal methods</li> <li>monitoring and reporting system.</li> </ul>
<b>Method of assessment</b>	This unit should be assessed together with core units and other units of competency relevant to the function or work role.
<b>Guidance information for assessment</b>	To ensure consistency in one's performance, competency should be demonstrated on more than one occasion over a period of time in order to cover a variety of circumstances, cases and responsibilities, and where possible, over a number of assessment activities.

## Range Statement

<b>RANGE STATEMENT</b>	
<p>The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.</p>	
<b>Policies and procedures</b>	Work is carried out in accordance with company policies and procedures, regulatory and licensing requirements, legislative requirements, site licences and industrial awards and agreements
<b>Workplace information</b>	<p>Workplace information may include:</p> <ul style="list-style-type: none"> <li>standard operating procedures (SOPs)</li> <li>advice on food safety requirements related to work function</li> <li>standard forms</li> <li>written or verbal instructions</li> </ul>
<b>Food handling area</b>	Food handling area can refer to any work area where receiving, handling and inspecting, preparing, processing, packaging, storing and/or despatching occur
<b>Examples of contamination that</b>	Examples of contamination that can result from

<b>RANGE STATEMENT</b>	
<b>can result from work activities</b>	<p>work activities include:</p> <ul style="list-style-type: none"> <li>chemical contamination which could be caused by lubricants, resins and cleaning and sanitation chemicals</li> <li>physical contamination which could be caused by metal, glass, plastic and cloths</li> </ul>
<b>Personal hygiene, clothing and footwear and requirements</b>	<p>Personal hygiene, clothing and footwear and requirements to report health conditions or illness must meet workplace requirements and procedures. At a minimum such procedures must ensure that any person in a food premises does not contaminate food, does not have unnecessary contact with ready-to-eat food and does not spit, smoke or use tobacco or similar in a food handling area. Refer to Food Safety Standard 3.2.2, Clause 17:3 and relevant state and territory regulations/legislation</p>

### Unit Sector(s)

<b>Unit sector</b>	Operational
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### Competency field

<b>Competency field</b>	
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### Co-requisite units

<b>Co-requisite units</b>		

## FDFOP2030A Operate a process control interface

### Modification History

Not applicable.

### Unit Descriptor

<b>Unit descriptor</b>	This unit of competency covers the skills and knowledge required to operate a computer-based interface to modify and/or interrogate a control system.
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### Application of the Unit

<b>Application of the unit</b>	<p>This unit typically targets skills required by a production worker to operate equipment using process control interface.</p> <p>Work may require the ability to work within a team environment</p>
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### Licensing/Regulatory Information

Not applicable.

### Pre-Requisites

<b>Prerequisite units</b>		

## Employability Skills Information

<b>Employability skills</b>	This unit contains employability skills.
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## Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.	Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.
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## Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Navigate the process control interface	1.1. The readiness of the control interface and related components for operation are confirmed 1.2. Hardware provided is used to operate the interface 1.3. Page links are used to move between screens 1.4. Messages and alarms are acknowledged 1.5. Required information is accessed from screen displays 1.6. Interface system malfunctions are recorded and reported in accordance with workplace procedures
2. Use interface system to operate and maintain a process within required parameters	2.1. Individual items of equipment and/or processes are started, monitored and shutdown using the control interface 2.2. Equipment is selected, status altered and settings entered to meet operating requirements 2.3. Sequences are activated to initiate process operation 2.4. Equipment giving a bad signal or bad measurements is recognised and responsive action taken
3. Analyse data to predict and control performance	3.1. Trends are selected and analysed to identify performance patterns 3.2. Causes of abnormal or unacceptable performance are identified and corrective action taken 3.3. Information is recorded as required

## Required Skills and Knowledge

### REQUIRED SKILLS AND KNOWLEDGE

This section describes the skills and knowledge required for this unit.

#### Required skills

##### *Ability to:*

- use all hardware components to operate the control interface
- navigate the system to locate and use information required, including moving between screens and locating relevant performance data
- operate the control system using the interface, including start up and shut down equipment components and change set points as required
- locate sensors and instrumentation providing input signals to the control system and confirm operating order within level of responsibility
- recognise and respond to error messages and alarms as required
- access relevant performance data using the control system, including locating and interpreting performance trend information
- record log information using the interface system according to enterprise procedures
- use oral communication skills/language competence to fulfil the job role as specified by the organisation, including questioning, active listening, asking for clarification and seeking advice from supervisor
- work cooperatively within a culturally diverse workforce

#### Required knowledge

##### *Knowledge of:*

- processes and equipment being controlled, including required processing sequences
- operating principles of process control and interface system, including the relationship between control panels, systems and the physical equipment, and where relevant understanding of the operating conditions required for accurate information input from sensors and related instrumentation
- action required to respond to error messages and alarms
- typical faults that can occur when operating a process control interface and corrective action required
- performance data collected by the control interface system and its application to troubleshoot performance, including the ability to identify and investigate related trend data to track cause and effect
- recording requirements and responsibilities

## Evidence Guide

### EVIDENCE GUIDE

The Evidence Guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.

#### Overview of assessment

Assessment must be carried out in a manner that recognises the cultural and literacy requirements of the assessee and is appropriate to the work performed. Competence in this unit must be achieved in accordance with food safety standards and regulations.

#### Critical aspects for assessment and evidence required to demonstrate competency in this unit

Evidence of ability to:

- operate and navigate interface to access, retrieve, enter and store work data
- start, operate, monitor and shut down process equipment
- control and adjust equipment using control interface to achieve production requirements
- recognise faults and inconsistencies and take corrective action
- complete workplace records as required
- apply safe work practices and identify OHS hazards and controls.

#### Context of and specific resources for assessment

Assessment must occur in a real or simulated workplace where the assessee has access to:

- process control interface hardware and software
- work station or equipment to be controlled
- operating procedures and related advice on equipment operation
- process to be controlled
- communication systems and equipment
- workplace information recording systems, requirements and procedures.

#### Method of assessment

This unit should be assessed together with other core units or other units of competency relevant to the work role. This includes the relevant operational units for the process being controlled.

#### Guidance information for

To ensure consistency in one's performance, competency

**EVIDENCE GUIDE****assessment**

should be demonstrated on more than one occasion over a period of time in order to cover a variety of circumstances, cases and responsibilities, and where possible, over a number of assessment activities.

**Range Statement****RANGE STATEMENT**

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.

**Policies and procedures**

Work is carried out in accordance with company policies and procedures, manufacturers' recommendations, legislative requirements, codes of practice and industrial awards and agreements

**Workplace information**

Workplace information may include:

- standard operating procedures (SOPs)
- manufacturers' specifications

**Information accessed**

Information accessed may include:

- graphics, trends
- parameter settings
- alarms
- individual plant item status

**Computer-based interface**

A computer-based interface may consist of:

- computer processor
- monitor
- keyboards
- track ball
- mouse
- storage devices
- printers

(It is linked to the process control system)

**Unit Sector(s)**

<b>Unit sector</b>	Operational
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**Competency field**

<b>Competency field</b>	
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**Co-requisite units**

<b>Co-requisite units</b>		



## FDFOP2032A Work in a clean room environment

### Modification History

Not applicable.

### Unit Descriptor

<b>Unit descriptor</b>	This unit of competency covers the skills and knowledge required to gown-up, enter and work in a clean room environment and de-gown to minimise contamination risks.
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### Application of the Unit

<b>Application of the unit</b>	This unit has application in a food processing production environment. It typically targets the production worker responsible for conducting work according to clean room standards.
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### Licensing/Regulatory Information

Not applicable.

### Pre-Requisites

<b>Prerequisite units</b>		
	FDFFS2001A	Implement the food safety program and procedures OR
	FDFPH2001A	Apply Good Manufacturing Practice procedures

## Employability Skills Information

<b>Employability skills</b>	This unit contains employability skills.
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## Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.	Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.
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## Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Prepare to enter a clean room environment	1.1. Appropriate clothing and footwear are identified and available 1.2. Clothing and footwear are correctly fitted and inspected prior to entering a clean room 1.3. Hand washing and disinfecting procedures are followed according to workplace procedure
2. Work in a clean room environment	2.1. Workplace procedures are followed to enter a clean room environment 2.2. Work activities are conducted so as to minimise risk of contamination
3. Exit a clean room environment and de-gown	3.1. Workplace procedures are followed to exit a clean room environment 3.2. Protective clothing and footwear is removed according to workplace procedure 3.3. Work is conducted in accordance with workplace environmental guidelines

## Required Skills and Knowledge

### REQUIRED SKILLS AND KNOWLEDGE

## REQUIRED SKILLS AND KNOWLEDGE

This section describes the skills and knowledge required for this unit.

### Required skills

#### *Ability to:*

- access workplace information to determine clean room work requirements
- confirm that protective clothing and footwear are appropriate for use
- follow procedures to fit and inspect protective clothing and footwear
- follow procedures to enter a clean room environment, including following appropriate hand washing, disinfecting procedures and fitting gloves as required
- conduct work in a manner appropriate to minimising risk of contamination, including following procedures for sterilising and disinfecting equipment and surfaces as required
- exit the clean room environment according to workplace procedures
- remove protective clothing and footwear in correct sequence and deposit for laundering according to workplace procedures
- complete records as required
- maintain work area to meet housekeeping standards
- use oral communication skills/language competence to fulfil the job role as specified by the organisation, including questioning, active listening, asking for clarification and seeking advice from supervisor
- work cooperatively within a culturally diverse workforce

### Required knowledge

#### *Knowledge of:*

- purpose and conditions required in a clean room environment, including how the clean room maintains a clean environment and related airflow systems
- preparation and handling requirements for garments and footwear worn in a clean room environment, including garment features appropriate to a clean room environment and inspection procedure to confirm clothing and footwear are fit for use prior to fitting
- inspection points to confirm that clothing and footwear are correctly fitted according to workplace procedures
- procedures to follow if garments are not fit for use
- clean room control measures and related monitoring requirements, such as pressure differences between the clean room and change room and knowledge of location of pressure gauges, and checking operating conditions of ventilation systems where required
- entry procedures
- requirements for conducting work in a clean room and consequences of not complying with these requirements (typically work is conducted slowly to minimise disturbance of particulates)

**REQUIRED SKILLS AND KNOWLEDGE**

- procedures to follow to minimise risk of contamination including cleaning, sanitation, sterilisation and disinfecting of equipment and surfaces
- conditions which can cause contamination, and control measures to avoid this occurring
- occupational health and safety (OHS) hazards and controls, including the limitations of protective clothing and equipment relevant to the work process
- procedures for exiting and de-gowning
- laundering requirements and procedures
- housekeeping requirements for work area
- recording requirements and procedures

**Evidence Guide****EVIDENCE GUIDE**

The Evidence Guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.

**Overview of assessment**

Assessment must be carried out in a manner that recognises the cultural and literacy requirements of the assessee and is appropriate to the work performed. Competence in this unit must be achieved in accordance with food safety standards and regulations.

**Critical aspects for assessment and evidence required to demonstrate competency in this unit**

Evidence of ability to:

- prepare to work in a clean room environment through the correct application of required clothing and footwear
- conduct work according to clean room work standards
- follow hand washing procedures
- exit room according to clean room standards
- apply safe work practices and identify OHS hazards and controls.

**Context of and specific resources for assessment**

Assessment must occur in a real or simulated workplace where the assessee has access to:

- protective clothing, footwear and equipment appropriate to a clean room
- work procedures relevant to working in a clean room environment, including those specific to entering and

<b>EVIDENCE GUIDE</b>	
	<p>exiting the clean room and to carrying out the relevant work function</p> <ul style="list-style-type: none"> <li>• a clean room environment</li> <li>• documentation and recording requirements and procedures.</li> </ul>
<b>Method of assessment</b>	This unit should be assessed together with core units and other units of competency relevant to the function or work role.
<b>Guidance information for assessment</b>	To ensure consistency in one's performance, competency should be demonstrated on more than one occasion over a period of time in order to cover a variety of circumstances, cases and responsibilities, and where possible, over a number of assessment activities.

## Range Statement

<b>RANGE STATEMENT</b>	
<p>The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.</p>	
<b>Policies and procedures</b>	<p>Work is carried out according to company policies and procedures, licensing requirements, legislative requirements, and industrial awards and agreements. When applied to the pharmaceutical industry, relevant Good Manufacturing Practice (GMP) codes apply and reference to food safety is replaced by GMP</p>
<b>Workplace information</b>	<p>Workplace information may include:</p> <ul style="list-style-type: none"> <li>• standard operating procedures (SOPs)</li> <li>• specifications</li> <li>• production schedules and instructions</li> <li>• manufacturers' advice</li> <li>• standard forms and reports</li> </ul>
<b>Clean room</b>	A clean room refers to any environmentally graded

<b>RANGE STATEMENT</b>	
	work area
<b>Multiple gowning processes</b>	Multiple gowning processes may be required
<b>Protective clothing and footwear</b>	Protective clothing and footwear are fit for purpose and appropriate to a clean room environment

### Unit Sector(s)

<b>Unit sector</b>	Operational
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### Competency field

<b>Competency field</b>	
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### Co-requisite units

<b>Co-requisite units</b>		

## FDFOP2061A Use numerical applications in the workplace

### Modification History

Not applicable.

### Unit Descriptor

<b>Unit descriptor</b>	This is unit of competency covers the skills and knowledge required to apply basic mathematical functions of addition, subtraction, multiplication and division to undertake workplace calculations or to estimate approximate answers when exact calculations are not required.
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### Application of the Unit

<b>Application of the unit</b>	<p>This unit has application in a production environment where basic mathematics may be required to undertake or support work processes. Typical applications of mathematical concepts in the workplace include but are not limited to measuring or estimating product characteristics, such as weight, capacity, time and temperature; measuring and estimating material usage, quantities and ratios; measuring equipment and processing parameters, such as speed/throughput; and calculating entitlements, such as pay, leave entitlements, and shift allowances.</p> <p>The unit requires both calculation and estimation skills with the choice between calculation and estimation dependent on the particular process and sector.</p>
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### Licensing/Regulatory Information

Not applicable.

## Pre-Requisites

<b>Prerequisite units</b>		

## Employability Skills Information

<b>Employability skills</b>	This unit contains employability skills.
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## Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.	Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.
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## Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Apply basic mathematical concepts to calculate workplace information	1.1. Calculation requirements are identified and appropriate method is selected 1.2. Data is obtained from relevant sources and interpreted correctly. 1.3. Calculations are undertaken using addition, subtraction, multiplication and division to support work role
2. Apply basic mathematical concepts to estimate workplace information	2.1. Estimation requirements are identified and appropriate estimation method is selected 2.2. Data is obtained from relevant sources and interpreted correctly. 2.3. Estimations are made to meet work requirements



## Required Skills and Knowledge

### REQUIRED SKILLS AND KNOWLEDGE

This section describes the skills and knowledge required for this unit.

#### Required skills

##### *Ability to:*

- identify whether a calculation or estimation is required to meet workplace requirements
- carry out calculations involving basic addition, subtraction, division and multiplication to support work role (this may involve use of a calculator and conversion tables where required)
- use estimation techniques to check quantities, ratios, speed and other required data estimates
- use estimation techniques to check calculated results and workplace data
- record calculations and measurement information accurately according to enterprise procedures
- use oral communication skills/language competence to fulfil the job role as specified by the organisation, including questioning, active listening, asking for clarification and seeking advice from supervisor
- work cooperatively within a culturally diverse workforce

#### Required knowledge

##### *Knowledge of:*

- mathematical processes, including addition, subtraction, multiplication and division
- application of calculation and estimation techniques to meet work requirements
- units of measurement used in the workplace, including whole numbers, fractions and decimals (to one decimal point) (this may include use of conversion charts)
- representation of numerical information relevant to work requirements, such as charts, graphs and tables
- recording requirements and responsibilities where relevant

## Evidence Guide

### EVIDENCE GUIDE

The Evidence Guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.

<b>EVIDENCE GUIDE</b>	
<b>Overview of assessment</b>	Assessment must be carried out in a manner that recognises the cultural and literacy requirements of the assessee and is appropriate to the work performed. Competence in this unit must be achieved in accordance with food safety standards and regulations.
<b>Critical aspects for assessment and evidence required to demonstrate competency in this unit</b>	<p>Evidence of ability to:</p> <ul style="list-style-type: none"> <li>• identify calculation or estimation requirements</li> <li>• carry out calculations involving basic addition, subtraction, division and multiplication</li> <li>• where estimations are used, estimated amounts must be consistent with process or product specification and demonstrate knowledge of measurement units used in the workplace</li> <li>• use estimation techniques to check calculated results and workplace data.</li> </ul>
<b>Context of and specific resources for assessment</b>	<p>Assessment must occur in a real or simulated workplace where the assessee has access to:</p> <ul style="list-style-type: none"> <li>• work tasks requiring simple estimation and calculation</li> <li>• conversion tables, calculators and measuring instruments where required</li> <li>• workplace forms/documents used for recording data where required.</li> </ul>
<b>Method of assessment</b>	<p>This unit should be assessed together with other units of competency relevant to the function or work role. Example could be:</p> <ul style="list-style-type: none"> <li>• FDFOP2015A Apply principles of statistical process control.</li> </ul>
<b>Guidance information for assessment</b>	To ensure consistency in one's performance, competency should be demonstrated on more than one occasion over a period of time in order to cover a variety of circumstances, cases and responsibilities, and where possible, over a number of assessment activities.

## Range Statement

### RANGE STATEMENT

<b>RANGE STATEMENT</b>	
<p>The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.</p>	
<b>Calculations</b>	<p>Calculations may include:</p> <ul style="list-style-type: none"> <li>the use of whole numbers, decimals, fractions and percentages</li> </ul> <p>Calculations may be made:</p> <ul style="list-style-type: none"> <li>manually or using calculators and other measuring instruments as appropriate to the task</li> </ul>
<b>Estimations</b>	<p>Estimations can be used where the workplace tasks require only an approximate judgment of an amount, ratio, speed, and so on. Estimations can be made from:</p> <ul style="list-style-type: none"> <li>observations of other amounts or measurements</li> <li>supplied data, such as volume or weight information on packaging of raw materials</li> </ul>
<b>Conversion charts</b>	Conversion charts are those in common use in the workplace
<b>Results</b>	Results may or may not be recorded depending on workplace requirements
<b>Numerical information</b>	<p>Numerical information may be presented in forms, including:</p> <ul style="list-style-type: none"> <li>simple run charts</li> <li>graphs</li> </ul>

## Unit Sector(s)

<b>Unit sector</b>	Operational
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## Competency field

Competency field	
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## Co-requisite units

Co-requisite units		

## FDFOP2063A Apply quality systems and procedures

### Modification History

Not applicable.

### Unit Descriptor

<b>Unit descriptor</b>	This unit of competency covers the skills and knowledge required to apply quality principles and system requirements when carrying out work responsibilities where work involves the operation of packaging and/or processing equipment.
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### Application of the Unit

<b>Application of the unit</b>	<p>This unit has application in a food processing environment. It typically targets the production worker responsible for applying quality standards to work operations.</p> <p>Note that this unit does not apply to the pharmaceutical industry. Refer to FDFPH2001A Apply Good Manufacturing Practice procedures.</p>
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### Licensing/Regulatory Information

Not applicable.

### Pre-Requisites

<b>Prerequisite units</b>		

## Employability Skills Information

<b>Employability skills</b>	This unit contains employability skills.
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## Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.	Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.
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## Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Monitor quality of work outcome	1.1. Quality requirements are identified 1.2. Inputs are inspected to confirm capability to meet quality requirements 1.3. Work is conducted to produce required outcomes 1.4. Work processes are monitored to confirm quality of output and/or service 1.5. Processes are adjusted to maintain outputs within specification
2. Participate in maintaining and improving quality at work	2.1. Work area, materials, processes and product are routinely monitored to ensure compliance with quality requirements 2.2. Work is conducted in accordance with workplace environmental guidelines 2.3. Non-conformance in inputs, process, product and/or service is identified and reported according to workplace reporting requirements 2.4. Corrective action is taken within level of responsibility, to maintain quality standards 2.5. Quality issues are raised with designated personnel

## Required Skills and Knowledge

### REQUIRED SKILLS AND KNOWLEDGE

This section describes the skills and knowledge required for this unit.

#### Required skills

##### *Ability to:*

- access and apply workplace information on quality requirements for own work
- identify control points or inspection points for own work and related methods used to monitor quality
- maintain quality of own work, including relevant checks and inspections where required in order to monitor control points and check and inspect equipment, materials, product, packaging consumables, processing conditions and service standards relevant to own work
- identify and correct variation within boundaries of work role, and use quality data where required
- determine when and how to make adjustments to maintain output within specified parameters
- identify and respond to out-of-specification or unacceptable inputs and/or outputs
- record quality data in required format
- conduct tests related to work responsibilities according to enterprise procedures
- collect samples as required by sampling regime according to enterprise procedures
- use oral communication skills/language competence to fulfil the job role as specified by the organisation, including questioning, active listening, asking for clarification and seeking advice from supervisor
- work cooperatively within a culturally diverse workforce

#### Required knowledge

##### *Knowledge of:*

- quality policy, procedures and responsibilities
- quality system used in the workplace, including the relationship between the quality system and food safety program, sources of information on quality requirements, the role of internal and external auditors, as appropriate, and performance improvement processes
- basic concepts of quality assurance including hazards, risk assessment and control methods
- requirements of internal and external customers
- control points for own work, including the purpose of the control point, the risk if not controlled and the method of control used
- monitoring, testing and inspection procedures relating to process control requirements
- scope to correct/control variation within equipment and process capacity

**REQUIRED SKILLS AND KNOWLEDGE**

- parameters
- evidence of out-of-specification or unacceptable performance
- procedures for responding to out-of-specification or unacceptable performance/outcomes, including procedures for identifying or isolating materials or product of unacceptable quality
- systems used to trace product ingredients as relevant to own work
- requirements to report and record quality information
- sampling and test methods and procedures where relevant

**Evidence Guide****EVIDENCE GUIDE**

The Evidence Guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.

**Overview of assessment**

Assessment must be carried out in a manner that recognises the cultural and literacy requirements of the assessee and is appropriate to the work performed. Competence in this unit must be achieved in accordance with food safety standards and regulations.

**Critical aspects for assessment and evidence required to demonstrate competency in this unit**

Evidence of ability to:

- identify quality requirements and key elements of the quality system
- conduct work according to quality standards
- monitor quality and identify and act on non-compliances
- participate in identifying quality system improvements.

**Context of and specific resources for assessment**

Assessment must occur in a real or simulated workplace where the assessee has access to:

- quality policy, system and procedures, including company codes of practice/Good Manufacturing Practice (GMP)
- work tasks and responsibilities
- workplace information relating to work tasks, including specifications, work instruction and other advice on quality requirements and procedures
- sampling and test procedures and related equipment



<b>EVIDENCE GUIDE</b>	
	as required <ul style="list-style-type: none"> <li>• systems for recording quality information.</li> </ul>
<b>Method of assessment</b>	This unit should be assessed together with other units of competency relevant to the function or work role. Examples could be: <ul style="list-style-type: none"> <li>• FDFFS2001A Implement the food safety program and procedures</li> <li>• FDFOP2013A Apply sampling procedures</li> <li>• MSL973001A Perform basic tests.</li> </ul>
<b>Guidance information for assessment</b>	To ensure consistency in one's performance, competency should be demonstrated on more than one occasion over a period of time in order to cover a variety of circumstances, cases and responsibilities, and where possible, over a number of assessment activities.

## Range Statement

<b>RANGE STATEMENT</b>	
<p>The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.</p>	
<b>Policies and procedures</b>	Work is carried out in accordance with company policies and procedures, licensing and regulatory requirements, legislative requirements and industrial awards and agreements
<b>Workplace information</b>	Workplace information may include: <ul style="list-style-type: none"> <li>• standard operating procedures (SOPs)</li> <li>• quality specifications</li> <li>• food safety plans</li> <li>• log sheets</li> <li>• standard forms and reports</li> </ul>
<b>Control points</b>	Control points refer to those key points in a work process which must be monitored and controlled. This includes food safety (critical) as well as

<b>RANGE STATEMENT</b>	
	quality and regulatory control points
<b>Monitoring quality</b>	Monitoring quality includes observation and other checks, tests or inspections to confirm that the work output meets defined specifications or quality standards. This can include the use of data collection and analysis tools, such as control charts. Tests or inspections may be carried out by the operator, a third party or be automated
<b>Reporting and recording systems</b>	Reporting and recording systems may be: <ul style="list-style-type: none"> <li>• verbal</li> <li>• written</li> <li>• electronic</li> <li>• screen-based</li> </ul>
<b>Participating in improvement</b>	Participating in improvement may involve: <ul style="list-style-type: none"> <li>• participation in structured improvement programs</li> <li>• one-off projects</li> <li>• day-to-day problem solving</li> </ul>

## Unit Sector(s)

<b>Unit sector</b>	Operational
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## Competency field

<b>Competency field</b>	
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## Co-requisite units

<b>Co-requisite units</b>		



## FDFOP2064A Provide and apply workplace information

### Modification History

Not applicable.

### Unit Descriptor

<b>Unit descriptor</b>	This unit of competency covers the skills and knowledge required to identify, collect and provide information to convey meaning to others.
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### Application of the Unit

<b>Application of the unit</b>	This unit typically targets the worker responsible for applying basic communication skills and providing information to support work practices. Information is previously generated and may be in a written or verbal form. Information can include data, charts, instructions, operating procedures, codes, production information, and simple reports (e.g. a breakdown report). Information can be provided to other members of a team, a supervisor, or maintenance staff. Communication skills include verbal and non-verbal methods and basic literacy according to the level of work information needs.
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### Licensing/Regulatory Information

Not applicable.

### Pre-Requisites

<b>Prerequisite units</b>		

## Employability Skills Information

<b>Employability skills</b>	This unit contains employability skills.
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## Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.	Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.
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## Elements and Performance Criteria

<b>ELEMENT</b>	<b>PERFORMANCE CRITERIA</b>
1. Provide and apply information to suit workplace and audience requirements	1.1. Information requirements for work operations are identified 1.2. Information is collected and assessed 1.3. Information is selected and structured in a logical way to convey meaning to others 1.4. Appropriate methods are used to communicate effectively with others
2. Respond to information requests	2.1. Information requests are processed promptly and courteously 2.2. Effective listening and verbal communication skills are applied to obtain information 2.3. The nature of requests is clarified 2.4. Appropriate information is provided in response to requests 2.5. Information is provided in a form appropriate to the enquirer 2.6. Requests are referred to the appropriate personnel where they fall outside area of responsibility
3. Use and maintain workplace	3.1. A range of information sources is accessed to support work requirements

ELEMENT	PERFORMANCE CRITERIA
information	3.2. Information is recorded in appropriate formats according to workplace reporting requirements 3.3. Work is conducted in accordance with workplace environmental guidelines 3.4. Information is analysed to meet work requirements 3.5. Effective listening and verbal communication skills are applied to exchange information

## Required Skills and Knowledge

### REQUIRED SKILLS AND KNOWLEDGE

This section describes the skills and knowledge required for this unit.

#### Required skills

##### *Ability to:*

- identify and access information to undertake work responsibilities
- seek information from people in the workplace to support work roles and responsibilities
- ascertain or clarify information requirements by asking questions
- prepare simple written or verbal presentations that structure and present information in a logical sequence
- present information appropriate to audience and information purpose, such as use of graphs and/or diagrams as appropriate (the audience may include people from diverse cultural backgrounds and with people with limited ability to speak or understand English)
- participate with others to achieve work outcomes using interactive communication processes
- participate in group discussions and processes as required, including demonstrating active listening skills and participating constructively in discussions
- respect and, where appropriate, represent the views of others
- record information in required format/s
- apply effective listening, questioning and verbal skills
- apply reading and writing skills to the level required by work operations
- work cooperatively within a culturally diverse workforce

#### Required knowledge

##### *Knowledge of:*

- communication channels, including consultative arrangements established in the

**REQUIRED SKILLS AND KNOWLEDGE**

- workplace
- common colloquial and technical terms relating to work function
- sources of information and advice relating to work responsibilities
- methods and technologies used to access, record and store workplace information, including print, and screen-based systems as relevant to the workplace
- presentation techniques to convey information on a range of typical workplace subjects appropriate to the audience
- recognition of different personal communication styles and appropriate communication options
- recognition of cultural diversity as appropriate in the workplace
- reporting roles and responsibilities
- interpersonal skills including active listening, questioning, seeking and responding to feedback
- basic meeting procedures to identify and achieve meeting/discussion outcomes

**Evidence Guide****EVIDENCE GUIDE**

The Evidence Guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.

**Overview of assessment**

Assessment must be carried out in a manner that recognises the cultural and literacy requirements of the assessee and is appropriate to the work performed. Competence in this unit must be achieved in accordance with food safety standards and regulations.

**Critical aspects for assessment and evidence required to demonstrate competency in this unit**

Evidence of ability to:

- use, interpret and apply work-related information presented in a variety of forms
- select and apply communication methods to present information to others
- respond to information requests
- record and maintain information in required work formats.

**Context of and specific resources for assessment**

Assessment must occur in a real or simulated workplace where the assessee has access to:

- advice on work roles and responsibilities

<b>EVIDENCE GUIDE</b>	
	<ul style="list-style-type: none"> <li>opportunities to interact with others using typical workplace communication processes</li> <li>typical group forums, such as work groups and committees</li> <li>typical workplace information</li> <li>information systems and procedures</li> <li>standard forms and equipment (as required) for recording workplace information.</li> </ul>
<b>Method of assessment</b>	<p>This unit should be assessed together with other units of competency relevant to the function or work role. Examples could be:</p> <ul style="list-style-type: none"> <li>FDFOP1007A Participate effectively in a workplace environment</li> <li>FDFOP2005A Work in a socially diverse environment</li> <li>TLIK107C Use infotechnology devices and computer applications in the workplace.</li> </ul>
<b>Guidance information for assessment</b>	<p>To ensure consistency in one's performance, competency should be demonstrated on more than one occasion over a period of time in order to cover a variety of circumstances, cases and responsibilities, and where possible, over a number of assessment activities.</p>

## Range Statement

<b>RANGE STATEMENT</b>	
<p>The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.</p>	
<b>Workplace information</b>	<p>Workplace information may include:</p> <ul style="list-style-type: none"> <li>standard operating procedures (SOPs)</li> <li>specifications</li> <li>production schedules and instructions</li> <li>signs and symbols</li> <li>materials safety data sheets (MSDS)</li> </ul>



<b>RANGE STATEMENT</b>	
	<ul style="list-style-type: none"> <li>• manufacturers' advice</li> <li>• standard forms and reports</li> </ul>
<b>Information to be accessed/conveyed</b>	<p>Information to be accessed/conveyed may be verbal, written and/or screen based and may include:</p> <ul style="list-style-type: none"> <li>• symbols</li> <li>• charts</li> <li>• signs</li> <li>• data</li> <li>• instructions</li> <li>• pictures and diagrams as relevant to own work</li> </ul>
<b>Typical subjects for communication</b>	<p>Typical subjects for communication include:</p> <ul style="list-style-type: none"> <li>• work functions</li> <li>• shift handovers</li> <li>• company policies and codes of practice</li> <li>• rights and responsibilities</li> <li>• procedures</li> <li>• employment conditions and entitlements</li> </ul>
<b>Interactive communication processes</b>	<p>Interactive communication processes include:</p> <ul style="list-style-type: none"> <li>• active listening</li> <li>• turn taking</li> <li>• questioning and tolerating the views of others</li> <li>• seeking and providing constructive feedback</li> </ul>
<b>Recording and/or accessing information electronically</b>	<p>Recording and/or accessing information electronically does not require an understanding of the programs used and the function involves limited interaction, such as simple keyboard operations.</p>

## Unit Sector(s)

<b>Unit sector</b>	Operational
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## Competency field

Competency field	
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## Co-requisite units

Co-requisite units		

## FDFOP3002A Set up a production or packaging line for operation

### Modification History

Not applicable.

### Unit Descriptor

<b>Unit descriptor</b>	This unit of competency covers the skills and knowledge required to set up multiple production or packaging processes and/or conduct multiple process changeovers for operation by others.
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### Application of the Unit

<b>Application of the unit</b>	<p>This unit is appropriate where setup and/or changeovers are not carried out by the equipment or process operator.</p> <p>This unit has application in a food processing production environment. It typically targets the production worker responsible for machine setup.</p>
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### Licensing/Regulatory Information

Not applicable.

### Pre-Requisites

<b>Prerequisite units</b>		

## Employability Skills Information

<b>Employability skills</b>	This unit contains employability skills.
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## Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.	Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.
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## Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Prepare for line setup	<p>1.1. Materials are confirmed and available to meet production requirements</p> <p>1.2. Equipment and related accessories are confirmed, available and fit for use to meet production requirements</p> <p>1.3. Tools and equipment required for line setup are available, operational and fit for use</p> <p>1.4. Processing parameters and settings are identified to meet production or packaging requirements</p>
2. Set up the line for operation	<p>2.1. Cleaning and maintenance requirements and status are identified and confirmed</p> <p>2.2. Equipment is inspected to confirm condition</p> <p>2.3. Machine settings are selected or adjusted as required to meet safety and production requirements</p> <p>2.4. Processing or packaging parameters are entered as required to meet production requirements</p> <p>2.5. Equipment performance is checked and adjusted as required</p> <p>2.6. Pre-start checks are carried out as required by workplace requirements</p> <p>2.7. Line setup is completed to match production or packaging schedule and operating requirements</p> <p>2.8. The line is ready and safe to operate and any</p>

ELEMENT	PERFORMANCE CRITERIA
	<p>maintenance requirements are reported according to workplace reporting requirements</p> <p>2.9. Work is conducted in accordance with workplace environmental guidelines</p> <p>2.10. Relevant personnel are notified of setup completion</p>

## Required Skills and Knowledge

### REQUIRED SKILLS AND KNOWLEDGE

This section describes the skills and knowledge required for this unit.

#### Required skills

##### *Ability to:*

- access production/packing schedule and related information to identify line setup/changeover requirements, such as checking product sequencing and compatibility, confirming that the required cleaning and/or sanitation has occurred and required packaging components and consumables are available as appropriate
- select, fit and use personal protective clothing and/or equipment
- confirm supply of necessary equipment and related attachments, materials and services for production
- confirm supply of necessary equipment and services to carry out setup operations
- set and/or adjust equipment to meet production/packaging requirements, including selecting the required parameters or equipment settings, and changing processing set points as required
- position safety guards and cancel isolation/lockouts ready for operation
- confirm that sensors and related feedback instruments are correctly positioned and operational
- operate equipment to confirm equipment setup and make final adjustments as required
- time setup activities to meet production requirements
- advise affected work areas/personnel of completion of setup
- maintain work area to meet housekeeping standards
- load and/or position materials/ingredients/product and/or packaging consumables according to enterprise procedures
- use the control panel/system to set and adjust equipment components according to enterprise procedures
- conduct routine maintenance according to enterprise procedures
- use oral communication skills/language competence to fulfil the job role as

**REQUIRED SKILLS AND KNOWLEDGE**

specified by the organisation, including questioning, active listening, asking for clarification and seeking advice from supervisor

- work cooperatively within a culturally diverse workforce

**Required knowledge*****Knowledge of:***

- basic operating principles of equipment and related accessories, including equipment adjustment points, range and location/alignment requirements of sensors and related feedback instruments, and status and purpose of guards
- operating capacities of equipment used in the work area, such as different types of equipment and/or components as required by processing operations
- nature of setup/changeover requirements, such as product compatibility and related cleaning requirements, impact of variation in materials or product on setup requirements, equipment and/or attachment changeovers related to given products
- typical equipment faults and related causes, including signs and symptoms of faulty equipment and early warning signs of potential problems
- pre-start checks required by setup/changeover
- related processes and personnel dependent on line setup, and communication responsibilities
- isolation, lock out and tag out procedures and responsibilities
- occupational health and safety (OHS) hazards and controls
- procedures and responsibility for reporting equipment performance information
- basic operating principles of process control, where relevant, including the relationship between control panels and systems and the physical equipment
- routine maintenance requirements and procedures where relevant

**Evidence Guide****EVIDENCE GUIDE**

The Evidence Guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.

**Overview of assessment**

Assessment must be carried out in a manner that recognises the cultural and literacy requirements of the assessee and is appropriate to the work performed. Competence in this unit must be achieved in accordance with food safety standards and regulations.

**Critical aspects for assessment and**

Evidence of ability to:

<b>EVIDENCE GUIDE</b>	
<b>evidence required to demonstrate competency in this unit</b>	<ul style="list-style-type: none"> <li>• conduct pre-start checks on machinery used for production to determine cleaning, maintenance and operation readiness</li> <li>• determine production parameters and requirements</li> <li>• set up line according to production requirements</li> <li>• take corrective action in response to typical faults and inconsistencies</li> <li>• complete workplace records and communicate line status with other personnel as required</li> <li>• apply safe work practices and identify OHS hazards and controls</li> <li>• safely shut down equipment</li> <li>• apply food safety procedures.</li> </ul>
<b>Context of and specific resources for assessment</b>	<p>Assessment must occur in a real or simulated workplace where the assessee has access to:</p> <ul style="list-style-type: none"> <li>• personal protective clothing and equipment</li> <li>• production/packaging schedule and related advice on setup/changeover requirements</li> <li>• cleaning records/clearance as required</li> <li>• information on equipment capacity and operating parameters</li> <li>• process/packaging equipment and related accessories and services</li> <li>• materials/consumables required by the process</li> <li>• hand tools as required.</li> </ul>
<b>Method of assessment</b>	<p>This unit should be assessed together with core units and other units of competency relevant to the function or work role. Examples could be:</p> <ul style="list-style-type: none"> <li>• FDFOP2011A Conduct routine maintenance</li> <li>• FDFOP2030A Operate a process control interface.</li> </ul>
<b>Guidance information for assessment</b>	<p>To ensure consistency in one's performance, competency should be demonstrated on more than one occasion over a period of time in order to cover a variety of circumstances, cases and responsibilities, and where possible, over a number of assessment activities.</p>

## Range Statement

### RANGE STATEMENT

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.

<b>Policies and procedures</b>	Work is carried out according to company procedures, regulatory and licensing requirements, legislative requirements, and industrial awards and agreements
<b>Legislative requirements</b>	<p>Legislative requirements are typically reflected in procedures and specifications. Legislation relevant to this industry includes:</p> <ul style="list-style-type: none"> <li>the Food Standards Code, including labelling, weights and measures legislation</li> <li>legislation covering food safety, environmental management, OHS, anti-discrimination and equal opportunity</li> </ul> <p>When applied to the pharmaceutical industry, relevant Good Manufacturing Practice (GMP) codes apply in place of the Food Standards Code and reference to food safety is replaced by GMP</p>
<b>Workplace information</b>	<p>Workplace information may include:</p> <ul style="list-style-type: none"> <li>standard operating procedures (SOPs)</li> <li>specifications</li> <li>production schedules and instructions</li> <li>standard forms and reports</li> </ul>
<b>Equipment adjustment</b>	<p>Equipment adjustment may include:</p> <ul style="list-style-type: none"> <li>limited use of hand tools, such as Allen keys and screwdrivers, within level of responsibility</li> </ul>
<b>Confirming cleaning requirements and status</b>	<p>Confirming cleaning requirements and status may involve:</p> <ul style="list-style-type: none"> <li>accessing cleaning records</li> </ul>



**Unit Sector(s)**

<b>Unit sector</b>	Operational
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**Competency field**

<b>Competency field</b>	
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**Co-requisite units**

<b>Co-requisite units</b>		

## FDFOP3003A Operate interrelated processes in a production system

### Modification History

Not applicable.

### Unit Descriptor

<b>Unit descriptor</b>	This unit of competency covers the skills and knowledge required to set up, operate and adjust interrelated processes in a production system.
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### Application of the Unit

<b>Application of the unit</b>	<p>This unit applies to senior operators who are applying skills and knowledge of the operational requirements of the production system for the industry in which it is applied.</p> <p>While the unit does not have specific prerequisites, it is not an entry level unit covering skills and knowledge required for operation of individual items of equipment and individual processes. The unit instead provides the skills and knowledge required for the coordination of multiple processes in a production system at an operational level. Where sector-specific senior operator technical skills are required, a relevant sector specific specialist elective unit should be selected.</p> <p>A system typically involves a series of interrelated processes that must be coordinated and concurrently operated to produce the required outcome. Individual processes may be directly operated, automated and/or operated by others. System operation requires higher level planning and problem solving skills applied to the series of processes than is required when operating an individual unit of equipment or multiple pieces of the same equipment.</p> <p>This unit does not supply skills related to the implementation of lean and competitive manufacturing</p>
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	related skills to improve system performance. Where these skills are required the relevant Manufacturing Skills Australia (MSA) competitive manufacturing elective units should be selected.
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## Licensing/Regulatory Information

Not applicable.

## Pre-Requisites

Prerequisite units		

## Employability Skills Information

<b>Employability skills</b>	This unit contains employability skills.
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## Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.	Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.
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## Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Prepare the production system for operation	1.1. Equipment, materials and services are confirmed and available to meet production requirements 1.2. Cleaning requirements and equipment status are

ELEMENT	PERFORMANCE CRITERIA
	<p>identified and confirmed</p> <p>1.3. Machine settings are selected or adjusted as required to meet safety and production requirements</p> <p>1.4. Processing/operating parameters are entered as required to meet production requirements</p> <p>1.5. Materials, ingredients and/or product are loaded or positioned as required to meet production requirements</p> <p>1.6. Pre-start checks are carried out as required by workplace requirements</p> <p>1.7. Equipment performance is checked and adjusted as required</p> <p>1.8. Equipment is ready and safe to operate</p>
2. Operate and monitor the production system	<p>2.1. The system is started up and operated according to company procedures</p> <p>2.2. System equipment components are monitored to identify variation in operating conditions</p> <p>2.3. Variation in equipment operation is identified and maintenance requirements are reported according to workplace reporting requirements</p> <p>2.4. The production system is monitored to confirm that specifications are met</p> <p>2.5. Out-of-specification product/process outcomes are identified, rectified and/or reported to maintain the process within specification</p> <p>2.6. The work area is maintained according to housekeeping standards</p> <p>2.7. Work is conducted in accordance with workplace environmental guidelines</p>
3. Hand over production system operation	<p>3.1. Workplace records are maintained according to workplace recording requirements</p> <p>3.2. Handover is carried out according to workplace procedures</p> <p>3.3. Process operators are aware of system and related equipment status at completion of handover</p>
4. Shut down the production system	<p>4.1. The appropriate shutdown procedure is identified</p> <p>4.2. The system is shut down according to workplace procedures</p> <p>4.3. Maintenance requirements are identified and reported</p>
5. Contribute to continuous	<p>5.1. System performance is reviewed against output</p>

ELEMENT	PERFORMANCE CRITERIA
improvement of the production system	<p>plan/targets</p> <p>5.2.Opportunities for system improvement are identified and investigated</p> <p>5.3.Proposals for improvement are developed and implemented within company planning arrangements, authority levels and according to company procedures</p>

## Required Skills and Knowledge

### REQUIRED SKILLS AND KNOWLEDGE

This section describes the skills and knowledge required for this unit.

#### Required skills

##### *Ability to:*

- access production schedule and related information to identify system output and operating requirements, such as planning daily production schedules and/or modifying plans to respond to operating conditions and customer requirements
- liaise with relevant work areas to confirm and/or secure necessary materials, services, equipment and labour to meet production requirements
- confirm supply of necessary equipment and related attachments, materials and services
- select, fit and use personal protective clothing and/or equipment
- set and/or adjust equipment to meet process output requirements, including inspecting equipment condition to identify any signs of wear, confirming selection of appropriate settings and/or related parameters, ensuring that isolation or lock outs are cancelled as required, confirming that equipment is clean and correctly configured for processing requirements, positioning sensors and controls correctly, ensuring any scheduled maintenance has been carried out, and confirming that all safety guards are in place and operational (checks may be done by the system operator or involve observing/supporting others setting and adjusting equipment and conducting pre-start checks)
- load and/or position materials, ingredients and/or product as required
- operate and monitor the production system, such as use of a process control system and/or observing/supporting others to follow correct operating procedures
- monitor materials flow and work-in-progress through the system
- confirm that the system operates within specified parameters and inspection/control points are monitored
- determine responses to out-of-specification results or non-conformance within level of responsibility

## REQUIRED SKILLS AND KNOWLEDGE

- monitor operating efficiencies of the system, including recognition of signs and symptoms of faulty equipment and early warning signs of other potential problems
- investigate, resolve and/or report problems and faults
- plan scheduled events to minimise disruption to production
- conduct/coordinate product or batch changeovers
- conduct/coordinate shift handovers
- review and maintain procedures to support system improvements
- maintain work area to meet housekeeping standards
- use oral communication skills/language competence to fulfil the job role as specified by the organisation, including questioning, active listening, asking for clarification and seeking advice from supervisor
- work cooperatively within a culturally diverse workforce

## Required knowledge

### *Knowledge of:*

- purpose and basic principles of the production system, including the system process flow, the interrelationships of each process to identify the impact of variation on related processes, and optimisation options
- basic operating principles of equipment and related accessories used by the system, including equipment adjustment points, status and purpose of guards, and range and location/alignment requirements of sensors and related feedback instruments
- operating capacities of equipment used in the system, such as different types of equipment and/or components as required by processing/packaging operations
- related systems and responsibilities for interaction, such as related production systems, services supply, packaging/warehousing, maintenance, laboratory/quality assurance and planning and scheduling
- product characteristics and common types of variation in materials and/or ingredients used, including the effect of variation on each stage of the system and scope to adjust or correct
- typical production related problems, including equipment faults, common causes and warning signs, incorrect or poor supply of materials, incorrect settings and poor operator control
- relevant procedures, specifications and operating parameters for the system and the individual processes
- isolation, lock out and tag out procedures and responsibilities
- hazards, risks, controls and methods for monitoring processes within the system, including occupational health and safety (OHS), food safety, quality and environmental hazards and risks
- workplace system and approach to equipment maintenance
- process improvement procedures and related consultative arrangements
- troubleshooting procedures and problem solving techniques
- communication responsibilities to inform related work areas/support functions and

**REQUIRED SKILLS AND KNOWLEDGE**

- other shifts of operational status and production issues
- procedures and responsibility for reporting production and performance information

**Evidence Guide****EVIDENCE GUIDE**

The Evidence Guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.

**Overview of assessment**

Assessment must be carried out in a manner that recognises the cultural and literacy requirements of the assessee and is appropriate to the work performed. Competence in this unit must be achieved in accordance with food safety standards and regulations.

**Critical aspects for assessment and evidence required to demonstrate competency in this unit**

Evidence of ability to:

- conduct pre-start checks on production system components
- confirm machine setup is ready to achieve production requirements
- correctly use required personal protective equipment
- start, operate, monitor and adjust process equipment throughout the system to achieve required quality outcomes
- identify system problems and take corrective action
- conduct operational handovers
- shut down system
- identify and investigate opportunities for operational improvements within areas of responsibility
- complete workplace records as required
- apply safe work practices and identify OHS hazards and controls
- safely shut down equipment
- apply food safety procedures.

**Context of and specific resources for assessment**

Assessment must occur in a real or simulated workplace where the assessee has access to:

- personal protective clothing and equipment

<b>EVIDENCE GUIDE</b>	
	<ul style="list-style-type: none"> <li>• production schedule and related advice on system requirements</li> <li>• information on equipment capacity and operating parameters</li> <li>• production system equipment and related accessories and services</li> <li>• materials/consumables required by the process</li> <li>• communication and recording systems and procedures.</li> </ul>
<b>Method of assessment</b>	<p>This unit should be assessed together with core units and other units of competency relevant to the function or work role. Examples could be:</p> <ul style="list-style-type: none"> <li>• FDFOP2030A Operate a process control interface</li> <li>• FDFPPL3003A Support and mentor individuals and groups.</li> </ul>
<b>Guidance information for assessment</b>	<p>To ensure consistency in one's performance, competency should be demonstrated on more than one occasion over a period of time in order to cover a variety of circumstances, cases and responsibilities, and where possible, over a number of assessment activities.</p>

## Range Statement

<b>RANGE STATEMENT</b>	
<p>The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.</p>	
<b>Policies and procedures</b>	<p>Work is carried out according to company procedures, regulatory and licensing requirements, legislative requirements, and industrial awards and agreements</p>
<b>Legislative requirements</b>	<p>Legislative requirements are typically reflected in procedures and specifications. Legislation relevant to this industry includes:</p> <ul style="list-style-type: none"> <li>• the Food Standards Code, including labelling,</li> </ul>



<b>RANGE STATEMENT</b>	
	<p>weights and measures legislation</p> <ul style="list-style-type: none"> <li>• legislation covering food safety, environmental management, OHS, anti-discrimination and equal opportunity</li> </ul> <p>When applied to the pharmaceutical industry, relevant Good Manufacturing Practice (GMP) codes apply in place of the Food Standards Code and reference to food safety is replaced by GMP</p>
<b>Workplace information</b>	<p>Workplace information may include:</p> <ul style="list-style-type: none"> <li>• standard operating procedures (SOPs)</li> <li>• specifications</li> <li>• production schedules and instructions</li> <li>• performance records and reports</li> </ul>
<b>Systems</b>	<p>A system typically involves:</p> <ul style="list-style-type: none"> <li>• a series of interrelated processes that must be coordinated and concurrently operated to produce the required outcome</li> </ul>
<b>System operation</b>	<p>System operation may involve:</p> <ul style="list-style-type: none"> <li>• coordination of operators of system components</li> </ul>
<b>Handovers</b>	<p>Handovers may be done:</p> <ul style="list-style-type: none"> <li>• in person or via recording/communication systems according to workplace arrangements</li> </ul>
<b>Operation and monitoring of equipment and system processes</b>	<p>Operation and monitoring of equipment and system processes typically requires:</p> <ul style="list-style-type: none"> <li>• the use of control panels and systems</li> </ul>
<b>Shutdown procedures</b>	<p>Shutdown procedures may include:</p> <ul style="list-style-type: none"> <li>• cleaning (in some cases cleaning may be carried out by a dedicated cleaning crew)</li> </ul>
<b>Confirming cleaning requirements and status</b>	<p>Confirming cleaning requirements and status may involve:</p> <ul style="list-style-type: none"> <li>• accessing cleaning records</li> </ul>

**Unit Sector(s)**

<b>Unit sector</b>	Operational
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**Competency field**

<b>Competency field</b>	
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**Co-requisite units**

<b>Co-requisite units</b>		

## FDFOP3004A Operate interrelated processes in a packaging system

### Modification History

Not applicable.

### Unit Descriptor

<b>Unit descriptor</b>	This unit of competency covers the skills and knowledge required to set up, operate and adjust interrelated processes in a packaging system.
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### Application of the Unit

<b>Application of the unit</b>	<p>This unit applies to senior operators who are applying skills and knowledge of the operational requirements of the packaging system for the industry in which it is applied.</p> <p>While the unit does not have specific prerequisites, it is not an entry level unit covering skills and knowledge required for operation of individual items of equipment and individual processes. The unit instead provides the skill and knowledge required for the coordination of multiple processes in a packaging system at an operational level. Where sector-specific senior operator technical skills are required, a relevant sector specific specialist elective unit should be selected.</p> <p>The system will typically involve a series of interrelated processes that must be coordinated and concurrently operated to produce the required outcome. Individual processes may be directly operated, automated and/or operated by others. System operation requires higher level planning and problem solving skills applied to the series of processes than is required when operating an individual unit of equipment or multiple pieces of the same equipment.</p> <p>This unit does not supply skills related to the implementation of lean and competitive manufacturing</p>
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	related skills to improve system performance. Where these skills are required the relevant Manufacturing Skills Australia (MSA) competitive manufacturing elective units should be selected.
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## Licensing/Regulatory Information

Not applicable.

## Pre-Requisites

Prerequisite units		

## Employability Skills Information

<b>Employability skills</b>	This unit contains employability skills.
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## Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.	Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.
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## Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Prepare the packaging system for operation	1.1. Equipment, materials and services are confirmed and available to meet packaging requirements 1.2. Cleaning requirements and equipment status is

ELEMENT	PERFORMANCE CRITERIA
	<p>identified and confirmed</p> <p>1.3. Machine settings are selected or adjusted as required to meet safety and production requirements</p> <p>1.4. Operating parameters are entered as required to meet production requirements</p> <p>1.5. Product and/or packaging components and consumables are loaded or positioned as required to meet packaging requirements</p> <p>1.6. Pre-start checks are carried out as required by workplace requirements</p> <p>1.7. Equipment performance is checked and adjusted as required</p> <p>1.8. Equipment is ready and safe to operate</p>
2. Operate and monitor the packaging system	<p>2.1. The system is started up and operated according to company procedures</p> <p>2.2. System equipment components are monitored to identify variation in operating conditions</p> <p>2.3. Variation in equipment operation is identified and maintenance requirements are reported according to workplace reporting requirements</p> <p>2.4. The system is monitored to confirm that packaging specifications are met</p> <p>2.5. Out-of-specification product/packaging outcomes are identified, rectified and/or reported to maintain the process within specification</p> <p>2.6. The work area is maintained according to housekeeping standards</p> <p>2.7. Work is conducted in accordance with workplace environmental guidelines</p>
3. Hand over packaging system operation	<p>3.1. Workplace records are maintained according to workplace recording requirements</p> <p>3.2. Handover is carried out according to workplace procedures</p> <p>3.3. Process operators are aware of system and related equipment status at completion of handover</p>
4. Shut down the packaging system	<p>4.1. The appropriate shutdown procedure is identified</p> <p>4.2. The system is shut down according to workplace procedures</p> <p>4.3. Maintenance requirements are identified and reported</p>
5. Contribute to	5.1. System performance is reviewed against output

ELEMENT	PERFORMANCE CRITERIA
continuous improvement of the system	<p>plan/targets</p> <p>5.2. Opportunities for system improvement are identified and investigated</p> <p>5.3. Proposals for improvement are developed and implemented within company planning arrangements, authority levels and according to company procedures</p>

## Required Skills and Knowledge

### REQUIRED SKILLS AND KNOWLEDGE

This section describes the skills and knowledge required for this unit.

#### Required skills

##### *Ability to:*

- access production/packaging schedule and related information to identify packaging output and operating requirements, such as establishing daily packaging priorities and/or modifying plans to respond to customer requirements
- liaise with relevant work areas to confirm and/or secure necessary materials, services, equipment and labour to meet production requirements
- confirm supply of necessary equipment and related attachments, materials and services
- select, fit and use personal protective clothing and/or equipment
- set and/or adjust equipment to meet packaging requirements, such as inspecting equipment condition to identify any signs of wear, confirming selection of appropriate settings and/or related parameters, ensuring that isolation or lock outs are cancelled as required, confirming that equipment is clean and correctly configured for packaging requirements, positioning sensors and controls correctly, ensuring any scheduled maintenance has been carried out, and confirming that all safety guards are in place and operational (checks may be done by the system operator or involve observing/supporting others setting and adjusting equipment and conducting pre-start checks)
- load and/or position product, packaging components and consumables as required
- operate and monitor the packaging system, such as use of a process control system and/or observing/supporting others to follow correct operating procedures
- monitor materials flow and work-in-progress to and from the packaging system
- confirm that the packaging system operates within specified parameters and inspection/control points are monitored
- determine responses to out-of-specification packaging or non-conformance within level of responsibility

## REQUIRED SKILLS AND KNOWLEDGE

- monitor operating efficiencies of the system, including recognition of signs and symptoms of faulty equipment and early warning signs of other potential problems
- investigate, resolve and/or report problems and faults
- plan scheduled events to minimise disruption to production
- conduct/coordinate product/packaging changeovers
- conduct/coordinate shift handovers
- review and maintain procedures to support system improvements
- maintain work area to meet housekeeping standards
- use oral communication skills/language competence to fulfil the job role as specified by the organisation, including questioning, active listening, asking for clarification and seeking advice from supervisor
- work cooperatively within a culturally diverse workforce

## Required knowledge

### *Knowledge of:*

- purpose and basic principles of the packaging system, including the process flow and the interrelationships of each previous processes that can affect packaging outcomes, packaging technology, and packaging equipment components
- basic operating principles of equipment and related accessories used by the system, including equipment adjustment points, status and purpose of guards, and range and location/alignment requirements of sensors and related feedback instruments
- operating capacities of equipment used in the system, such as different types of equipment and/or components as required by processing/packaging operations
- related systems and responsibilities for interaction, such as related production and further packaging/storage stages, services supply, maintenance, laboratory/quality assurance and planning and scheduling
- technical knowledge of product/packaging characteristics and the main factors that impact on shelf-life
- typical packaging related problems, including equipment faults, common causes and warning signs, incorrect or poor supply of materials and finished product, incorrect settings and poor operator control
- relevant procedures, specifications and operating parameters for the system and the individual processes
- isolation, lock out and tag out procedures and responsibilities
- hazards, risks, controls and methods for monitoring processes within the system, including occupational health and safety (OHS), food safety, quality and environmental hazards and risks
- workplace system and approach to equipment maintenance
- process improvement procedures and related consultative arrangements
- troubleshooting procedures and problem solving techniques
- communication responsibilities to inform related work areas/support functions and other shifts of operational status and production issues

**REQUIRED SKILLS AND KNOWLEDGE**

- procedures and responsibility for reporting production and performance information

**Evidence Guide****EVIDENCE GUIDE**

The Evidence Guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.

**Overview of assessment**

Assessment must be carried out in a manner that recognises the cultural and literacy requirements of the assessee and is appropriate to the work performed. Competence in this unit must be achieved in accordance with food safety standards and regulations.

**Critical aspects for assessment and evidence required to demonstrate competency in this unit**

Evidence of ability to:

- conduct pre-start checks on packaging system components
- confirm machine set up is ready to achieve packing requirements
- correctly use required personal protective equipment
- start, operate, monitor and adjust process equipment throughout the system to achieve required quality outcomes
- identify system problems and take corrective action
- conduct operational handovers
- shut down system
- identify and investigate opportunities for operational improvements within areas of responsibility
- complete workplace records as required
- apply safe work practices and identify OHS hazards and controls
- safely shut down equipment
- apply food safety procedures.

**Context of and specific resources for assessment**

Assessment must occur in a real or simulated workplace where the assessee has access to:

- personal protective clothing and equipment
- production schedule and related advice on system



<b>EVIDENCE GUIDE</b>	
	<p>requirements</p> <ul style="list-style-type: none"> <li>• information on equipment capacity and operating parameters</li> <li>• packaging system equipment and related accessories and services</li> <li>• product, packaging components and consumables as required by the process</li> <li>• communication and recording systems and procedures.</li> </ul>
<b>Method of assessment</b>	<p>This unit should be assessed together with core units and other units of competency relevant to the function or work role. Examples could be:</p> <ul style="list-style-type: none"> <li>• FDFOP2030A Operate a process control interface</li> <li>• FDFPPL3003A Support and mentor individuals and groups.</li> </ul>
<b>Guidance information for assessment</b>	<p>To ensure consistency in one's performance, competency should be demonstrated on more than one occasion over a period of time in order to cover a variety of circumstances, cases and responsibilities, and where possible, over a number of assessment activities.</p>

## Range Statement

<b>RANGE STATEMENT</b>	
<p>The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.</p>	
<b>Policies and procedures</b>	<p>Work is carried out according to company procedures, regulatory and licensing requirements, legislative requirements, and industrial awards and agreements</p>
<b>Legislative requirements</b>	<p>Legislative requirements are typically reflected in procedures and specifications. Legislation relevant to this industry includes:</p> <ul style="list-style-type: none"> <li>• the Food Standards Code, including labelling,</li> </ul>

<b>RANGE STATEMENT</b>	
	<p>weights and measures legislation</p> <ul style="list-style-type: none"> <li>• legislation covering food safety, environmental management, OHS, anti-discrimination and equal opportunity</li> </ul> <p>When applied to the pharmaceutical industry, relevant Good Manufacturing Practice (GMP) codes apply in place of the Food Standards Code and reference to food safety is replaced by GMP</p>
<b>Workplace information</b>	<p>Workplace information may include:</p> <ul style="list-style-type: none"> <li>• standard operating procedures (SOPs)</li> <li>• specifications</li> <li>• production schedules and instructions</li> <li>• performance records and reports</li> </ul>
<b>System operation</b>	<p>A system typically involves a series of interrelated processes that must be coordinated and concurrently operated to produce the required outcome. System operation may involve:</p> <ul style="list-style-type: none"> <li>• coordination of operators of system components</li> </ul>
<b>Handovers</b>	<p>Handovers may be done:</p> <ul style="list-style-type: none"> <li>• in person or via recording/communication systems according to workplace arrangements</li> </ul>
<b>Operation and monitoring of equipment and system processes</b>	<p>Operation and monitoring of equipment and system processes typically requires:</p> <ul style="list-style-type: none"> <li>• the use of control panels and systems</li> </ul>
<b>Shutdown procedures</b>	<p>Shutdown procedures may include:</p> <ul style="list-style-type: none"> <li>• cleaning (in some cases cleaning may be carried out by a dedicated cleaning crew)</li> </ul>

## Unit Sector(s)

<b>Unit sector</b>	Operational
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## Competency field

Competency field	
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## Co-requisite units

Co-requisite units		

## FDFPPL2001A Participate in work teams and groups

### Modification History

Not applicable.

### Unit Descriptor

<b>Unit descriptor</b>	This unit of competency covers the skills and knowledge required to work effectively with others to complete work activities.
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### Application of the Unit

<b>Application of the unit</b>	This unit can apply to participation in structured teams and informal work groups.
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### Licensing/Regulatory Information

Not applicable.

### Pre-Requisites

<b>Prerequisite units</b>		

### Employability Skills Information

<b>Employability skills</b>	This unit contains employability skills.
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## Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.	Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.
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## Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Identify team objectives	1.1. Team tasks, responsibilities and performance measures are identified and agreed 1.2. Tasks required to achieve goals and performance standards are discussed and agreed
2. Participate in planning work activity	2.1. Personal work tasks and roles are negotiated to ensure team goals and performance standards are met 2.2. Information is provided to contribute to planning work group activities 2.3. Personal skills are assessed to identify match with team skill needs 2.4. Personal workload is planned to meet team goals and performance standards
3. Complete work tasks and roles to meet team requirements	3.1. Work is undertaken to achieve team goals and performance standards 3.2. Communication between team members and with other work areas is appropriate and timely 3.3. Timely requests are made for assistance as required to meet team goals and performance standards 3.4. Assistance is provided to other team members to achieve team goals and performance standards 3.5. Work is conducted in accordance with workplace environmental guidelines

## Required Skills and Knowledge

### REQUIRED SKILLS AND KNOWLEDGE

## REQUIRED SKILLS AND KNOWLEDGE

This section describes the skills and knowledge required for this unit.

### Required skills

#### *Ability to:*

- identify team objectives, responsibilities and performance standards
- confirm and agree on work roles and responsibilities within the team
- complete work responsibilities within agreed timelines
- assess time and other resource requirements related to achieving own work responsibilities
- identify problems and request assistance in a timely manner to achieve personal and team goals
- use communication techniques appropriate to the audience
- exchange constructive feedback with team members
- participate effectively in team processes, including working with own team members and with other teams and work areas
- support other team members to achieve team goals
- use oral communication skills/language competence to fulfil the job role as specified by the organisation, including questioning, active listening, asking for clarification and seeking advice from supervisor
- work cooperatively within a culturally diverse workforce

### Required knowledge

#### *Knowledge of:*

- procedures for establishing team goals and performance standards
- methods used to measure achievement of personal and team goals
- team goals and personal role in achieving work outcomes
- group processes, including basic facilitation, negotiation and conflict resolution

## Evidence Guide

### EVIDENCE GUIDE

The Evidence Guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.

#### Overview of assessment

Assessment must be carried out in a manner that recognises the cultural and literacy requirements of the assessee and is appropriate to the work performed.

<b>EVIDENCE GUIDE</b>	
	Competence in this unit must be achieved in accordance with food safety standards and regulations.
<b>Critical aspects for assessment and evidence required to demonstrate competency in this unit</b>	<p>Evidence of ability to:</p> <ul style="list-style-type: none"> <li>• identify team goals and expectations and personal role within the team</li> <li>• plan work to maximise outcomes for team</li> <li>• apply communication skills to engage with other participants</li> <li>• participate in and support the achievement of team goals.</li> </ul>
<b>Context of and specific resources for assessment</b>	<p>Assessment must occur in a real or simulated workplace where the assessee has access to:</p> <ul style="list-style-type: none"> <li>• opportunities to participate in team processes</li> <li>• workplace arrangements for establishing company, workplace and team goals</li> <li>• methods used to measures and report on performance against targets or standards</li> <li>• resources required to achieve personal work requirements.</li> </ul>
<b>Method of assessment</b>	This unit should be assessed together with core units and other units of competency relevant to the function or work role.
<b>Guidance information for assessment</b>	To ensure consistency in one's performance, competency should be demonstrated on more than one occasion over a period of time in order to cover a variety of circumstances, cases and responsibilities, and where possible, over a number of assessment activities.

## Range Statement

<b>RANGE STATEMENT</b>
<p>The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.</p>

<b>RANGE STATEMENT</b>	
<b>Policies and procedures</b>	Work is carried out in accordance with company policies and procedures, regulatory and licensing requirements, legislative requirements and industrial awards and agreements
<b>Personal and team measures</b>	Personal measures may include: <ul style="list-style-type: none"> <li>• achievement of work outcomes</li> <li>• performance appraisal systems</li> </ul> Team measures may include <ul style="list-style-type: none"> <li>• performance indicators</li> </ul>
<b>Teams</b>	Teams refer to: <ul style="list-style-type: none"> <li>• both defined teams and to work groups who interact to achieve work outcomes and/or to address a specific function or issue</li> </ul>
<b>Achieving team goals</b>	Achieving team goals typically involves: <ul style="list-style-type: none"> <li>• cooperation with own team members and with other teams and work areas</li> </ul>
<b>Workplace language</b>	Everyday workplace language is used and may include: <ul style="list-style-type: none"> <li>• commonly used technical terms</li> </ul>
<b>Communication systems</b>	Communication systems reflect the culture of the workplace and the workforce. This may include: <ul style="list-style-type: none"> <li>• communicating with people from diverse cultural backgrounds and with people with limited English language and literacy skills</li> </ul>

## Unit Sector(s)

<b>Unit sector</b>	People management/planning/logistics
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## Competency field

<b>Competency field</b>	
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**Co-requisite units**

Co-requisite units		

## FDFPPL3001A Participate in improvement processes

### Modification History

Not applicable.

### Unit Descriptor

<b>Unit descriptor</b>	This unit of competency covers to skills and knowledge required to participate in performance improvement processes that involve systematic analysis of performance to identify and propose opportunities for improvement.
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### Application of the Unit

<b>Application of the unit</b>	<p>This unit has application in a work environment where the worker has scope to investigate and participate in improvement processes.</p> <p>Where structured analysis and investigation is not required to participate in improvement programs, this unit does not apply.</p>
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### Licensing/Regulatory Information

Not applicable.

### Pre-Requisites

<b>Prerequisite units</b>		

## Employability Skills Information

<b>Employability skills</b>	This unit contains employability skills.
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## Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.	Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.
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## Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Identify opportunities for improvement	1.1.Barriers to good practice or optimal performance are identified 1.2.Scope of issue or problem to be addressed is clearly defined
2. Identify information requirements	2.1.Data required to investigate improvement opportunity is identified 2.2.Appropriate data collection methods are selected 2.3.Additional resources available to support investigation are identified
3. Analyse the issue or problem	3.1.Techniques required to investigate nature of issue or problem are selected and applied 3.2.A detailed description of the issue or problem is developed 3.3.Possible causes are identified and tested 3.4.Options for improvement are identified and assessed
4. Recommend options for improvement	4.1.Preferred options are identified and described 4.2.Recommendations are presented in formats appropriate to the issue and the audience 4.3.Recommendations are consistent with data collected and analysed
5. Participate in implementing	5.1.Improvement trials are supported 5.2.Improvement proposals are evaluated and refined

ELEMENT	PERFORMANCE CRITERIA
improvement proposals	<p>5.3. Operating procedures are updated and communicated to reflect implementation of improved practices</p> <p>5.4. Improvement in performance is monitored</p>

## Required Skills and Knowledge

### REQUIRED SKILLS AND KNOWLEDGE

This section describes the skills and knowledge required for this unit.

#### Required skills

##### *Ability to:*

- identify nature and scope of improvement opportunity
- consult others to confirm improvement opportunity definition
- determine data collection requirements and appropriate collection methods
- identify resources requirements to support investigation, such as negotiating access to resources as required, and where required, identifying expertise or improvement team members
- collect data, such as collecting samples and taking measurements
- determine and apply appropriate data analysis techniques
- draw conclusions based on the data collected and analysed
- communicate findings in forms appropriate to the nature of the issue and the audience
- receive and take account of feedback
- participate in related trials and/or changes to work practices arising from improvement proposals
- monitor and document results of trials/implementation and participate in modifying change to support ongoing improvement
- use oral communication skills/language competence to fulfil the job role as specified by the organisation, including questioning, active listening, asking for clarification and seeking advice from supervisor
- work cooperatively within a culturally diverse workforce

#### Required knowledge

##### *Knowledge of:*

- objectives to be addressed by improvement proposals, such as quality, occupational health and safety (OHS), environmental management, cost, efficiency and job satisfaction

**REQUIRED SKILLS AND KNOWLEDGE**

- the context in which improvement occurs, including capital expenditure and labour budgets, equipment capacity and production targets
- workplace approach to structuring improvement processes
- resources available to the workplace to support improvement processes, including both internal and external resources
- data collection and analysis techniques appropriate to the nature of the improvement opportunity and the workplace
- communication techniques to support data collection, consultation and teamwork required to participate in improvement processes
- documentation management systems to support changes in work practices to reflect improvement processes

**Evidence Guide****EVIDENCE GUIDE**

The Evidence Guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.

**Overview of assessment**

Assessment must be carried out in a manner that recognises the cultural and literacy requirements of the assessee and is appropriate to the work performed. Competence in this unit must be achieved in accordance with food safety standards and regulations.

**Critical aspects for assessment and evidence required to demonstrate competency in this unit**

Evidence of ability to:

- identify opportunities for improvement and develop objectives and parameters for investigation
- plan study and data collection methods
- collect and analyse data and evidence to test ideas
- present improvement plans with evidence to support rationale
- implement and monitor improvement processes
- apply safe work practices and identify OHS hazards and controls
- ensure improvement plans reflect overall organisational objectives.

**Context of and specific resources for assessment**

Assessment must occur in a real or simulated workplace where the assessee has access to:

- information storage and retrieval systems

<b>EVIDENCE GUIDE</b>	
	<ul style="list-style-type: none"> <li>• relevant technical information and personnel resources</li> <li>• opportunities to interact with others using typical workplace communication processes</li> <li>• relevant workplace documentation.</li> </ul>
<b>Method of assessment</b>	<p>This unit should be assessed together with other units of competency relevant to the work role. Examples could be:</p> <ul style="list-style-type: none"> <li>• FDFOP2015A Apply principles of statistical process control</li> <li>• FDFOP2064A Provide and apply workplace information</li> <li>• FDFPPL2001A Participate in work teams and groups</li> <li>• PMBQUAL390A Solve problems using quality tools.</li> </ul>
<b>Guidance information for assessment</b>	<p>To ensure consistency in one's performance, competency should be demonstrated on more than one occasion over a period of time in order to cover a variety of circumstances, cases and responsibilities, and where possible, over a number of assessment activities.</p>

## Range Statement

<b>RANGE STATEMENT</b>	
<p>The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.</p>	
<b>Process improvement</b>	Process improvement is typically investigated and developed in consultation with others
<b>Data analysis</b>	<p>Data analysis typically involves:</p> <ul style="list-style-type: none"> <li>• use of computer programs but may also be carried out manually</li> </ul>
<b>Problem solving tools</b>	Problem solving tools can include but are not limited to:

RANGE STATEMENT	
	<ul style="list-style-type: none"> <li>• fishbone diagrams/cause and effect diagrams</li> <li>• workflow analysis</li> <li>• Pareto diagrams</li> <li>• SWOT analysis</li> </ul>

## Unit Sector(s)

Unit sector	People management/planning/logistics
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## Competency field

Competency field	
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## Co-requisite units

Co-requisite units		

## FDFPPL3002A Report on workplace performance

### Modification History

Not applicable.

### Unit Descriptor

<b>Unit descriptor</b>	This unit of competency covers the skills and knowledge required to collate and maintain workplace records to enable the monitoring and reporting of workplace performance.
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### Application of the Unit

<b>Application of the unit</b>	This unit would typically apply to a team leader or person responsible for monitoring and reporting on performance of a work area or section.
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### Licensing/Regulatory Information

Not applicable.

### Pre-Requisites

<b>Prerequisite units</b>		

### Employability Skills Information

<b>Employability skills</b>	This unit contains employability skills.
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## Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.	Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.
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## Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Identify recording and reporting requirements	1.1. The purpose of recording performance-related information is identified 1.2. Recording and reporting responsibilities are identified 1.3. Recording and reporting systems and formats are identified
2. Maintain workplace information	2.1. Records are complete, timely and accurate 2.2. Performance information is recorded in required format to meet workplace reporting requirements 2.3. Errors or discrepancies in recording are identified and corrected or notified to appropriate personnel 2.4. Variances are identified, investigated and reported according to workplace procedure 2.5. Requests for information are assessed, prioritised and addressed to meet required timelines
3. Maintain security of workplace information	3.1. Access levels and authorities are identified 3.2. Security of workplace records and reports is maintained 3.3. Security breaches are identified and reported to appropriate personnel

## Required Skills and Knowledge

### REQUIRED SKILLS AND KNOWLEDGE

## REQUIRED SKILLS AND KNOWLEDGE

This section describes the skills and knowledge required for this unit.

### Required skills

#### *Ability to:*

- identify and use recording/reporting formats and systems
- identify information security requirements and procedures for responding to/reporting a security breach
- collect and collate information to be recorded as required
- assess information to confirm that it is complete and accurate and follow up inaccurate recording with relevant personnel
- identify significant performance variation, investigate and report cause/s
- prepare reports in required format to meet reporting timelines
- respond to information requests on a timely basis
- use oral communication skills/language competence to fulfil the job role as specified by the organisation, including questioning, active listening, asking for clarification and seeking advice from supervisor
- work cooperatively within a culturally diverse workforce

### Required knowledge

#### *Knowledge of:*

- the purpose and responsibilities for the information records and reports to be maintained or produced, including accuracy levels and timeliness of recording and reporting
- techniques used to collate and assess information, including typical recording outcomes to identify unusual or incorrectly recorded information
- likely causes of variation and related reporting responsibilities
- information system access levels and codes, such as levels within software
- communication skills relevant to reporting role

## Evidence Guide

### EVIDENCE GUIDE

The Evidence Guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.

#### Overview of assessment

Assessment must be carried out in a manner that recognises the cultural and literacy requirements of the

<b>EVIDENCE GUIDE</b>	
	<p>assessee and is appropriate to the work performed. Competence in this unit must be achieved in accordance with food safety standards and regulations.</p>
<b>Critical aspects for assessment and evidence required to demonstrate competency in this unit</b>	<p>Evidence of ability to:</p> <ul style="list-style-type: none"> <li>• describe the reporting and recording systems and procedures for work area</li> <li>• record information on work performance in accordance with reporting procedures</li> <li>• report variances and inconsistencies</li> <li>• maintain security of work documentation.</li> </ul>
<b>Context of and specific resources for assessment</b>	<p>Assessment must occur in a real or simulated workplace where the assessee has access to:</p> <ul style="list-style-type: none"> <li>• advice on workplace policies, codes of practice and procedures</li> <li>• workplace information/records</li> <li>• recording/reporting formats and systems.</li> </ul>
<b>Method of assessment</b>	<p>This unit should be assessed together with core units and other units of competency relevant to the function or work role.</p>
<b>Guidance information for assessment</b>	<p>To ensure consistency in one's performance, competency should be demonstrated on more than one occasion over a period of time in order to cover a variety of circumstances, cases and responsibilities, and where possible, over a number of assessment activities.</p>

## Range Statement

<b>RANGE STATEMENT</b>	
<p>The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.</p>	
<b>Policies and procedures</b>	<p>Work is carried out in accordance with company policies, procedures, regulatory and licensing requirements, legislative requirements and</p>

<b>RANGE STATEMENT</b>	
	industrial awards and agreements
<b>Information recorded and reported</b>	<p>Information recorded and reported may include but is not limited to:</p> <ul style="list-style-type: none"> <li>• collation of information recorded by others, such as timesheets, log sheets, recipes/specifications, operating procedures, production statistics, downtime, labour and materials usage levels</li> </ul>
<b>Recording systems</b>	<p>Recording systems may:</p> <ul style="list-style-type: none"> <li>• be carried out manually or involve the use of use of planning and systems control software, such as SAP and MRPII</li> </ul>

## Unit Sector(s)

<b>Unit sector</b>	People management/planning/logistics
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## Competency field

<b>Competency field</b>	
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## Co-requisite units

<b>Co-requisite units</b>		

## FDFPPL3004A Lead work teams and groups

### Modification History

Not applicable.

### Unit Descriptor

<b>Unit descriptor</b>	This unit of competency covers the skills and knowledge required to plan to achieve work requirements, secure resources and monitor the outputs of a work team or group.
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### Application of the Unit

<b>Application of the unit</b>	This unit can apply to people with formal responsibility for team/group leadership and to those with occasional responsibility for this role.
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### Licensing/Regulatory Information

Not applicable.

### Pre-Requisites

<b>Prerequisite units</b>		

### Employability Skills Information

<b>Employability skills</b>	This unit contains employability skills.
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## Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.	Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.
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## Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Negotiate and communicate team objectives	<p>1.1. Team goals, tasks and responsibilities are communicated and agreed with team members</p> <p>1.2. Team performance standards and measures are communicated and agreed with team members</p>
2. Plan the work activity	<p>2.1. Individual roles and responsibilities of team members are assigned in consultation with others</p> <p>2.2. Work roles are allocated to take account of team goal and the skills and expertise of each team member</p> <p>2.3. Resources required to achieve work outcomes are identified and secured</p> <p>2.4. Development needs of team members are identified and addressed</p>
3. Manage team work to achieve required outcomes	<p>3.1. Work progress is monitored against timelines and performance measures</p> <p>3.2. Team members are kept informed of progress towards achieving team performance indicators</p> <p>3.3. Potential barriers to achieving team goals are identified and corrective action taken</p> <p>3.4. Team performance variances are identified, investigated and reported according to workplace reporting requirements</p> <p>3.5. Team members are encouraged to actively contribute to team growth and development</p> <p>3.6. Workplace information systems and procedures are followed to record and report on team performance</p>

## Required Skills and Knowledge

### REQUIRED SKILLS AND KNOWLEDGE

This section describes the skills and knowledge required for this unit.

#### Required skills

##### *Ability to:*

- communicate and agree on team goals, performance standards and performance measures within the context of workplace arrangements for team or group work
- establish and secure resources, such as labour (crew levels and competency profiles) and other resources as required
- develop plans and schedules to achieve team goals, including the ability to assess impact of planning decisions on related issues, such as impact on other work areas, resource utilisation and costs
- facilitate group processes, including mediating and resolving different interests, personal and work styles as required and encouraging/providing opportunities for active participation of team members
- allocate and negotiate work roles and responsibilities in consultation with team members to match work requirements and skills and abilities of team members
- identify and address learning needs of team members
- provide a mentoring role to team members
- monitor team outputs against objectives and make adjustments as required to achieve plan
- monitor resource utilisation against plan
- provide feedback on team and individual performance according to workplace feedback procedures
- represent and advocate on behalf of the team in other workplace forums as required
- use communication techniques appropriate to the audience, such as communicating with people from diverse cultural backgrounds and with people with limited ability to speak or understand English
- record information on team performance as required
- use oral communication skills/language competence to fulfil the job role as specified by the organisation, including questioning, active listening, asking for clarification and seeking advice from supervisor
- work cooperatively within a culturally diverse workforce

#### Required knowledge

##### *Knowledge of:*

- facilitation techniques and communication skills to support the active engagement and participation of team members in team processes
- work procedures relevant to team tasks and related occupational health and safety (OHS), food safety, quality and environmental management issues, hazards and control measures

**REQUIRED SKILLS AND KNOWLEDGE**

- workplace planning and performance measurement systems and processes
- methods used to measure achievement of personal and team goals
- resource allocation systems used in the workplace as appropriate to secure relevant resources required by the team or group
- work capacity, skills and knowledge of team or work group members in order to allocate roles appropriate to skill level and plan development opportunities
- competency requirements of work functions, including any special work conditions that may be covered by additional licensing or certification requirements
- duty of care when allocating work roles and responsibilities
- competency identification and training arrangements in the workplace
- communication skills required to represent and advocate on behalf of the team or work group
- stages of team development
- recording and reporting system and responsibilities

**Evidence Guide****EVIDENCE GUIDE**

The Evidence Guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.

**Overview of assessment**

Assessment must be carried out in a manner that recognises the cultural and literacy requirements of the assessee and is appropriate to the work performed. Competence in this unit must be achieved in accordance with food safety standards and regulations.

**Critical aspects for assessment and evidence required to demonstrate competency in this unit**

Evidence of ability to:

- ensure all team members understand and agree to team goals and expectations and their personal responsibilities
- plan team activity to take into account team goals, timelines, individual capabilities and resources
- monitor outcomes against timelines and communicate progress with team members
- apply interpersonal communication skills to engage and support team members
- support positive outcomes for the individual and team.



<b>EVIDENCE GUIDE</b>	
<b>Context of and specific resources for assessment</b>	<p>Assessment must occur in a real or simulated workplace where the assessee has access to:</p> <ul style="list-style-type: none"> <li>• opportunities to facilitate team processes</li> <li>• workplace arrangements for establishing company, workplace and team goals</li> <li>• methods used to measure and report on performance against target</li> <li>• planning processes</li> <li>• resource management and allocation systems as appropriate</li> <li>• resources required to achieve team outcomes</li> <li>• competency recording and workplace training arrangements.</li> </ul>
<b>Method of assessment</b>	<p>This unit should be assessed together with core units and other units of competency relevant to the function or work role. An example could be:</p> <ul style="list-style-type: none"> <li>• FDFPPL3003A Support and mentor individuals and groups.</li> </ul>
<b>Guidance information for assessment</b>	<p>To ensure consistency in one's performance, competency should be demonstrated on more than one occasion over a period of time in order to cover a variety of circumstances, cases and responsibilities, and where possible, over a number of assessment activities.</p>

## Range Statement

<b>RANGE STATEMENT</b>	
<p>The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.</p>	
<b>Policies and procedures</b>	<p>Work is carried out in accordance with company procedures, regulatory and licensing requirements, legislative requirements and industrial awards and agreements</p>

<b>RANGE STATEMENT</b>	
<b>Personal and team measures</b>	Personal measurement can include: <ul style="list-style-type: none"> <li>• achievement of work outcomes</li> <li>• performance appraisal systems</li> </ul> Team measures can include: <ul style="list-style-type: none"> <li>• performance indicators</li> </ul>
<b>Responsibility for leading a team or group</b>	Responsibility for leading a team or group may be: <ul style="list-style-type: none"> <li>• a formal or informal role</li> <li>• an occasional role</li> </ul>
<b>Teams</b>	Teams refer to: <ul style="list-style-type: none"> <li>• both defined teams and to work groups who interact to achieve work outcomes and/or to address a specific function or issue</li> </ul>
<b>Communication systems</b>	Communication systems reflect the culture of the workplace and the workforce

## Unit Sector(s)

<b>Unit sector</b>	People management/planning/logistics
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## Competency field

<b>Competency field</b>	
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## Co-requisite units

<b>Co-requisite units</b>		



## FDFPPL3005A Participate in an audit process

### Modification History

November 2011: update to imported unit.

### Unit Descriptor

<b>Unit descriptor</b>	This unit of competency covers the skills and knowledge required to participate in an internal audit process and is appropriate where internal audit processes are conducted to support externally audited programs.
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### Application of the Unit

<b>Application of the unit</b>	<p>This unit has application where auditing occurs in an area that the person is not directly responsible for and where they are required to follow a formal, structured process. It is designed to support participation in auditing a range of programs designed to identify hazards, assess risk and implement control measures. These may include but are not limited to occupational health and safety (OHS), quality and environmental management. At this level, the person would typically work under direction and may be required to operate within established audit procedures, such as those outlined in ISO 10011.</p> <p>Participation implies that the person can participate in all stages of an audit but is not responsible for negotiating audit scope, allocating audit tasks to others or reporting on audit outcomes.</p> <p>When applied to the pharmaceutical industry, FDFPH2001A Apply Good Manufacturing Practice procedures should be selected to support the application of this unit. FDFPH2001A incorporates content covered in FDFOP2063A Apply quality systems and procedures, and can be used as an alternative to this prerequisite unit for this sector.</p>
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## Licensing/Regulatory Information

Not applicable.

## Pre-Requisites

Prerequisite units		
	FDFOHS2001A	Participate in OHS processes
	FDFOP2063A	Apply quality systems and procedures
	MSAENV272B	Participate in environmentally sustainable work practices

## Employability Skills Information

Employability skills	This unit contains employability skills.
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## Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.	Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.
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## Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Participate in planning an audit	1.1.Roles and responsibilities for participating in the audit are identified 1.2.The purpose and scope of the audit is identified 1.3.Information and resources required to conduct the audit are identified and located
2. Participate in	2.1.Information is collected that is adequate,

ELEMENT	PERFORMANCE CRITERIA
conducting an audit	<p>representative and meets audit requirements</p> <p>2.2. Information is analysed to assess adequacy of performance against program</p> <p>2.3. Records are reviewed to confirm compliance with the program</p> <p>2.4. Compliance with the program is observed in the workplace</p> <p>2.5. Areas requiring corrective action are identified</p>
3. Report and follow up audit outcomes	<p>3.1. Situations presenting an imminent and serious risk to the program objectives are identified and reported immediately in accordance with reporting requirements</p> <p>3.2. Audit reports are prepared to address audit scope requirements</p> <p>3.3. The results of the audit are communicated according to audit purpose and requirements</p> <p>3.4. A corrective action plan is developed</p>

## Required Skills and Knowledge

### REQUIRED SKILLS AND KNOWLEDGE

This section describes the skills and knowledge required for this unit.

#### Required skills

##### *Ability to:*

- identify personal roles and responsibilities for participating in the audit process
- identify audit purpose, scope, steps and timelines
- identify and locate information required to conduct the audit
- review workplace documentation to confirm that required information is available
- prepare tools as required to collect information, such as checklists and interview schedules
- identify any changes that have occurred in the workplace since initiating the program or since the last program audit that could affect program outcomes
- apply appropriate questioning, observation and related communication skills to support information collection
- review records, conduct interviews, observe workplace practice and collect other relevant information as required to assess compliance with program requirements
- take immediate action to report non-conformities that present an imminent and

## REQUIRED SKILLS AND KNOWLEDGE

- serious risk to the program objectives within level of responsibility
- identify, investigate and record evidence of non-conformance and judge significance
- assess the adequacy of the program by analysing the information collected against the program objectives
- form conclusions on audit outcomes based on an objective assessment of evidence collected
- report the findings of the audit in appropriate format
- communicate audit outcomes within level of responsibility using techniques and presentation styles appropriate to the audience
- where findings indicate either a failure to comply with the program or inadequacy of the program, participate in investigation of causes of failure and identification of corrective action options
- use oral communication skills/language competence to fulfil the job role as specified by the organisation, including questioning, active listening, asking for clarification and seeking advice from supervisor
- work cooperatively within a culturally diverse workforce

### Required knowledge

#### *Knowledge of:*

- the purpose and intent of the program being audited
- personal roles and responsibilities in the audit process and related responsibilities of other members of the audit team
- the purpose and stages involved in the audit process
- workplace information and related information management systems
- techniques for collecting information, including options, relevance and strengths and weaknesses of each method to ensure data is adequate and representative
- data analysis methods relevant to the audit process
- communication skills and techniques appropriate to the workplace
- technical knowledge relevant to the program being audited in order to verify compliance and assess adequacy of existing control measures, including relevant industry standards
- purpose and responsibilities for maintaining records

## Evidence Guide

### EVIDENCE GUIDE

The Evidence Guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment

<b>EVIDENCE GUIDE</b>	
Guidelines for the Training Package.	
<b>Overview of assessment</b>	Assessment must be carried out in a manner that recognises the cultural and literacy requirements of the assessee and is appropriate to the work performed. Competence in this unit must be achieved in accordance with food safety standards and regulations.
<b>Critical aspects for assessment and evidence required to demonstrate competency in this unit</b>	<p>Evidence of ability to:</p> <ul style="list-style-type: none"> <li>• identify the requirements and procedures for participating in the audit</li> <li>• identify the purpose and scope of the audit</li> <li>• collect, assess and provide information as required by the audit process</li> <li>• identify and act on inconsistencies or issues which may affect audit processes or outcomes</li> <li>• comply with audit requirements</li> <li>• follow up on audit outcomes.</li> </ul>
<b>Context of and specific resources for assessment</b>	<p>Assessment must occur in a real or simulated workplace where the assessee has access to:</p> <ul style="list-style-type: none"> <li>• workplace program documentation</li> <li>• audit procedures and standards as applied in the workplace</li> <li>• advice on related legislation, industry standards and codes of practice</li> <li>• information systems and data collection technology</li> <li>• reporting formats/requirements</li> <li>• workplace/personnel as required to collect data/observe compliance.</li> </ul>
<b>Method of assessment</b>	<p>This unit should be assessed together with core units and other units of competency relevant to the function or work role. In addition, the following optional unit may be relevant:</p> <ul style="list-style-type: none"> <li>• BSBRES401A Analyse and present research information.</li> </ul>
<b>Guidance information for assessment</b>	To ensure consistency in one's performance, competency should be demonstrated on more than one occasion over a period of time in order to cover a variety of circumstances, cases and responsibilities, and where possible, over a number of assessment activities.



## Range Statement

RANGE STATEMENT	
<p>The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.</p>	
<b>Audits</b>	Audits may be conducted against workplace programs and/or legislative requirements. Audits may be undertaken for advisory or regulatory purposes and may be led by internal or external auditors
<b>Information collection methods</b>	<p>Information collection methods include:</p> <ul style="list-style-type: none"> <li>• interviews</li> <li>• observation</li> <li>• review of workplace records</li> <li>• accessing relevant technical information</li> </ul>
<b>Corrective action plans</b>	A corrective action plan identifies non-conformance, corrective actions, date by which action must be taken and any other follow up requirements

## Unit Sector(s)

<b>Unit sector</b>	People management/planning/logistics
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## Competency field

<b>Competency field</b>	
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## Co-requisite units

Co-requisite units		

## FDFPPL4005A Establish process capability

### Modification History

November 2011: inclusion of correct prerequisite.

### Unit Descriptor

<b>Unit descriptor</b>	This unit of competency covers the skills and knowledge required to study process data to determine process capability using statistical process control techniques.
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### Application of the Unit

<b>Application of the unit</b>	This unit applies to people responsible for establishing control charts and related sampling plans.
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### Licensing/Regulatory Information

Not applicable.

### Pre-Requisites

<b>Prerequisite units</b>		
	FDFOP2015A	Apply principles of statistical process control* <i>FDFOP2061A Use numerical applications in the workplace</i>
	FDFTEC4007A	Describe and analyse data using mathematical principles

## Employability Skills Information

<b>Employability skills</b>	This unit contains employability skills.
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## Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.	Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.
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## Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Prepare to conduct a capability study	1.1.The scope and purpose of the process is identified 1.2.A representative data sample is determined 1.3.Data collection techniques are selected 1.4.Data is collected to meet sampling requirements
2. Analyse data to determine process capability	2.1.Appropriate statistical analysis techniques are selected and applied 2.2.Process stability and extent of variation are identified 2.3.The target mean for the process is identified 2.4.Process control parameters are calculated 2.5.Related data sampling requirements are specified

## Required Skills and Knowledge

<b>REQUIRED SKILLS AND KNOWLEDGE</b>
This section describes the skills and knowledge required for this unit.
<b>Required skills</b>
<i>Ability to:</i> <ul style="list-style-type: none"> <li>establish process scope, boundaries and related information on process purpose,</li> </ul>

## REQUIRED SKILLS AND KNOWLEDGE

- such as documentation, including product or process specifications where available
- apply sampling techniques to determine nature and extent of data collection to provide a reliable indication of process performance
- select and apply data collection methods (where data collection is automated, this may involve use of software and where data collection is to be carried out by operators, it involves communicating requirements and designing appropriate formats for recording data)
- confirm that data collected is complete and complies with sampling requirements
- identify characteristics of a normal distribution
- apply appropriate statistical techniques, including standard deviation to analyse data, and techniques to distinguish common and special causes of variation
- establish process capability, including establishing upper and lower limits and instructions for identifying and responding to trends
- develop a related data sampling plan, including advice on sampling regimes following corrective action
- use communication skills to interpret and complete work information to support operations of work team or area
- demonstrate and support cooperative work practices within a culturally diverse workforce

## Required knowledge

### *Knowledge of:*

- data collection requirements and techniques for collection of actual (quantitative) and variable data
- techniques to determine and validate a sampling plan capable of providing reliable information representative of the total population
- appropriate formats for presenting sampling plan requirements and related communication systems
- workplace conventions/formats for presenting and monitoring process capability information, such as control chart including a target mean, upper and lower limits and advice on how to interpret and confirm trends, and upper and lower warning limits where required
- process knowledge to identify possible causes of special variation
- the difference between a stable process and a capable process and action required to improve process performance in each case

## Evidence Guide

### EVIDENCE GUIDE

The Evidence Guide provides advice on assessment and must be read in conjunction with the

<b>EVIDENCE GUIDE</b>	
performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.	
<b>Overview of assessment</b>	Assessment must be carried out in a manner that recognises the cultural and literacy requirements of the assessee and is appropriate to the work performed. Competence in this unit must be achieved in accordance with food safety standards and regulations.
<b>Critical aspects for assessment and evidence required to demonstrate competency in this unit</b>	<p>Evidence of ability to:</p> <ul style="list-style-type: none"> <li>• determine scope of and purpose of study</li> <li>• establish data collection parameters</li> <li>• select data collection technique</li> <li>• collect and analyse data</li> <li>• determine process capability</li> <li>• complete workplace records as required</li> <li>• apply safe work practices and identify occupational health and safety (OHS) hazards and controls.</li> </ul>
<b>Context of and specific resources for assessment</b>	<p>Assessment must occur in a real or simulated workplace where the assessee has access to:</p> <ul style="list-style-type: none"> <li>• workplace processes and procedures</li> <li>• workplace documentation, including process specifications/purpose, sampling plan and control chart formats, and related data collection methods, such as log sheets</li> <li>• data collection and analysis software and systems as appropriate</li> <li>• communication systems.</li> </ul>
<b>Method of assessment</b>	This unit should be assessed together with core units and other units of competency relevant to the function or work role.
<b>Guidance information for assessment</b>	To ensure consistency in one's performance, competency should be demonstrated on more than one occasion over a period of time in order to cover a variety of circumstances, cases and responsibilities, and where possible, over a number of assessment activities.

## Range Statement

RANGE STATEMENT	
The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.	
<b>Data collection</b>	Data collection is specified and may be collected by others
<b>Data analysis</b>	Data analysis typically involves the use of statistical analysis software

## Unit Sector(s)

<b>Unit sector</b>	People management/planning/logistics
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## Competency field

<b>Competency field</b>	
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## Co-requisite units

<b>Co-requisite units</b>		

# FDFSUG218A Operate a boiler - basic

## Modification History

New Unit based on *SUGPOBB2A Operate a boiler - basic*.

## Unit Descriptor

This unit describes the outcomes required for continuous and short term operation of a basic boiler and for start-up and shut down after a prolonged break. This unit is based on the boiler competency standards from the Worksafe Australia Standards for Users and Operators of Industrial Equipment NOHSC 1006 (2001). It should be selected where boiler operation is a certificated occupation. Boiler operators holding a ticket in Basic Boiler Operation from the relevant state regulatory authority will be granted equivalence in this unit *FDFSUG231A Operate a boiler basic* for the purpose of issuing a qualification.

## Application of the Unit

This unit has application in the sugar milling industry.

## Licensing/Regulatory Information

General workplace legislative and regulatory requirements apply to this unit; however there are no specific licensing or certification requirements at the time of publication.

## Pre-Requisites

There are no pre-requisite units for this competency standard.

## Employability Skills Information

This unit contains employability skills.

## Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.

Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.



## Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1 Prepare the boiler for operation	1.1 Health and safety hazards / maintenance requirements are identified and reported to appropriate personnel according to workplace reporting procedures 1.2 The boiler is purged according to workplace procedure 1.3 Services are confirmed and available 1.4 Pre-operational checks are conducted to confirm operational status of boiler and related equipment
2 Start and monitor boiler operation	2.1 The boiler is started and brought on line safely according to workplace procedures and manufacturer's specifications 2.2 Plant is operated within limits of manufacturer's specifications to meet workplace requirements 2.3 Equipment is monitored to confirm operating condition 2.4 Water quality is tested and adjusted as required 2.5 Sluice water is circulated to remove ash from boiler according to duty requirements 2.6 The workplace meets housekeeping standards
3 Analyse and respond to abnormal performance	3.1 Operating data and plant operating conditions are analysed to identify causes of abnormal performance 3.2 Corrective action is taken in accordance with workplace procedures in response to Hazards, out-of-specification test results and/or plant performance 3.3 Emergency procedures are implemented as required according to workplace procedures and manufacturer's recommendations
4 Handover boiler operations	4.1 Workplace records are maintained in accordance with statutory requirements and workplace procedures 4.2 Handover is carried out according to workplace procedure 4.3 Boiler operators are aware of boiler status and related equipment at completion of handover
5 Carry out an operational shutdown	5.1 The boiler is shut down according to workplace procedures and manufacturer's recommendations 5.2 Maintenance requirements are identified and reported according to workplace reporting procedure
6 Shutdown the boiler and prepare for an internal inspection	6.1 The boiler is shut down according to workplace procedures and manufacturer's recommendations 6.2 The boiler is cleaned internally and externally according to workplace procedures and manufacturer's recommendations 6.3 Valves and fittings are removed in preparation for maintenance
7 Store boiler in	7.1 The boiler is stored in the appropriate storage mode according to

ELEMENT	PERFORMANCE CRITERIA
shutdown mode	workplace procedures and manufacturer's recommendations
8 Record information	8.1 Workplace information is recorded according to workplace recording requirements

## Required Skills and Knowledge

This section describes the skills and knowledge required for this unit.

### Required skills include:

#### Ability to:

- access workplace information on combustion and operating requirements
- select, fit and use personal protective clothing and/or equipment
- identify and report hazards and potential hazards in the work area
- confirm status of boiler and related equipment including the fuel supply system, ash removal and services
- demonstrate purge procedure
- conduct pre-start checks including checking:
  - feed water supply and system
  - fuel supply system
  - fans and dampers
  - inspection doors
  - boiler valves - operation and position
  - combustion air supply system
  - boiler water level
- liaise with other work areas to advise of boiler status
- demonstrate set-up and start-up procedures in both manual and automatic modes
- monitor boiler operation including monitoring:
  - steam reticulation line pressure
  - boiler steam pressure
  - steam supply/usage
  - condensate tank level
  - bagasse levels
  - feedwater levels and pressure
  - fuel levels
  - boiler load
  - water quality
  - furnace pressure

- ash pit level and removal system
- balance draft system
- superheater temperature
- drum levels
- equipment condition
- conduct water quality test
- take corrective action in response to out-of-specification results
- report and/or record corrective action as required
- demonstrate shift handover procedure and confirm that replacement operators are aware of all relevant issues prior to completing handover
- demonstrate procedure to take boiler off line
- demonstrate procedure to shut-down and clean the boiler
- demonstrate removal of valves and fittings to prepare the boiler for inspection
- demonstrate procedure to store boiler
- demonstrate emergency procedures and related re-start including the use of emergency fuel supply
- maintain workplace records
- maintain work area to meet housekeeping standards

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**Required knowledge includes:****Knowledge of:**

- relevant state OHS legislation, standards and codes of practice relating to work responsibilities
- safe work procedures including awareness of health and safety hazards related to boiler operation and associated control measures
- purpose and limitations of protective clothing and equipment
- hierarchy of hazard control measures
- duty of care of the boiler operator
- purpose and basic principles of combustion and boiler operation including principles of heat transfer and properties of steam
- boiler system layout and steam cycle
- the purpose of purging a boiler
- the effect of fuel quality on boiler operation
- impact of ash removal on efficient boiler operation and impact of sluice water flow
- relationship to other processes including an understanding of the impact of sudden load changes on boiler pressure and plant operation
- purpose and limitations of protective clothing and equipment
- methods used to render equipment safe to inspect, maintain and/or clean including lock-out, tag-out and isolation procedures
- water quality test procedures
- typical causes of water/condensate contamination and corrective action required
- equipment purpose and basic operating principles including high pressure feed pumps, fuel

supply system and dual fuel systems as required by boiler type

- operating requirements and parameters
- procedures for responding to emergency situations including safe shutdown procedure
- handover and long term shut down and storage procedures
- cleaning procedures and grate dumping
- environmental issues and controls including an understanding of sluice water usage
- requirements to liaise/advise related work areas
- housekeeping standards for the work area
- reporting and recording systems including both statutory and workplace requirements

## Evidence Guide

The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.	
Overview of assessment	Assessment must be carried out in a manner that recognises the cultural and literacy requirements of the assessee and is appropriate to the work performed.
Critical aspects for assessment and evidence required to demonstrate competency in this unit	<p>Evidence of ability to:</p> <ul style="list-style-type: none"> <li>• confirm status of boiler and related equipment including the fuel supply system, ash removal and services</li> <li>• demonstrate purge procedure</li> <li>• conduct pre-start checks</li> <li>• liaise with other work areas to advise of boiler status</li> <li>• demonstrate set up and start up procedures in both manual and automatic modes</li> <li>• conduct water quality test</li> <li>• take corrective action in response to out-of-specification results</li> <li>• report and/or record corrective action</li> <li>• demonstrate emergency procedures and related re-start.</li> </ul>
Context of and specific resources for assessment	<p>Assessment must occur in a real or simulated workplace where the assessee has access to:</p> <ul style="list-style-type: none"> <li>• Boiler and related equipment. This includes fuel supply, grate cleaning and ash removal systems</li> <li>• Relevant codes and standards</li> <li>• Operating procedures and related advice on equipment operation</li> </ul>

	<ul style="list-style-type: none"> <li>• Personal protective clothing and equipment</li> <li>• Communication systems and equipment</li> <li>• Housekeeping standards and procedures</li> <li>• Workplace information recording systems, requirements and procedures.</li> </ul>
Method of assessment	<p>Other units of competency relevant to the work role should be assessed in conjunction with this unit. This may include:</p> <ul style="list-style-type: none"> <li>• FDFOP2030A Operate a process control interface</li> </ul>
Guidance information for assessment	<p>To ensure consistency in one's performance, competency should be demonstrated on more than one occasion over a period of time in order to cover a variety of circumstances, cases and responsibilities, and where possible, over a number of assessment activities.</p>

## Range Statement

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.

<b>Policies and procedures</b>	<p>Work is carried out in accordance with company policies and procedures, licensing requirements, manufacturer's recommendations, legislative requirements, codes of practice and industrial awards and agreements.</p>
<b>Codes of Practice</b>	<p>Codes of practice include the Sugar Milling Operations Industry Code of Practice.</p>
<b>Workplace information</b>	<p>Workplace information can include</p> <ul style="list-style-type: none"> <li>• Standard Operating Procedures (SOPs)</li> <li>• manufacturer's specifications.</li> </ul>
<b>Boilers [basic]</b>	<p>Boiler (basic) and related equipment may be</p> <ul style="list-style-type: none"> <li>• fully or partly attended, and include</li> <li>• single fixed combustion air supply</li> <li>• non-modulating single heat source</li> <li>• fixed firing rate.</li> </ul> <p>Operation and monitoring of equipment and processes typically requires the use of control panels and systems.</p>

<b>Hazards</b>	Hazards typically include: <ul style="list-style-type: none"><li>• working around hot surfaces</li><li>• manual handling</li><li>• steam, hot gasses and fuel leaks.</li></ul>
<b>Services</b>	Services can include fuel supply of bagasse, coal, gas, oil or other fuel types, steam, mill and instrumentation air, cooling water, general mill water supply and cooling water.
<b>Equipment status</b>	Confirming equipment status involves: <ul style="list-style-type: none"><li>• conducting relevant pre-start checks</li><li>• confirming that cleaning standards are met</li><li>• all safety guards and manholes are in place</li><li>• equipment is operational.</li></ul>
<b>Internal cleaning</b>	Internal cleaning is carried out in accordance with statutory requirements regarding confined space entry and does not typically include chemical cleaning.
<b>Teamwork</b>	Work may require the ability to work within a team environment.
<b>Information systems</b>	Information systems may be print or screen based.

## Unit Sector(s)

Sugar Milling.

## FDFSUG222A Operate a waste water treatment system

### Modification History

New Unit based on *SUGPWWT2A Operate a waste water treatment system*.

### Unit Descriptor

This unit describes the outcomes required to operate waste water treatment systems to comply with workplace requirements, trade waste agreements and site environmental authority.

### Application of the Unit

This unit has application in the sugar milling industry.

### Licensing/Regulatory Information

Not applicable.

### Pre-Requisites

There are no pre-requisite units for this competency standard.

### Employability Skills Information

This unit contains employability skills.

### Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.

Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.

### Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1 Prepare the waste water treatment	1.1 Chemicals and test equipment are available and ready for use

<b>ELEMENT</b>	<b>PERFORMANCE CRITERIA</b>
process for operation	1.2 Services are confirmed as available and ready for operation 1.3 Pre-operational checks are conducted 1.4 Instrumentation and test equipment is calibrated to manufacturer's specifications to meet workplace requirements 1.5 Health and safety hazards/maintenance requirements are identified and reported to appropriate personnel according to workplace reporting procedures
2 Operate and monitor the waste water treatment process	2.1 The waste water system is started up according to company procedures 2.2 Plant is operated within limits of manufacturer's specifications to meet workplace requirements 2.3 Equipment is monitored to confirm operating condition 2.4 Waste water quality is monitored, tested and adjusted as required to meet water standards as defined by site licence 2.5 First flush systems are operated during rainfall events 2.6 The workplace meets housekeeping standards
3 Analyse and respond to abnormal performance	3.1 Water condition and plant operating conditions are analysed to identify causes of abnormal performance 3.2 Corrective action is taken in accordance with workplace procedures in response to hazards, out-of-specification test results and/or plant performance 3.3 Emergency procedures are implemented as required according to workplace procedures and manufacturer's recommendations
4 Handover waste water treatment system	4.1 Workplace records are maintained in accordance with statutory requirements and workplace procedures 4.2 Handover is carried out according to workplace procedure 4.3 Waste water treatment operators are aware of system status and related equipment at completion of handover
5 Shutdown the waste water treatment system	5.1 The waste water treatment system is shut down according to workplace procedures 5.2 The waste water treatment system is prepared for storage in shut down mode 5.3 Maintenance requirements are identified and reported according to workplace reporting procedure

## Required Skills and Knowledge

This section describes the skills and knowledge required for this unit.



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**Required skills include:**

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**Ability to:**

- access workplace information to identify waste treatment requirements
- select, fit and use personal protective clothing and/or equipment
- confirm services are available and equipment is clean and ready for operation
- handle chemicals safely including follow correct preparation, handling and storage procedures and use of appropriate protective clothing and equipment
- conduct pre-start checks
- liaise with other work areas as required
- demonstrate wastewater system operating procedures in both manual and automatic modes
- demonstrate first flush system operating procedures in both manual and automatic modes
- monitor waste water system operation including monitoring:
  - chemical addition rates and residuals
  - temperatures
  - flow rates
  - equipment condition including calibration of instruments
  - tests as required
  - dissolved oxygen levels
  - pH levels
- conduct water quality tests
- take corrective action in response to out-of-specification results or non-compliance
- monitor supply and quality of waste water to and from the process
- report and/or record corrective action as required
- demonstrate emergency procedures to control chemical spills or other major incidents relevant to the workplace
- demonstrate shift handover procedure
- demonstrate an operational shut down procedure
- maintain workplace records to meet the requirements of the workplace and site environmental authority
- maintain work area to meet housekeeping standards

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**Required knowledge includes:**

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**Knowledge of:**

- relevant state OHS legislation, environmental acts and policies, standards and codes of practice relating to work responsibilities including awareness of standards set out in site license arrangements
- safe work procedures including awareness of health and safety hazards related to waste water system operation and associated control measures
- hierarchy of hazard control measures
- purpose and limitations of protective clothing and equipment
- methods used to render equipment safe to inspect, maintain and/or clean including lock-out,

tag-out and isolation procedures

- water cycles for trade waste, storm water and sewerage including sources and flow patterns
- purpose and standards required by environmental agreements and responsibilities
- company policy relating to environmental performance
- consequences of non-conformance
- waste characteristics and treatment methods
- sampling and test procedures as appropriate
- purpose of chemicals used
- purpose of first flush systems and their relationship with the wastewater treatment system
- operating requirements and parameters
- water quality sampling and test procedures including the purpose of test and safe use, care and storage of relevant test equipment, interpretation and recording of results
- typical causes of non-conforming water quality and corrective action required
- equipment purpose and basic operating principles of waste water treatment equipment and methods
- requirements of both operational and long term shut down conditions to ensure the equipment is left in a safe state for the period of the shutdown and to minimise any delays in future start up
- housekeeping standards for the work area
- reporting and recording systems including both statutory and workplace requirements

## Evidence Guide

The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.

Overview of assessment

Assessment must be carried out in a manner that recognises the cultural and literacy requirements of the assessee and is appropriate to the work performed.

Critical aspects for assessment and evidence required to demonstrate competency in this unit

Evidence of ability to:

- handle chemicals safely
- demonstrate wastewater system operating procedures
- demonstrate first flush system operating procedures
- conduct water quality tests
- take corrective action in response to out-of-specification results or non-compliance
- monitor supply and quality of waste water
- report and/or record corrective action
- demonstrate emergency procedures
- demonstrate shift handover procedure

	<ul style="list-style-type: none"> <li>demonstrate an operational shut down procedure.</li> </ul>
Context of and specific resources for assessment	<p>Assessment must occur in a real or simulated workplace where the assessee has access to:</p> <ul style="list-style-type: none"> <li>Waste water treatment systems and related chemicals</li> <li>Test equipment</li> <li>Relevant advice on environmental agreements</li> <li>Operating procedures and related advice on equipment operation</li> <li>Personal protective clothing and equipment</li> <li>Communication systems and equipment</li> <li>Housekeeping standards and procedures</li> <li>Workplace information recording systems, requirements and procedures.</li> </ul>
Method of assessment	Other units of competency relevant to the work role should be assessed in conjunction with this unit.
Guidance information for assessment	To ensure consistency in one's performance, competency should be demonstrated on more than one occasion over a period of time in order to cover a variety of circumstances, cases and responsibilities, and where possible, over a number of assessment activities.

## Range Statement

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.

<b>Policies and procedures</b>	Work is carried out in accordance with company policies and procedures, manufacturer's recommendations, legislative requirements, site licenses and trade waste service agreements and industrial awards and agreements. Legislation refers to environmental acts and regulations.
<b>Workplace information</b>	<p>Workplace information can include:</p> <ul style="list-style-type: none"> <li>Standard Operating Procedures (SOPs)</li> <li>manufacturer's specifications</li> </ul>
<b>Equipment</b>	Equipment may include

	<ul style="list-style-type: none"><li>• screens</li><li>• pH correction</li><li>• oil/grease skimmers</li><li>• settling and treatment ponds</li><li>• aeration units</li><li>• lagoons</li><li>• first flush systems and wetlands</li><li>• pumps and valves.</li></ul>
<b>Equipment status</b>	Confirming equipment status involves <ul style="list-style-type: none"><li>• conducting relevant pre-start checks</li><li>• confirming that housekeeping standards are met</li><li>• all safety guards are in place</li><li>• equipment is operational.</li></ul>
<b>Hazards</b>	Hazards typically include handling chemicals, manual handling and flammable gases.
<b>Equipment operation and monitoring</b>	Operation and monitoring of equipment and processes typically requires the use of control panels and systems.
<b>Tests</b>	Typical tests may include <ul style="list-style-type: none"><li>• pH</li><li>• solids</li><li>• colour/turbidity</li><li>• flow rate</li><li>• settling rate</li><li>• settled volume</li><li>• DO</li><li>• BOD/COD levels.</li></ul>
<b>Teamwork</b>	Work may require the ability to work within a team environment.
<b>Information systems</b>	Information systems may be print or screen based.

## Unit Sector(s)

Sugar Milling.

## **FDFSUG308A Analyse and convey workplace information**

### **Modification History**

New Unit based on *SUGAECWE3A Analyse and convey workplace information*.

### **Unit Descriptor**

This unit describes the outcomes required to analyse and interpret information. It also involves preparing and presenting information to others. The presentation component of this unit supports the communication requirements for delivering workplace training.

### **Application of the Unit**

This unit has application in the sugar milling industry.

### **Licensing/Regulatory Information**

Not applicable.

### **Pre-Requisites**

There are no pre-requisite units for this competency standard.

### **Employability Skills Information**

This unit contains employability skills.

### **Elements and Performance Criteria Pre-Content**

Elements describe the essential outcomes of a unit of competency.

Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.

## Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1 Manage information	<ul style="list-style-type: none"><li>1.1 Information requirements are identified</li><li>1.2 Information systems are used to store, retrieve and update information</li><li>1.3 Consultative processes are used to collect and convey information</li><li>1.4 Methods used to collect, store, retrieve and convey information are reviewed and improved</li></ul>
2 Analyse information	<ul style="list-style-type: none"><li>2.1 Information is stored and collected in a format suitable for analysis and interpretation</li><li>2.2 Information collection is timely and relevant to the needs of individuals and teams</li><li>2.3 Information is collected, analysed and interpreted</li></ul>
3 Present information	<ul style="list-style-type: none"><li>3.1 Information is effectively communicated to individuals and groups</li><li>3.2 Communication takes into account social and cultural differences</li></ul>

## Required Skills and Knowledge

This section describes the skills and knowledge required for this unit.

### Required skills include:

#### Ability to:

- facilitate consultative processes
- use information storage and retrieval systems to access store and update information
- select appropriate methods to communicate with different audiences in the workplace
- collect information in appropriate format
- analyse and interpret information
- select appropriate presentation methods to convey information for different purposes
- structure information in a logical sequence
- recommend improvements to information management practices

### Required knowledge include:

#### Knowledge of:

- information recording, storage and retrieval systems
- consultative and group processes

- data collection and analysis techniques as required
- meeting procedures
- presentation techniques

## Evidence Guide

The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.	
Overview of assessment	Assessment must be carried out in a manner that recognises the cultural and literacy requirements of the assessee and is appropriate to the work performed.
Critical aspects for assessment and evidence required to demonstrate competency in this unit	Evidence of ability to: <ul style="list-style-type: none"> <li>• exchange work-related information</li> <li>• ask questions to inform work practice</li> <li>• apply work information to work practice.</li> </ul>
Context of and specific resources for assessment	Assessment must occur in a real or simulated workplace where the assessee has access to: <ul style="list-style-type: none"> <li>• Opportunities to interact with others using typical workplace communication processes</li> <li>• Typical group forums which can include work groups and committees</li> <li>• Typical workplace information</li> <li>• Standard forms and equipment (as required) for recording workplace information</li> <li>• Information storage and retrieval systems</li> </ul>
Method of assessment	Other units of competency relevant to the work role should be assessed in conjunction with this unit.
Guidance information for assessment	To ensure consistency in one's performance, competency should be demonstrated on more than one occasion over a period of time in order to cover a variety of circumstances, cases and responsibilities, and where possible, over a number of assessment activities.

## Range Statement

The range statement relates to the unit of competency as a whole. It allows for different work

environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.	
<b>Policies and procedures</b>	Work is carried out in accordance with company policies and procedures, manufacturer's recommendations, legislative requirements, codes of practice and industrial awards and agreements.
<b>Codes of Practice</b>	Codes of practice include the Sugar Milling Operations Industry Code of Practice.
<b>Communication content</b>	Subjects for communication may be of a general, procedural or technical nature. They can also include providing feedback to individuals on work performance and discussing issues which may be of a sensitive and/or confidential nature.
<b>Communication language</b>	Every day workplace language is used. This may include technical terms.
<b>Communication systems</b>	Communication systems reflect the culture of the workplace and the workforce
<b>Communication processes</b>	Interactive communication processes include active listening, constructive feedback, negotiation and conflict resolution.
<b>Workplace information</b>	Information may be presented verbally, in written and screen-based forms. It can also include technical drawings, diagrams and graphs.
<b>Data analysis</b>	Data analysis can include techniques appropriate to work responsibilities such as statistical analysis, troubleshooting and problem solving and planning
<b>Teamwork</b>	Work may require the ability to work within a team environment.
<b>Group processes</b>	Group processes may include formal meeting procedures and informal group processes.

## Unit Sector(s)

Sugar Milling





## FDFTEC3001A Participate in a HACCP team

### Modification History

Not applicable.

### Unit Descriptor

<b>Unit descriptor</b>	This unit of competency covers the skills and knowledge required to participate in the development and/or review of a HACCP-based food safety program under direction.
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### Application of the Unit

<b>Application of the unit</b>	<p>This unit is appropriate where the operator requires a detailed understanding of the steps and techniques used to develop and review a HACCP-based food safety program.</p> <p>This unit can be aligned at either AQF 3 or 4. When aligned at AQF 3 the person would typically participate in the development of the food safety program as part of a group. The scope of contribution would typically be limited to their immediate work area. When this unit is applied at AQF 4 the person may take a lead role in facilitating the development of the food safety program and would apply an understanding of food safety across more diverse operations or work areas.</p> <p>This unit is based on and achieves part of the guideline food safety unit GFSDFSPA Develop food safety programs.</p>
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### Licensing/Regulatory Information

Not applicable.

## Pre-Requisites

Prerequisite units		
	FDFFS2001A	Implement the food safety program and procedures

## Employability Skills Information

Employability skills	This unit contains employability skills.
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## Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.	Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.
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## Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Prepare to develop and/or review a food safety program	1.1.Roles and responsibilities for participating in, developing or reviewing a food safety program are identified 1.2.The scope of the food safety program is identified
2. Identify and/or review food safety hazards	2.1.Processes to be covered by the food safety program are identified and steps within each process are described 2.2.Food safety hazards that are reasonably expected to occur are identified for each process 2.3.Handling methods, processing techniques and existing support programs used in the workplace are identified
3. Establish and/or	3.1.Acceptable methods of control are established for

ELEMENT	PERFORMANCE CRITERIA
review methods to monitor and control food safety hazards	<p>each food safety hazard that is reasonably expected to occur</p> <p>3.2. Control methods are validated</p> <p>3.3. Procedures for taking preventative action are established</p> <p>3.4. Appropriate methods for monitoring that processes remain within control are established</p> <p>3.5. Required corrective action to respond to situations where hazards are not effectively controlled is established</p> <p>3.6. Work is conducted in accordance with workplace environmental guidelines</p>

## Required Skills and Knowledge

### REQUIRED SKILLS AND KNOWLEDGE

This section describes the skills and knowledge required for this unit.

#### Required skills

##### *Ability to:*

- identify personal roles and responsibilities for participating in the development or review of a food safety program
- identify processes and steps to be covered
- identify hazards that are reasonably expected to occur and establish appropriate methods of control, such as participating in validating existing control methods and where there is no adequate control method in place, establishing an appropriate method
- establish or review procedures for implementing preventative action, such as revision of materials, processes and/or food handling procedures, and where required, the revision of workplace practices and documentation, such as specifications, operating procedures and approved supplier programs
- describe the appropriate monitoring requirements for each food safety hazard, including the method or procedure to be followed, the frequency and timing, the person responsible, and the information to be recorded (procedures to be followed would typically be specified in the form of a standard operating procedure or work instruction)
- describe corrective action requirements in the event that acceptable limits or

## REQUIRED SKILLS AND KNOWLEDGE

- requirements of support programs are not met
- develop or review documentation relating to the design and maintenance of the food safety program, such as flow diagrams, hazard analysis charts and tables, support program requirements, data analysis reports, corrective action reports and verification reports
- develop or review documentation to communicate food safety responsibilities, such as standard operating procedures (SOPs), processing parameters and recording devices (e.g. log sheets)
- communicate food safety responsibilities within level of responsibility using techniques and presentation styles appropriate to the audience
- use oral communication skills/language competence to fulfil the job role as specified by the organisation, including questioning, active listening, asking for clarification and seeking advice from supervisor
- work cooperatively within a culturally diverse workforce

### Required knowledge

#### *Knowledge of:*

- the purpose and intent of food safety legislation
- purpose and responsibilities for maintaining records as required by legislation and workplace procedures
- roles and responsibilities for development and maintenance of the food safety program, including roles of internal and external auditors and of authorised officers
- techniques for applying HACCP-based principles, including techniques for identifying hazards, assessing the likelihood of occurrence, determining acceptable methods of control, monitoring and recording requirements for each control point, identifying corrective action if controls are not met, and developing system review procedures
- techniques used to map operations and analyse food safety requirements, such as preparation of flow charts, hazard analysis charts and tables, and data analysis reports
- raw materials, ingredient and finished product composition and characteristics, and related handling and storage requirements
- food processing methods used in the workplace or work area and their effect on food safety
- sources of technical expertise on food safety requirements
- the role of consultation in the development, implementation and ongoing maintenance of the food safety program
- documentation and recording requirements to support communication and monitoring of the food safety program, including procedures for maintaining and updating relevant documents, such as operating procedures
- main types of food safety hazards/contamination likely to occur given the type of

**REQUIRED SKILLS AND KNOWLEDGE**

- product and processing methods used
- conditions required for bacterial food poisoning to occur, such as water activity, pH, composition, time and temperature as relevant to food handled
- acceptable control methods for the hazards identified and required corrective action when control requirements are not met
- typical support programs, such as cleaning schedules, pest control, stock rotation, product traceability and personal hygiene, and how they can be used as part of a food safety program
- acceptable control methods for the hazards identified and required corrective action when control requirements are not met
- validation and verification processes and techniques and responsibilities

**Evidence Guide****EVIDENCE GUIDE**

The Evidence Guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.

**Overview of assessment**

Assessment must be carried out in a manner that recognises the cultural and literacy requirements of the assessee and is appropriate to the work performed. Competence in this unit must be achieved in accordance with food safety standards and regulations.

**Critical aspects for assessment and evidence required to demonstrate competency in this unit**

Evidence of ability to:

- identify components and parameters of a food safety program
- identify food safety hazards in production processes
- establish and validate control standards and methods for each hazard
- establish procedures for unpredicted hazards
- communicate and document hazards and control procedures
- complete workplace records
- apply safe work practices and identify occupational health and safety (OHS) hazards and controls
- apply food safety procedures.

**Context of and specific resources for**

Assessment must occur in a real or simulated workplace

<b>EVIDENCE GUIDE</b>	
<b>assessment</b>	<p>where the assessee has access to:</p> <ul style="list-style-type: none"> <li>• workplace food safety program documentation</li> <li>• advice on quality and food safety legislation</li> <li>• procedures for developing or modifying specifications and other advice on food safety requirements</li> <li>• procedures for developing or modifying documentation, such as work instructions and procedures, log sheets and other recording requirements</li> <li>• review/audit arrangements</li> <li>• consultative mechanisms</li> <li>• communication systems</li> <li>• training system</li> <li>• reporting/recording system.</li> </ul>
<b>Method of assessment</b>	This unit should be assessed together with core units and other units of competency relevant to the function or work role.
<b>Guidance information for assessment</b>	To ensure consistency in one's performance, competency should be demonstrated on more than one occasion over a period of time in order to cover a variety of circumstances, cases and responsibilities, and where possible, over a number of assessment activities.

## Range Statement

<b>RANGE STATEMENT</b>	
<p>The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.</p>	
<b>Food safety programs</b>	<p>A food safety program is a written document that specifies how a business will control all food safety hazards that are reasonably expected to occur in the food business. The food safety program must provide for the systematic</p>

<b>RANGE STATEMENT</b>	
	monitoring of the controls as well as appropriate corrective action if a hazard is found not to be under control. Records must be kept to demonstrate action in relation to, or in compliance with, the food safety program. A food safety program may be developed as a stand-alone program or may be integrated with the quality program in a workplace
<b>Methods used to control hazards</b>	<p>Methods used to control hazards include:</p> <ul style="list-style-type: none"> <li>• both support programs and specific hazard control limits or requirements</li> </ul> <p>Typical examples of support programs include:</p> <ul style="list-style-type: none"> <li>• product recall</li> <li>• cleaning schedules</li> <li>• pest control programs</li> <li>• personal hygiene practices</li> <li>• calibration procedures and related operating procedures</li> </ul>
<b>Food safety hazards</b>	<p>Food safety hazards include:</p> <ul style="list-style-type: none"> <li>• microbiological</li> <li>• chemical</li> <li>• physical hazards</li> </ul>
<b>Validation</b>	<p>Validation refers to:</p> <ul style="list-style-type: none"> <li>• the use of objective evidence in order to prove that materials, processes, procedures or equipment used are capable of delivering the intended result</li> </ul>
<b>Verification</b>	<p>Verification refers to:</p> <ul style="list-style-type: none"> <li>• reviewing all aspects of the food safety program and related records to determine compliance with and adequacy of the food safety program</li> </ul> <p>At a minimum, food safety programs must be verified annually</p>
<b>Scope of the HACCP based plans</b>	The scope of the HACCP-based plan depends on workplace requirements and may extend outside the direct area of responsibility of the team participants



**Unit Sector(s)**

<b>Unit sector</b>	Technical
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**Competency field**

<b>Competency field</b>	
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**Co-requisite units**

<b>Co-requisite units</b>		

## FDFTEC3002A Implement the pest prevention program

### Modification History

Not applicable.

### Unit Descriptor

<b>Unit descriptor</b>	This unit of competency covers the skills and knowledge required to implement an existing pest management program.
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### Application of the Unit

<b>Application of the unit</b>	<p>This unit has application in a food production environment. It typically targets the worker responsible for inspecting food products and implementing control procedures.</p> <p>In some states and territories, activities including purchasing and application of some pesticides are covered by licensing arrangements. Where this applies, the appropriate licence is a prerequisite for undertaking this unit.</p> <p>When applied to the pharmaceutical industry, relevant Good Manufacturing Practice (GMP) codes apply in place of the Food Standards Code and reference to food safety is replaced by GMP.</p>
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### Licensing/Regulatory Information

Not applicable.

### Pre-Requisites

<b>Prerequisite units</b>	
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<b>Prerequisite units</b>		

## Employability Skills Information

<b>Employability skills</b>	This unit contains employability skills.
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## Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.	Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.
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## Elements and Performance Criteria

<b>ELEMENT</b>	<b>PERFORMANCE CRITERIA</b>
1. Monitor the implementation of pest prevention measures	1.1. Inspections are conducted to monitor the effectiveness of pest prevention measures 1.2. Signs of pest infestation are identified, analysed and reported 1.3. Hygiene standards are maintained to meet company requirements
2. Implement pest elimination procedures	2.1. Control measures suited to infestation are selected 2.2. Procedures for the elimination of pests are implemented 2.3. Records are maintained 2.4. Waste is collected, treated and disposed of according to company procedures 2.5. Work is conducted in accordance with workplace environmental guidelines

ELEMENT	PERFORMANCE CRITERIA
3. Review pest control programs	<p>3.1. Pest infestation is monitored to confirm effectiveness of treatment method</p> <p>3.2. The treatment program is modified within level of responsibility</p> <p>3.3. Changes to the treatment program are reported to the appropriate personnel</p>

## Required Skills and Knowledge

### REQUIRED SKILLS AND KNOWLEDGE

This section describes the skills and knowledge required for this unit.

#### Required skills

##### *Ability to:*

- recognise indicators of pest invasion
- select appropriate control method according to the control program in place
- select, fit and use personal protective clothing and/or equipment
- follow pest elimination procedures, such as preparing pesticides for use, applying pesticides according to company procedures and licensing arrangements, setting up and operating equipment, such as fumigation and other pesticide application equipment, and preparing and placing baits as required
- follow procedures to measure and monitor pest populations, such as sampling, testing and recording data
- review effectiveness of control methods and amend or recommend changes to program as required
- safely dispose of pesticides, residues, empty containers and pests
- monitor the implementation of housekeeping and cleaning standards
- conduct tests according to enterprise procedures, such as using instrumentation to measure the presence of airborne pesticides
- carry out basic maintenance required to support pest prevention measures according to enterprise procedures
- liaise with external contractors according to enterprise procedures
- use oral communication skills/language competence to fulfil the job role as specified by the organisation, including questioning, active listening, asking for clarification and seeking advice from supervisor
- work cooperatively within a culturally diverse workforce

#### Required knowledge

## REQUIRED SKILLS AND KNOWLEDGE

### *Knowledge of:*

- basic principles of integrated pest management (IPM), including identification of pest hazards, establishment of pest elimination methods and monitoring the effectiveness of these measures
- methods used to prevent pest invasion suited to workplace and typical pest invasion, including appropriate work area and storage design features to minimise the possibility of pest infestation through building access points, packaging materials/requirements to protect product from pests and other physical and mechanical control measures
- housekeeping and cleaning standards to minimise conditions which attract pests
- food safety issues relating to the use of pesticides in a food handling area
- characteristics and behaviour of each type of pest at each life cycle stage
- conditions required by pests for survival
- methods and procedures used to minimise pest resistance to elimination methods
- range of pesticides used in the workplace
- legislation, codes of practice and procedures relating to the purchase, transport, storage, use and disposal of pesticides
- safe procedures for handling, using and storing pesticides and dangerous goods, identifying identification of information provided on labels, and where required, handling of gas cylinders
- purpose, application and limitations of protective clothing and equipment
- test methods where relevant
- basic maintenance procedures where relevant
- contractor service arrangements where relevant

## Evidence Guide

### EVIDENCE GUIDE

The Evidence Guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.

#### Overview of assessment

Assessment must be carried out in a manner that recognises the cultural and literacy requirements of the assessee and is appropriate to the work performed. Competence in this unit must be achieved in accordance with food safety standards and regulations.

#### Critical aspects for assessment and evidence required to demonstrate

- Evidence of ability to:
- conduct pest inspections

<b>EVIDENCE GUIDE</b>	
<b>competency in this unit</b>	<ul style="list-style-type: none"> <li>• identify pest infestations and select suitable control measures</li> <li>• implement pest control measures in accordance with procedure</li> <li>• monitor effectiveness of controls</li> <li>• assess control procedures and contribute to improvement of pest control</li> <li>• complete workplace records as required</li> <li>• apply safe work practices and identify OHS hazards and controls</li> <li>• apply food safety procedures</li> </ul>
<b>Context of and specific resources for assessment</b>	<p>Assessment must occur in a real or simulated workplace where the assessee has access to:</p> <ul style="list-style-type: none"> <li>• work procedures, including advice on safe work practices, food safety and environmental requirements</li> <li>• pesticide labels</li> <li>• MSDS and personal protective clothing and equipment</li> <li>• pest management program and procedures</li> <li>• pest management compounds and equipment</li> <li>• housekeeping procedures and cleaning schedules in the work area, such as storage, production and/or packaging areas</li> <li>• documentation and record keeping system.</li> </ul>
<b>Method of assessment</b>	<p>This unit should be assessed together with core units and other units of competency relevant to the function or work role. Examples could be:</p> <ul style="list-style-type: none"> <li>• FDFOP2011A Conduct routine maintenance</li> <li>• FDFOP2013A Apply sampling procedures</li> <li>• MSL973001A Perform basic tests.</li> </ul>
<b>Guidance information for assessment</b>	<p>To ensure consistency in one's performance, competency should be demonstrated on more than one occasion over a period of time in order to cover a variety of circumstances, cases and responsibilities, and where possible, over a number of assessment activities.</p>

## Range Statement

### RANGE STATEMENT

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.

<b>Policies and procedures</b>	Work is carried out in accordance with company procedures, regulatory and licensing requirements, legislative requirements and industrial awards and agreements
<b>Workplace information</b>	<p>Workplace information may include:</p> <ul style="list-style-type: none"> <li>• pest management program</li> <li>• pesticide labels</li> <li>• work instructions</li> <li>• standard operating procedures (SOPs)</li> <li>• specifications</li> <li>• materials safety data sheets (MSDS)</li> <li>• manufacturers' advice</li> <li>• standard forms and reports</li> </ul>
<b>Hazardous substances</b>	<p>Work may involve:</p> <ul style="list-style-type: none"> <li>• exposure to chemicals and other hazardous substances and may require working in accordance with a permit to work</li> </ul>
<b>Pests</b>	<p>Pests include:</p> <ul style="list-style-type: none"> <li>• vertebrates, such as birds, rats and mice</li> <li>• invertebrates, such as insects</li> </ul>
<b>Pest control methods</b>	<p>Pest control methods may include:</p> <ul style="list-style-type: none"> <li>• fumigation</li> <li>• application of insecticides, dusts, gas and/or baits (using registered controlled and generally available substances)</li> </ul> <p>Where use of pesticides include work conditions covered by National Occupational Health and Safety Commission and/or state and territory health and safety authorities, the assessment criteria and methods prescribed by these</p>

<b>RANGE STATEMENT</b>	
	authorities must also be met
<b>Selection of control measures</b>	Selection of control measures occurs in the context of an existing program
<b>Application equipment</b>	Application equipment may include: <ul style="list-style-type: none"> <li>• automated reticulation systems</li> <li>• sprayers</li> <li>• misters and dosing equipment</li> </ul>
<b>Tests</b>	Tests may include: <ul style="list-style-type: none"> <li>• testing the level of fumigant in the atmosphere and pressure testing</li> </ul>
<b>Records</b>	Records are maintained to meet legal and company requirements

## Unit Sector(s)

<b>Unit sector</b>	Technical
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## Competency field

<b>Competency field</b>	
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## Co-requisite units

<b>Co-requisite units</b>		



## **FDFTEC3003A Apply raw materials, ingredient and process knowledge to production problems**

### **Modification History**

Not applicable.

### **Unit Descriptor**

<b>Unit descriptor</b>	This unit of competency covers skills and knowledge required to apply knowledge of ingredients and processes to troubleshoot typical problems that occur in preparing, processing and/or packaging product.
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### **Application of the Unit**

<b>Application of the unit</b>	This unit applies where problem solving occurs over one or more processes and requires an understanding of the characteristics of raw materials and ingredients and processing methods used. It typically applies to the production operator where responsibility for solving problems relating to non-conforming raw materials, ingredients and processes.
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### **Licensing/Regulatory Information**

Not applicable.

### **Pre-Requisites**

<b>Prerequisite units</b>		

## Employability Skills Information

<b>Employability skills</b>	This unit contains employability skills.
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## Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.	Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.
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## Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Identify and respond to non-conforming ingredients/raw materials	<p>1.1. Non-conformance in raw materials/ingredients is identified and reported according to workplace reporting requirements</p> <p>1.2. Causes of non-conformance are investigated and reported according to workplace reporting requirements</p> <p>1.3. Corrective action is determined and implemented within level of responsibility and workplace procedures</p> <p>1.4. Action is taken to prevent recurrence of non-conformance</p> <p>1.5. Action is reported according to workplace reporting requirements</p>
2. Identify and respond to non-conforming product and processes	<p>2.1. Processing parameters, stages and changes which occur during processing are monitored</p> <p>2.2. Non-conformance in processing, handling and/or storage is identified and corrective action taken according to workplace requirements</p> <p>2.3. Causes of non-conformance relating to processing, handling and/or storage are investigated and reported according to workplace reporting requirements</p> <p>2.4. Corrective action is determined and implemented within level of responsibility and workplace procedures</p>

ELEMENT	PERFORMANCE CRITERIA
	<p>2.5. Action is taken to prevent recurrence of non-conformance</p> <p>2.6. Action is reported according to workplace reporting requirements</p> <p>2.7. Work is conducted in accordance with workplace environmental guidelines</p>

## Required Skills and Knowledge

### REQUIRED SKILLS AND KNOWLEDGE

This section describes the skills and knowledge required for this unit.

#### Required skills

##### *Ability to:*

- identify requirements of ingredient/raw material characteristics within level of responsibility
- follow procedures to identify, remove/isolate and report non-conforming ingredients/materials and/or product according to workplace reporting requirements
- determine likely causes of non-conformance of ingredients/raw materials
- recognise indicators of unacceptable or non-conforming processing, handling and/or storage outcomes
- act promptly to identify, remove/isolate and report non-conforming product and/or processes
- access and apply workplace information relating to process troubleshooting
- investigate non-conformance to determine likely causes and report findings to appropriate personnel
- identify action required to correct non-conformance and implement within level of responsibility
- identify action required to prevent or minimise and control recurrence of non-conformance and implement within level of responsibility
- complete workplace records, including reporting non-conformance and documenting corrective actions according to workplace recording procedures
- conduct tests to confirm raw material/ingredient and/or final product quality characteristics according to enterprise procedures
- use oral communication skills/language competence to fulfil the job role as specified by the organisation, including questioning, active listening, asking for clarification and seeking advice from supervisor
- work cooperatively within a culturally diverse workforce

## REQUIRED SKILLS AND KNOWLEDGE

### Required knowledge

#### *Knowledge of:*

- basic composition and function of each main raw material/ingredient used, such as awareness of ingredient grades or types
- common causes of contamination/unacceptable quality of raw materials/ingredients
- methods used to confirm quality standard, such as accessing information (e.g. certificates of analysis and/or laboratory clearance information)
- the effect of variation in raw materials/ingredients on processing stages and final product outcome, including factors likely to cause variation, and scope to adjust or correct for variation at each processing stage
- appropriate handling and storage requirements for raw materials/ingredients and final product, and the effect of failing to meet required storage conditions
- the changes and reactions that occur through processing stages, including the signs and symptoms of poor/unacceptable processing or equipment operation
- factors that affect the shelf-life of product
- the inter-relationships between processing stages and the effect of variation in processing parameters on process outcome and on final product, including factors likely to cause variation, and scope to adjust or correct for variation at subsequent process stages
- procedures for identifying and isolating non-conforming product
- troubleshooting information and techniques
- procedures and related documentation required to amend or introduce a new method or procedure, such as short term procedures for amending or updating specifications and processing parameters
- reporting requirements and responsibilities
- test methods to confirm raw material/ingredient and/or final product quality characteristics where relevant

## Evidence Guide

### EVIDENCE GUIDE

The Evidence Guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.

#### Overview of assessment

Assessment must be carried out in a manner that recognises the cultural and literacy requirements of the assessee and is appropriate to the work performed.

<b>EVIDENCE GUIDE</b>	
	Competence in this unit must be achieved in accordance with food safety standards and regulations.
<b>Critical aspects for assessment and evidence required to demonstrate competency in this unit</b>	<p>Evidence of ability to:</p> <ul style="list-style-type: none"> <li>• describe required quality characteristics for raw materials and ingredients</li> <li>• describe required processes to achieve production specifications</li> <li>• identify common non-conforming materials and ingredients and causes</li> <li>• identify common non-conforming processes and causes</li> <li>• determine and undertake corrective action for non-conformances</li> <li>• complete workplace documentation and report non-conformances</li> <li>• apply food safety procedures.</li> </ul>
<b>Context of and specific resources for assessment</b>	<p>Assessment must occur in a real or simulated workplace where the assessee has access to:</p> <ul style="list-style-type: none"> <li>• ingredient/raw materials specifications and related advice, such as certificates of analysis</li> <li>• ingredients/raw materials and final product and related processing equipment and stores areas</li> <li>• troubleshooting information relevant to workplace processes</li> <li>• sampling and test equipment and procedures as required</li> <li>• system for managing and updating workplace documents, such as Standard Operating Procedures (SOPs) and log sheets/processing parameters</li> <li>• reporting and recording system and procedures.</li> </ul>
<b>Method of assessment</b>	<p>This unit should be assessed together with core units and other units of competency relevant to the function or work role. Examples could be:</p> <ul style="list-style-type: none"> <li>• FDFOP2013A Apply sampling procedures</li> <li>• FDFPPL3002A Report on workplace performance</li> <li>• MSL973001A Perform basic tests</li> <li>• PMBQUAL390A Solve problems using quality tools.</li> </ul>
<b>Guidance information for assessment</b>	<p>To ensure consistency in one's performance, competency should be demonstrated on more than one occasion over a period of time in order to cover a variety of</p>

## EVIDENCE GUIDE

circumstances, cases and responsibilities, and where possible, over a number of assessment activities.

## Range Statement

### RANGE STATEMENT

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.

#### Policies and procedures

Work is carried out according to company procedures, regulatory and licensing requirements, legislative requirements, and industrial awards and agreements.

#### Legislative requirements

Legislative requirements are typically reflected in procedures and specifications. Legislation relevant to this industry includes:

- the Food Standards Code, including labelling, weights and measures legislation
- legislation covering food safety, environmental management, occupational health and safety (OHS), anti-discrimination and equal opportunity

When applied to the pharmaceutical industry, relevant Good Manufacturing Practice (GMP) codes apply in place of the Food Standards Code and reference to food safety is replaced by GMP

#### Ingredients/raw materials

Ingredients/raw materials are those used to manufacture product

#### Typical processing and related techniques

Typical processing and related techniques include but are not limited to:

- raw materials/ingredient dispensing
- preparation
- mixing and blending
- conditioning

<b>RANGE STATEMENT</b>	
	<ul style="list-style-type: none"> <li>• primary and further processing</li> <li>• wrapping</li> <li>• packing and storage</li> </ul>
<b>Typical process parameters</b>	<p>Typical process parameters include but are not limited to:</p> <ul style="list-style-type: none"> <li>• temperature</li> <li>• time</li> <li>• pressure</li> <li>• flow rate</li> </ul>
<b>Typical reactions</b>	<p>Typical reactions depend on processing method. Examples include but are not limited to:</p> <ul style="list-style-type: none"> <li>• gelatinisation and hydration</li> </ul>
<b>Problem minimisation</b>	<p>Where recurrence of a problem cannot be prevented, procedures should be established to minimise the likelihood of recurrence and to identify any further incidents</p>

## Unit Sector(s)

<b>Unit sector</b>	Technical
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## Competency field

<b>Competency field</b>	
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## Co-requisite units

<b>Co-requisite units</b>	





## FDFTEC4001A Determine handling processes for perishable food items

### Modification History

Not applicable.

### Unit Descriptor

<b>Unit descriptor</b>	This unit of competency covers the knowledge required to determine process and equipment requirements for the handling and storage of perishable food items.
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### Application of the Unit

<b>Application of the unit</b>	<p>This unit covers management of handling, packing and storage processes used for perishable food items, such as fresh fruit and vegetables. It includes analysing current best practice processes and equipment and determining workplace practice.</p> <p>The unit includes an understanding of the principles of modified atmosphere packing processes.</p> <p>This unit is not designed to meet the competency requirements of the person responsible for determining packaging specifications, nor does it cover food packaging and labelling legislation. Where this is a requirement, refer to FDFTEC4006A Apply an understanding of legal requirements in food production.</p>
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### Licensing/Regulatory Information

Not applicable.

### Pre-Requisites

<b>Prerequisite units</b>	
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<b>Prerequisite units</b>		

## Employability Skills Information

<b>Employability skills</b>	This unit contains employability skills.
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## Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.	Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.
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## Elements and Performance Criteria

<b>ELEMENT</b>	<b>PERFORMANCE CRITERIA</b>
1. Identify packing, handling and storage requirements for perishable food product	<p>1.1.Requirements and performance measures for packing, handling and storage of perishable food product are identified</p> <p>1.2.Current best practice for packing, handling and storage of perishable food product are identified and workplace practices assessed for performance</p> <p>1.3.Features and operational processes of equipment used to handle, pack and store perishable food product are identified</p> <p>1.4.Customer and legal requirements of packing, handling and storing perishable food product are identified</p> <p>1.5.Packing materials used are confirmed as suitable for perishable food product</p>
2. Specify packing,	2.1.Equipment and facilities available for packing,

ELEMENT	PERFORMANCE CRITERIA
handling and storage processes	<p>handling and storage of perishable food product are identified and cost-benefit analysis conducted to assess potential value to workplace operations</p> <p>2.2. Equipment and facilities are specified for work operations</p> <p>2.3. Processes for packing, handling and storing perishable food product are specified</p> <p>2.4. Processes specified are in accordance with workplace environmental guidelines</p> <p>2.5. Labelling and documentation requirements are specified</p> <p>2.6. Workplace processes and operating procedures are documented and communicated to personnel</p>
3. Manage problems with perishable food product	<p>3.1. Common problems with perishable product are identified and likely causes determined</p> <p>3.2. Equipment and procedures are assessed to identify contributing factors to food problems</p> <p>3.3. Problems are identified and addressed in accordance with workplace procedure</p> <p>3.4. Out-of-specification processes or outcomes are documented</p> <p>3.5. Opportunities for improvement are identified and investigated within level of technical responsibility</p> <p>3.6. Proposals for improvement are developed and implemented within level of authority and according to company procedures</p>

## Required Skills and Knowledge

### REQUIRED SKILLS AND KNOWLEDGE

This section describes the skills and knowledge required for this unit.

#### Required skills

##### *Ability to:*

- identify packing, handling and storage requirements for perishable product
- identify the quality assurance systems in place to ensure that the product meets customer and legal requirements
- identify factors that affect shelf-life of the perishable product and the features of

## REQUIRED SKILLS AND KNOWLEDGE

- packing design that preserve the product
- identify problems that occur and investigate likely causes
- determine appropriate corrective action to prevent non-conformance
- identify packing materials suitable for use with perishable food products
- identify legal requirements relating to perishable product, including Food Standards Code requirements and other legislation relevant to the product
- identify pathogens and spoilage that can occur in perishable food and the conditions required for these to occur
- identify features intrinsic to the food type, according to food type, such as pH, water activity, nutrient content, presence of microbiological compounds, respiration rate and biological structure
- identify extrinsic factors, such as processing method, temperature, water loss/humidity, maturity (applies to maturity of fruit and vegetables when harvested), handling, cleaning, sanitation and personal hygiene practices and gaseous composition of the storage atmosphere
- identify food spoilage indicators, such as microbial contamination, enzymic browning and sensory degradation of characteristics such as flavour, aroma, colour and texture
- identify factors that influence selection of packing and storage processes, including suitability for use with the food products to be packaged, compatibility with packing technology, cost, environmental features and consumer safety/tamper evidence
- describe the significance of factors, such as moisture and temperature in promoting/preventing product spoilage
- identify typical problems that occur with perishable food product and outline likely causes and appropriate response options within level of responsibility
- identify relevant sources of technical expertise and related authority levels to address issues
- use communication skills to interpret and complete work information to support operations of work team or area
- demonstrate and support cooperative work practices within a culturally diverse workforce

## Required knowledge

### *Knowledge of:*

- properties of packing processes designed to protect perishable product and extend shelf-life
- relevant regulations, codes of practice and legislative requirements, including local and international regulations relevant to the handling and storage of perishable food products
- relevant occupational health and safety (OHS) and environmental protection procedures and regulations
- workplace procedures for the planning and management of the handling and

**REQUIRED SKILLS AND KNOWLEDGE**

- storage of perishable food products
- problems that may occur during the planning and management of the handling and storage of perishable food products and action that can be taken to resolve or report the problems
- risks and hazards related to the handling and storage of perishable food products and ways of controlling the risks involved
- costs of equipment and facilities for handling and storing perishable food product
- pathogens and spoilage that can occur in perishable food and the conditions required for these to occur
- impact of extrinsic factors on perishable food products, such as temperature, water loss/humidity, maturity (applies to maturity of fruit and vegetables when harvested), handling, cleaning, sanitation and personal hygiene practices and gaseous composition of the storage atmosphere
- characteristics of product and its behaviour when packed, handled and stored over the shelf-life of the product
- typical problems that occur, and likely causes and appropriate response options

**Evidence Guide****EVIDENCE GUIDE**

The Evidence Guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.

**Overview of assessment**

Assessment must be carried out in a manner that recognises the cultural and literacy requirements of the assessee and is appropriate to the work performed. Competence in this unit must be achieved in accordance with food safety standards and regulations.

**Critical aspects for assessment and evidence required to demonstrate competency in this unit**

Evidence of ability to:

- analyse packing, handling and storage requirements for perishable food product
- specify processes and equipment to achieve workplace performance and quality outcomes
- analyse and confirm safety aspects of processes and equipment
- analyse non-conformances, problems and determine probable cause
- propose improvements to the system.

<b>EVIDENCE GUIDE</b>	
<b>Context of and specific resources for assessment</b>	<p>Assessment must occur in a real or simulated workplace where the assessee has access to:</p> <ul style="list-style-type: none"> <li>• packaging specifications</li> <li>• product, packaging components and consumables</li> <li>• packaging process equipment</li> <li>• relevant workplace operating procedures</li> <li>• communication systems</li> <li>• workplace information recording systems, requirements and procedures.</li> </ul>
<b>Method of assessment</b>	This unit should be assessed together with core units and other units of competency relevant to the function or work role.
<b>Guidance information for assessment</b>	To ensure consistency in one's performance, competency should be demonstrated on more than one occasion over a period of time in order to cover a variety of circumstances, cases and responsibilities, and where possible, over a number of assessment activities.

## Range Statement

<b>RANGE STATEMENT</b>	
<p>The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.</p>	
<b>Policies and procedures</b>	<p>Product packaging and related work processes are consistent with company policies and procedures, regulatory and licensing requirements, legislative requirements, and industrial awards and agreements and takes account of OHS and environmental impact</p>

**Unit Sector(s)**

<b>Unit sector</b>	Technical
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**Competency field**

<b>Competency field</b>	
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**Co-requisite units**

<b>Co-requisite units</b>		

## FDFTEC4002A Manage controlled atmosphere storage

### Modification History

Not applicable.

### Unit Descriptor

<b>Unit descriptor</b>	This unit of competency covers the skills and knowledge to determine and maintain conditions required for controlled atmosphere storage of perishable produce.
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### Application of the Unit

<b>Application of the unit</b>	This unit has application in fresh produce storage or processing environments. It would typically be performed by supervisors and senior operators or technicians responsible for ensuring that conditions in controlled atmosphere storage are set and maintained at the correct levels for the required produce.
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### Licensing/Regulatory Information

Not applicable.

### Pre-Requisites

<b>Prerequisite units</b>		



## Employability Skills Information

<b>Employability skills</b>	This unit contains employability skills.
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## Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.	Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.
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## Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Analyse features and parameters of controlled atmosphere storage	1.1.Type of storage facility, components and construction are identified 1.2.All features of the facility are examined and operational processes identified 1.3.Cooling mechanisms and processes are examined 1.4.Implications and parameters of controls are examined and range determined for fresh fruit product 1.5.Consequences of inaccurate controls are identified 1.6.Procedures for opening and closing doors and risks associated with air tight chambers are identified 1.7.Chemicals associated with the storage process are identified 1.8.Occupational health and safety (OHS) risks and control measures relating to safe operation of controlled atmosphere storage are identified 1.9.Storage documentation is confirmed according to workplace requirements
2. Determine operational requirements for storage	2.1.Storage requirements for fresh produce product are identified 2.2.Storage settings and monitoring schedule are established 2.3.Specifications are documented according to

ELEMENT	PERFORMANCE CRITERIA
	workplace practice
3. Set and monitor controlled atmosphere storage	3.1. Operational equipment is checked to ensure readiness 3.2. Settings for controlled atmosphere storage facility are entered according to specifications 3.3. Cooling is conducted at a rate and temperature suitable to produce requirements 3.4. Test equipment is calibrated 3.5. Temperature, air tightness and atmosphere levels are tested daily to ensure accurate levels and details recorded 3.6. Chemicals used in the storage process and associated risks and handling requirements are identified 3.7. Work is conducted in accordance with workplace environmental guidelines 3.8. Non-compliances and variances in temperature and atmosphere are recorded 3.9. Equipment maintenance requirements are identified and documented
4. Complete documentation	4.1. All workplace documentation is completed and files maintained as required 4.2. Quality control documentation is completed

## Required Skills and Knowledge

### REQUIRED SKILLS AND KNOWLEDGE

This section describes the skills and knowledge required for this unit.

#### Required skills

##### *Ability to:*

- access workplace information to determine storage requirements
- identify storage requirements including temperature limits, atmosphere, minimum duration at given temperatures, segregation and co-storage requirements
- select, fit and use personal protective clothing and/or equipment
- conduct testing of atmosphere and temperature
- read instrumentation, such as temperature gauges, digital and non-digital, O<sub>2</sub> and CO<sub>2</sub> test equipment, to monitor stores and zone temperatures
- identify and report out-of-specification temperatures in storage facilities

**REQUIRED SKILLS AND KNOWLEDGE**

- take corrective action in response to out-of-specification temperatures, including implementation of procedures to segregate damaged or potentially unsafe product
- complete records of stock receipt and transfer as required
- maintain work area to meet housekeeping standards
- use communication skills to interpret and complete work information to support operations of work team or area
- demonstrate and support cooperative work practices within a culturally diverse workforce

**Required knowledge*****Knowledge of:***

- OHS hazards and controls, including the purpose and limitations of protective clothing and equipment, conditions for working in confined spaces and modified atmospheres, safe use of handling equipment, use of hazardous chemicals and air tightness
- implications of expansion and contraction of rooms
- temperature controlled storage facilities and features in the work area, including temperatures required for a variety of produce
- acceptable temperature and atmosphere ranges and consequences of failing to meet these ranges, such as requirements for gradual temperature change
- food safety and quality consequences of stock temperature control requirements not being met
- monitoring procedures and instrumentation, including use of thermometers or other measuring and testing instrumentation
- notification, recording and reporting requirements
- operating procedures for goods handling equipment as required
- housekeeping requirements for work area
- recording requirements and procedures

**Evidence Guide****EVIDENCE GUIDE**

The Evidence Guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.

**Overview of assessment**

Assessment must be carried out in a manner that recognises the cultural and literacy requirements of the assessee and is appropriate to the work performed. Competence in this unit must be achieved in accordance

<b>EVIDENCE GUIDE</b>	
	with food safety standards and regulations.
<b>Critical aspects for assessment and evidence required to demonstrate competency in this unit</b>	<p>Evidence of ability to:</p> <ul style="list-style-type: none"> <li>• identify features and control processes for controlled atmosphere storage</li> <li>• determine and enter settings for controlled atmosphere storage according to requirements for fresh produce</li> <li>• conduct tests to monitor temperature, air tightness and atmosphere of storage facility to ensure standards are maintained and act on any inconsistencies</li> <li>• apply OHS control measures</li> <li>• identify and act on non-conformances</li> <li>• complete workplace documentation</li> <li>• apply food safety procedures.</li> </ul>
<b>Context of and specific resources for assessment</b>	<p>Assessment must occur in a real or simulated workplace where the assessee has access to:</p> <ul style="list-style-type: none"> <li>• personal protective clothing and equipment</li> <li>• work procedures, including advice on safe work practices, food safety, quality and environmental requirements</li> <li>• storage specifications</li> <li>• stock handling and rotation systems</li> <li>• controlled atmosphere storage facilities</li> <li>• stock information recording system and procedures.</li> </ul>
<b>Method of assessment</b>	<p>This unit should be assessed together with core units and other units of competency relevant to the function or work role. An example could be:</p> <ul style="list-style-type: none"> <li>• MEM13003B Work safely with industrial chemicals and materials.</li> </ul>
<b>Guidance information for assessment</b>	<p>To ensure consistency in one's performance, competency should be demonstrated on more than one occasion over a period of time in order to cover a variety of circumstances, cases and responsibilities, and where possible, over a number of assessment activities.</p>

## Range Statement

### RANGE STATEMENT

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.

Policies and procedures	Work is carried out according to company policies and procedures, regulatory and licensing requirements, legislative requirements, and industrial awards and agreements
<b>Legislative requirements</b>	<p>Legislative requirements are typically reflected in procedures and specifications. Legislation relevant to this industry includes:</p> <ul style="list-style-type: none"> <li>• relevant commonwealth, state and territory plant health and plant products legislation</li> <li>• legislation associated with the licensing and operation of load shifting equipment</li> <li>• refrigeration regulation</li> <li>• the Food Standards Code, including labelling, weights and measures legislation</li> <li>• legislation covering food safety, environmental management, OHS, anti-discrimination and equal opportunity</li> <li>• work in confined spaces regulations</li> </ul>
<b>Workplace information</b>	<p>Workplace information may include:</p> <ul style="list-style-type: none"> <li>• standard operating procedures (SOPs)</li> <li>• specifications</li> <li>• production schedules and instructions</li> <li>• manufacturers' advice</li> <li>• standard forms and reports</li> </ul>
<b>OHS risks</b>	<p>OHS risks include:</p> <ul style="list-style-type: none"> <li>• temperature</li> <li>• O<sub>2</sub> and CO<sub>2</sub> levels</li> <li>• chemicals</li> <li>• refrigerant</li> <li>• gases</li> <li>• nitrogen</li> </ul>

RANGE STATEMENT	
	<ul style="list-style-type: none"> <li>• spillages</li> </ul>
<b>Equipment</b>	<p>Equipment may include:</p> <ul style="list-style-type: none"> <li>• condensers</li> <li>• evaporative and air coolers</li> <li>• electronic and manual testing equipment</li> <li>• generator</li> <li>• scrubber</li> <li>• nitrogen flushing equipment</li> </ul>

## Unit Sector(s)

<b>Unit sector</b>	Technical
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## Competency field

<b>Competency field</b>	
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## Co-requisite units

<b>Co-requisite units</b>		

## FDFTEC4003A Control food contamination and spoilage

### Modification History

November 2011: updated to include correct prerequisite.

### Unit Descriptor

<b>Unit descriptor</b>	This unit of competency covers the skills and knowledge required to prevent food contamination and spoilage. It includes management of food safety and cleaning and sanitation programs.
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### Application of the Unit

<b>Application of the unit</b>	This unit has application at a level where a person would be expected to oversee control measures across a production site or facility.
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### Licensing/Regulatory Information

Not applicable.

### Pre-Requisites

<b>Prerequisite units</b>		
	FDFFS3001A	Monitor the implementation of quality and food safety programs* <i>FDFFS2001A Implement the food safety program and procedures</i>

## Employability Skills Information

<b>Employability skills</b>	This unit contains employability skills.
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## Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.	Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.
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## Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Identify legal responsibilities to produce quality, safe food	1.1. Legal and ethical responsibilities to produce safe food are identified 1.2. Legal, company and customer quality standards for products are identified
2. Identify common causes of food poisoning and contamination	2.1. Food-borne pathogens and contamination that can occur in processed food are identified 2.2. Patterns of contamination and spoilage are traced through processing, storage and shelf-life for a given product 2.3. Conditions required for contamination to occur are identified 2.4. Laboratory results used to detect the presence of contamination and/or related conditions are analysed and applied
3. Manage control measures to eliminate and/or minimise the risk of contamination	3.1. Control measures related to receivals, handling and processing, storage and/or transport stages to guarantee food safety in the workplace are identified 3.2. Control measures to prevent food contamination and spoilage are documented and followed
4. Manage cleaning and sanitation regimes	4.1. The main types of cleaners and sanitisers used in the food industry are identified 4.2. Application methods and related materials, labour and equipment requirements are identified



ELEMENT	PERFORMANCE CRITERIA
	<p>4.3. Cleaning and sanitation methods and regimes are assessed for environmental impact</p> <p>4.4. Appropriate cleaning and sanitation methods are selected to suit a given product, processing method and risk factors and to ensure minimal impact on the environment</p> <p>4.5. Inspection and/or test methods are in place to confirm the effectiveness of the cleaning and sanitation program</p> <p>4.6. Responsibilities for cleaning and sanitation are documented and communicated</p>

## Required Skills and Knowledge

### REQUIRED SKILLS AND KNOWLEDGE

This section describes the skills and knowledge required for this unit.

#### Required skills

##### *Ability to:*

- identify the requirements of legislative responsibilities relating to food production, including food composition, specification of safe handling, processing, storage and transportation methods as appropriate, and establishment of related programs, such as cleaning and sanitation, personal hygiene practices, training and food traceability and recall procedures
- identify how legislative requirements have been applied in a production context (this will typically be based on the food safety program (HACCP) for a production process)
- identify related roles and responsibilities for implementing, maintaining and reviewing the food safety program in a production environment
- identify the types of pathogenic bacteria, viruses and chemicals that can occur in food, including the main types of pathogens and contamination that can occur for a given product and production method, as well as the specific strains that can occur
- identify the main types and causes of food spoilage that can occur, including:
  - bacterial growth
  - growth of yeasts and moulds
  - fermentation
  - enzymic reactions
  - physical degradation (oxidation)
- identify the conditions that cause or promote the growth of pathogens and other

## REQUIRED SKILLS AND KNOWLEDGE

forms of contamination and food spoilage

- identify typical control measures used to prevent contamination from occurring, including microbiological, chemical and physical types of contamination
- distinguish between measures to control pathogenic growth (critical control measures) and those used to prevent other forms of contamination
- interpret test results and apply this information in a production context
- identify the types of contamination that can occur and the controls in place to prevent or minimise the likelihood of contamination occurring (where a food safety plan has been developed, compare the outcomes of this process with the provisions of the food safety plan)
- review workplace information to ensure that critical control measures and procedures are documented in a form appropriate to meet company and legal requirements and that quality control measures and procedures are documented to meet company and customer requirements (documentation includes action to be followed in the event of an incident or emergency and should be reflected in food safety plans and operating procedures)
- identify the cleaning and sanitation requirements/standards appropriate for a food processing environment
- identify the types of cleaners, sanitisers and combined cleaning/sanitation agents used in the food industry and related application methods
- evaluate the appropriateness of available methods to a given production process/product type
- develop and/or review a cleaning regime suited to a given production process, including the nature, frequency and methods of cleaning and sanitation required, such as removal of residues as appropriate, inspection and/or test methods to confirm effectiveness and allocation of roles and responsibilities (the cleaning regime should balance the need to ensure effective cleaning and sanitation at the same time as minimising the disruption to production)
- identify the possible consequences of failing to follow the cleaning regime
- develop and/or review procedures to describe the methods, frequency, recording, inspection and test requirements related to implementation of cleaning and sanitation
- analyse and interpret test results relating to cleaning and sanitation
- for a given type of microbacterial and/or chemical contamination, identify likely causes, relevant tests and review of the effectiveness of existing controls, including cleaning and sanitation measures
- use communication skills to interpret and complete work information to support operations of work team or area
- demonstrate and support cooperative work practices within a culturally diverse workforce

### Required knowledge

*Knowledge of:*

## REQUIRED SKILLS AND KNOWLEDGE

- the types of pathogenic bacteria, viruses and chemicals that can occur in food
- the main types of pathogens and contamination that can occur
- the main types and causes of food spoilage that can occur, including:
  - bacterial growth
  - growth of yeasts and moulds
  - fermentation
  - enzymic reactions
  - physical degradation (oxidation)
- the conditions that cause or promote the growth of pathogens and other forms of contamination and food spoilage
- criteria for evaluation to take account of the effectiveness of the method in controlling contamination risk, equipment requirements, cost and other criteria as identified by the workplace.
- issues of compatibility of cleaning agents with materials used in equipment/instrument fabrication
- the legal responsibilities to maintain food production facilities in a clean and sanitary condition, the difference between a surface that appears clean and one that is microbiologically described as clean, and use of terms, such as sterile and commercially sterile
- laboratory procedures used to avoid erroneous results, including practices such as use of negative controls and the purpose of false positives/false negatives
- common terms, such as:
  - plate count
  - culture
  - colony
  - bacteriophage
  - spores
  - yeasts and moulds
  - water activity

## Evidence Guide

### EVIDENCE GUIDE

The Evidence Guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.

#### Overview of assessment

Assessment must be carried out in a manner that recognises the cultural and literacy requirements of the

<b>EVIDENCE GUIDE</b>	
	<p>assessee and is appropriate to the work performed. Competence in this unit must be achieved in accordance with food safety standards and regulations.</p>
<b>Critical aspects for assessment and evidence required to demonstrate competency in this unit</b>	<p>Evidence of ability to:</p> <ul style="list-style-type: none"> <li>• identify legal, company and quality standards for food products</li> <li>• identify common causes of contamination and poisoning, and techniques used to verify status</li> <li>• identify and manage control measures used to address risks</li> <li>• manage cleaning procedures to ensure workplace standards meet food safety requirements.</li> </ul>
<b>Context of and specific resources for assessment</b>	<p>Assessment must occur in a real or simulated workplace where the assessee has access to:</p> <ul style="list-style-type: none"> <li>• food safety plan and related information, including operating procedures, cleaning and sanitation regimes/plans</li> <li>• laboratory test results</li> <li>• a given production process and product as the basis for tracing contamination/spoilage and identifying control measures</li> <li>• cleaning and sanitation methods, equipment and procedures .</li> </ul>
<b>Method of assessment</b>	<p>This unit should be assessed together with core units and other units of competency relevant to the function or work role.</p>
<b>Guidance information for assessment</b>	<p>To ensure consistency in one's performance, competency should be demonstrated on more than one occasion over a period of time in order to cover a variety of circumstances, cases and responsibilities, and where possible, over a number of assessment activities.</p>

## Range Statement

<b>RANGE STATEMENT</b>
<p>The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating</p>

<b>RANGE STATEMENT</b>	
conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.	
<b>Food-borne pathogens and contamination</b>	<p>Food-borne pathogens and contamination includes:</p> <ul style="list-style-type: none"> <li>those listed in the World Health Organisation(WHO) table on 'Food-borne pathogens and chemicals of public health importance'.</li> </ul> <p>This is reproduced in a number of food safety-related documents, including 'Food Safety Standards Costs and Benefits' ANZFA, May 1999</p>
<b>Food-related legislation</b>	<p>Food-related legislation relevant to this unit includes:</p> <ul style="list-style-type: none"> <li>relevant state, territory and federal food safety legislation</li> <li>the Food Standards Code</li> </ul>
<b>Identification</b>	<p>Identification can be based on active ingredients and includes but is not limited to:</p> <ul style="list-style-type: none"> <li>alkaline and acid-based detergents</li> <li>steam/hot water-based methods of sanitation</li> <li>bleach-based sanitisers</li> <li>quaternary ammonium compounds (QUATs)</li> <li>alcohol-based sanitisers</li> <li>use of UV light, gamma radiation and combined cleaners/sanitisers</li> </ul>

## Unit Sector(s)

<b>Unit sector</b>	Technical
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## Competency field

<b>Competency field</b>	
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**Co-requisite units**

Co-requisite units		

# FDFTEC4004A Apply basic process engineering principles to food processing

## Modification History

September 2012: clarified pre-requisite information.

## Unit Descriptor

<b>Unit descriptor</b>	This unit of competency provides an introduction to process engineering concepts. It covers the skills and knowledge required to map production processes, measure outputs (yields, material variances) and apply an understanding of the basic principles of systems and equipment commonly used in the food processing industry.
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## Application of the Unit

<b>Application of the unit</b>	Application of this unit includes systems and equipment used for heat transfer, refrigeration, pumping and evaporation/drying.
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## Licensing/Regulatory Information

Not applicable.

## Pre-Requisites

<b>Prerequisite units</b>		
	FDFOP2030A	Operate a process control interface
	FDFTEC4007A	Describe and analyse data using mathematical principles* <i>FDFOP2015A Apply principles of statistical process control*</i>

<b>Prerequisite units</b>	
	<i>FDFOP2061A Use numerical applications in the workplace</i>

## Employability Skills Information

<b>Employability skills</b>	This unit contains employability skills.
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## Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.	Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.
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## Elements and Performance Criteria

<b>ELEMENT</b>	<b>PERFORMANCE CRITERIA</b>
1. Map a production process	1.1. The scope of a production process to be mapped is identified 1.2. Appropriate process mapping symbols are selected and used 1.3. A map is developed that identifies the relationship of each step in the process
2. Calculate yields and efficiencies of a production process	2.1. Inputs to and outputs of a production processing system are identified 2.2. Information required to monitor performance of a production process is collected 2.3. Calculate yields, efficiencies and material variances
3. Apply principles of fluid flow to a production process	3.1. Fluid properties that affect flow are identified 3.2. Components and related equipment used in the pumping system are identified 3.3. Features of the system design that affect performance of the pumping system are identified



ELEMENT	PERFORMANCE CRITERIA
	<p>3.4. The effect of pumping on the fluid properties is identified</p> <p>3.5. The operating capacity of pumping systems used in the production process is established</p> <p>3.6. Procedures for the safe use of pumping equipment are reviewed and/or established</p>
4. Apply principles of heat transfer to a production process	<p>4.1. Types of heat transfer are identified</p> <p>4.2. Methods and related equipment used to transfer heat are identified</p> <p>4.3. Types of heat transfer media are identified</p> <p>4.4. Operating principles of cooling, chilling and freezing processes are identified</p> <p>4.5. The effect of heat transfer on product/material properties is identified</p> <p>4.6. The operating capacity of heat transfer equipment used in the production process is established</p> <p>4.7. Procedures for the safe use of heat transfer equipment are reviewed and/or established</p>
5. Apply principles of evaporation to a production process	<p>5.1. Methods and related equipment used for evaporation are identified</p> <p>5.2. The effect of evaporation on product/material properties is identified</p> <p>5.3. Tests used to determine the concentration of a liquid are identified</p> <p>5.4. The operating capacity of evaporation equipment used in the production process is established</p> <p>5.5. Procedures for the safe use of evaporation equipment are reviewed and/or established</p>
6. Apply principles of drying to a production process	<p>6.1. Methods and related equipment used for drying are identified</p> <p>6.2. The effect of drying on product/material properties is identified</p> <p>6.3. Tests used to determine moisture content of materials and/or product are identified</p> <p>6.4. The operating capacity of drying equipment used in the production process is established</p> <p>6.5. Procedures for the safe use of drying equipment are reviewed and/or established</p>
7. Apply principles of process control to management of	<p>7.1. Sensors and instrumentation providing input information to the control system are located</p>

ELEMENT	PERFORMANCE CRITERIA
production processes	7.2. Consequences of a system malfunction are identified

## Required Skills and Knowledge

### REQUIRED SKILLS AND KNOWLEDGE

This section describes the skills and knowledge required for this unit.

#### Required skills

##### *Ability to:*

- establish and apply process mapping protocols and symbols used in the workplace to describe a production process
- identify the inputs to a production process and the outputs of a production process
- identify the data required to calculate yields, efficiencies and material variances
- locate sources of information in the workplace, such as printing reports from information management systems
- calculate yields, efficiencies and material variances using software or application of a formula
- identify properties of fluids that affect fluid flow, including viscosity, temperature and size, and distribution of particulates
- identify types of pumping equipment appropriate for different types of liquids
- identify tests or measures taken to monitor operation of pumps and related performance information
- apply information to describe pump system capacity in a production process
- identify features in the pumping system design that affects pumping efficiencies, including length of pipework, number and placement of valves and fittings, height of inlet and discharge points, internal surface and diameter of the pipe
- identify possible effects of pumping on liquid properties
- identify operational and safety features of pumps used in a production process, including inspections required to identify signs of faulty performance and/or wear
- review and/or establish procedures to define safe pump operation and maintenance
- identify heat transfer methods and types of equipment commonly used in the food industry, such as:
  - retorts
  - jacketed vessels/kettles
  - heat exchangers, including plate, tubular and scraped surface
  - cooling tunnels
  - refrigeration circuits
  - chillers

## REQUIRED SKILLS AND KNOWLEDGE

- freezers
- identify typical applications in the food industry and the heat transfer medium used for each heat transfer method
- identify the effects of heat transfer on properties of materials/products, including possible consequences where the heat transfer process is not operated within specified parameters
- distinguish between conduction, convection and radiation in the application of heat
- identify the properties of heat and steam, including an understanding of the terms latent heat, saturated and supersaturated steam
- identify the heat transfer requirements and equipment used in a production process, including mapping the stages and equipment used in a heat transfer process and holding stages
- identify tests or measures taken to monitor performance of heat transfer equipment and related expression of performance information
- apply information to describe heat transfer process capacity in a production process
- identify operational and safety features of heat transfer equipment used in a production process, including inspections required to identify signs of faulty performance and/or wear
- review and/or establish procedures to define safe operation and maintenance of heat transfer processes and equipment used in a production process
- identify the effects of evaporation on product, such as:
  - physical property changes such as crystallisation, increased solids/viscosity
  - intensification of flavour and concentration of acids
  - changes in microbiological characteristics due to application of heat and reduction of moisture/water activity
- identify the equipment components of an evaporation process, such as:
  - heat transfer surface (rising film, falling film, forced circulation and plate)
  - vapour separator
  - vapour condenser
  - vacuum unit
- map the stages and equipment used in an evaporation process
- identify tests or measures taken to monitor performance of an evaporation process and related expression of performance information
- apply information to describe evaporation process capacity in a production process
- identify tests carried out to determine material/product solids and related terms (common test methods include baume, refractive index and brix)
- identify the processing parameters, time required to achieve the target result and steam required
- identify operational and safety features of evaporation equipment used in a production process, including inspections required to identify signs of faulty performance and/or wear
- review and/or establish procedures to define safe operation and maintenance of

## REQUIRED SKILLS AND KNOWLEDGE

- evaporation processes and equipment used in a production process
- identify the effects of drying on product, such as:
  - changes that occur at each stage of the drying process
  - reduction in weight and bulk
  - changes in microbiological characteristics due to application of heat and reduction of moisture/water activity
- identify the equipment components of a drying process, such as:
  - hot air drying (fluidised bed driers, spray driers, belt trough driers, and air lift driers)
  - freeze drying (vacuum)
- map the stages and equipment used in a drying process
- identify tests or measures taken to monitor performance of a drying process and related expression of performance information
- describe drying process
- identify tests carried out to determine process outcomes on material/product
- identify the processing parameters, time and energy required to achieve the target result
- identify operational and safety features of drying equipment used in a production process, including inspections required to identify signs of faulty performance and/or wear
- review and/or establish procedures to define safe operation and maintenance of drying processes and equipment used in a production process
- identify the main types of sensors used in food processing to provide input data to control systems and how these sensors operate
- identify the location and operation of sensors and related data input devices to a control system on equipment used in a production process
- for a given production process, identify the criticality of system control and consequences of a system malfunction or power outage
- develop and/or review procedures to be followed in the event of a system malfunction or power outage
- use communication skills to interpret and complete work information to support operations of work team or area
- demonstrate and support cooperative work practices within a culturally diverse workforce

### Required knowledge

#### *Knowledge of:*

- the basic operating features and components of pumps commonly used and typical applications, such as:
  - rotodynamic (centrifugal) pumps
  - positive displacement pumps, including reciprocating piston pumps, rotary

**REQUIRED SKILLS AND KNOWLEDGE**

- pumps (including gear and lobe pumps), screw pumps, eccentric rotor pumps (including progressive cavity or mono pumps) and flexible vane pumps
- related components of the pumping system, including valves, taps and pipework, and where required, Australian standards and workplace protocols for indicating materials carried by pipework
  - features in the pumping system design that affects pumping efficiencies, including length of pipework, number and placement of valves and fittings, height of inlet and discharge points, internal surface and diameter of the pipe
  - the following terms:
    - pressure and pressure drop
    - velocity
    - head
  - typical applications in the food industry and the heat transfer medium used
  - equipment components of a drying process
  - heat transfer requirements and equipment used in a production process
  - tests carried out to determine process outcomes on material/product
  - operational and safety features of drying equipment
  - inspections required to identify signs of faulty performance and/or wear
  - main types of sensors used in food processing to provide input data to control systems and how these sensors operate

**Evidence Guide****EVIDENCE GUIDE**

The Evidence Guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.

**Overview of assessment**

Assessment must be carried out in a manner that recognises the cultural and literacy requirements of the assessee and is appropriate to the work performed. Competence in this unit must be achieved in accordance with food safety standards and regulations.

**Critical aspects for assessment and evidence required to demonstrate competency in this unit**

Evidence of ability to:

- map a production process
- apply engineering principles to a food production context
- perform required calculations.

<b>EVIDENCE GUIDE</b>	
<b>Context of and specific resources for assessment</b>	<p>Assessment must occur in a real or simulated workplace where the assessee has access to:</p> <ul style="list-style-type: none"> <li>• production process and related equipment, manufacturers' advice and operating procedures</li> <li>• methods and related software systems as required for collecting data and calculating yields, efficiencies and material variances appropriate to production environment</li> <li>• tests used to report relevant product/process information and recorded results.</li> </ul>
<b>Method of assessment</b>	This unit should be assessed together with core units and other units of competency relevant to the function or work role.
<b>Guidance information for assessment</b>	To ensure consistency in one's performance, competency should be demonstrated on more than one occasion over a period of time in order to cover a variety of circumstances, cases and responsibilities, and where possible, over a number of assessment activities.

## Range Statement

<b>RANGE STATEMENT</b>	
<p>The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.</p>	
<b>Policies and procedures</b>	Uses of processing equipment and related work processes are consistent with company policies and procedures, regulatory and licensing requirements, legislative requirements, and industrial awards and agreements and takes account of occupational health and safety (OHS) and environmental impact
<b>Calculation</b>	Calculation of yields, efficiencies and material variances may involve:

**RANGE STATEMENT**

	<ul style="list-style-type: none"> <li>• use of software programs and systems, such as SAP</li> <li>• application of a relevant formula</li> </ul>
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**Unit Sector(s)**

<b>Unit sector</b>	Technical
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**Competency field**

<b>Competency field</b>	
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**Co-requisite units**

<b>Co-requisite units</b>		

## FDFTEC4005A Apply an understanding of food additives

### Modification History

Not applicable.

### Unit Descriptor

<b>Unit descriptor</b>	This unit of competency covers the skills and knowledge required to recognise the characteristics and functions of food additives, preservatives, colours and flavours used in food products.
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### Application of the Unit

<b>Application of the unit</b>	This unit is designed to provide an overview of food additives. It is not designed to meet the competency requirements of the person who specifies additives, preservatives, colours or flavours to be used in food. Analysis of the properties of food additives may also be done by a specialist.
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### Licensing/Regulatory Information

Not applicable.

### Pre-Requisites

<b>Prerequisite units</b>		



## Employability Skills Information

<b>Employability skills</b>	This unit contains employability skills.
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## Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.	Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.
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## Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Identify additives used in food	1.1.Types of food additives and common additives used in food products are identified 1.2.Functions of food additives are identified 1.3.Legal requirements relating to use of food additives are identified 1.4.Legal and quality consequences of incorrect additive addition are identified
2. Manage use of additives in a production process	2.1.Additives used in product range produced in the production process are identified 2.2.Methods of addition are suited to food additive and production requirements 2.3.Procedures for safe handling and addition of food additives are reviewed and/or established 2.4.Handling, use and disposal of additives is conducted in accordance with environmental standards

## Required Skills and Knowledge

### REQUIRED SKILLS AND KNOWLEDGE

This section describes the skills and knowledge required for this unit.

## REQUIRED SKILLS AND KNOWLEDGE

### Required skills

#### *Ability to:*

- identify common food additives and group them by function
- identify common types of additives used in the food industry
- identify the functions of food additives commonly used in food, such as:
  - texture modifying agents
  - organoleptic and nutritional modifying agents, including flavours, colours, flavour enhancers, sugar-free sweeteners, minerals, vitamins and food acids
  - shelf-life enhancing agents, including preservatives, anti-oxidants and food acids
  - technological aids, including humectants, enzymes, propellants, flour treatment, caking agents and bleaching agents
- identify additives, colours and flavours used in product range produced in the workplace, including:
  - coding system used to describe food additives, colours and flavours
  - legal requirements relating to additives used as established by the Food Standards Code
  - function in the food product
  - typical quantities used and related units of measurement
  - preparation requirements, and forming and breaking emulsions, and preparation of solutions where required
  - addition systems and related equipment requirements
  - health and safety issues related to handling of additives
  - process recording requirements
  - consequences of incorrect additive addition, including the Food Standards Code as it relates to food additives used in a given product range
- review and/or establish procedures to describe storage, handling and processing conditions that affect the characteristics of colours and flavours, such as:
  - changes in pH
  - temperature change
  - exposure to light
  - exposure to humidity
  - packaging materials
- review and/or establish procedures to describe the method of preparation and addition of additives to food products produced in the workplace
- provide examples of incorrect addition of food additives that could occur in the production process, determine appropriate corrective action within company policy and level of authority
- use communication skills to interpret and complete work information to support

**REQUIRED SKILLS AND KNOWLEDGE**

- operations of work team or area
- demonstrate and support cooperative work practices within a culturally diverse workforce

**Required knowledge*****Knowledge of:***

- types of food additives and common additives used in food products
- the functions of food additives commonly used in food
- coding system used to describe food additives, colours and flavours
- legal requirements relating to additives used as established by the Food Standards Code
- typical quantities used and related units of measurement
- preparation requirements, such as forming and breaking emulsions, and preparation of solutions
- addition systems and related equipment requirements
- occupational health and safety (OHS) issues related to handling of additives
- consequences of incorrect additive addition, including Food Standards Code as it relates to food additives used in a given product range
- the quality and food safety hazards of incorrect addition
- handling and processing conditions that affect the characteristics of colours and flavours

**Evidence Guide****EVIDENCE GUIDE**

The Evidence Guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.

**Overview of assessment**

Assessment must be carried out in a manner that recognises the cultural and literacy requirements of the assessee and is appropriate to the work performed. Competence in this unit must be achieved in accordance with food safety standards and regulations.

**Critical aspects for assessment and evidence required to demonstrate competency in this unit**

Evidence of ability to:

- identify legal, company and quality standards for food additives
- identify main additives and groupings
- describe the function and user requirements for

<b>EVIDENCE GUIDE</b>	
	additives <ul style="list-style-type: none"> <li>manage the use of additives to ensure product quality standards are achieved.</li> </ul>
<b>Context of and specific resources for assessment</b>	Assessment must occur in a real or simulated workplace where the assessee has access to: <ul style="list-style-type: none"> <li>product specifications, including advice on additives</li> <li>food standards code</li> <li>product range and related production processes</li> <li>workplace information recording systems, requirements and procedures.</li> </ul>
<b>Method of assessment</b>	This unit should be assessed together with core units and other units of competency relevant to the function or work role.
<b>Guidance information for assessment</b>	To ensure consistency in one's performance, competency should be demonstrated on more than one occasion over a period of time in order to cover a variety of circumstances, cases and responsibilities, and where possible, over a number of assessment activities.

## Range Statement

<b>RANGE STATEMENT</b>	
<p>The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.</p>	
<b>Policies and procedures</b>	Handling of food additives, preservatives, colours and flavours and related work processes are consistent with company policies and procedures, regulatory and licensing requirements, legislative requirements, and industrial awards and agreements and takes account of OHS and environmental impact
<b>Groupings</b>	Groupings include but are not limited to: <ul style="list-style-type: none"> <li>preservatives</li> </ul>

**RANGE STATEMENT**

	<ul style="list-style-type: none"> <li>• anti-oxidants</li> <li>• acidulants</li> <li>• organoleptic and nutritional modification agents</li> <li>• colours and flavours, including synthetic and natural, oil and water soluble and lakes (dispersion in oil - applying to colours only)</li> <li>• technological aids</li> </ul>
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**Unit Sector(s)**

<b>Unit sector</b>	Technical
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**Competency field**

<b>Competency field</b>	
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**Co-requisite units**

<b>Co-requisite units</b>		

## FDFTEC4006A Apply an understanding of legal requirements of food production

### Modification History

Not applicable.

### Unit Descriptor

<b>Unit descriptor</b>	This unit of competency covers the skills and knowledge required to ensure that food production operations comply with legal requirements.
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### Application of the Unit

<b>Application of the unit</b>	<p>The intent of this unit is to introduce the range of legal requirements applying to food processing activities and facilities. It does not include requirements related to environmental management, occupational health and safety (OHS) and food safety. These areas are covered by other units.</p> <p>The person who undertakes this unit may not be directly responsible for designing premises, equipment or procedures to comply with legislation but should be aware of the existence of legislation, its intent and the arrangements in place to ensure compliance.</p>
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### Licensing/Regulatory Information

Not applicable.

### Pre-Requisites

<b>Prerequisite units</b>		

<b>Prerequisite units</b>		

## Employability Skills Information

<b>Employability skills</b>	This unit contains employability skills.
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## Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.	Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.
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## Elements and Performance Criteria

<b>ELEMENT</b>	<b>PERFORMANCE CRITERIA</b>
1. Manage production systems to meet legislative requirements relating to product and processing	<p>1.1. Relevant legislation and regulations that apply to food production, packaging and labelling are identified</p> <p>1.2. The purpose and intent of relevant legislation is identified</p> <p>1.3. The roles and responsibilities of authorities responsible for administering legislation are identified</p> <p>1.4. Procedures to support compliance with legal requirements are established and/or reviewed</p>
2. Manage production facilities to meet legislative requirements relating to food premises, equipment design and storage facilities	<p>2.1. Identify relevant legislation and regulations that apply to food premises, storage facilities and equipment are identified</p> <p>2.2. Identify the purpose and intent of relevant legislation are identified</p> <p>2.3. Identify the roles and responsibilities of authorities responsible for administering legislation are</p>

ELEMENT	PERFORMANCE CRITERIA
	<p>identified</p> <p>2.4.Procedures to support compliance with legal requirements are established and/or reviewed</p>

## Required Skills and Knowledge

### REQUIRED SKILLS AND KNOWLEDGE

This section describes the skills and knowledge required for this unit.

#### Required skills

##### *Ability to:*

- identify the legal responsibilities of a food processing company, including responsibilities relating to:
  - product content (Food Standards Code)
  - product packaging and labelling, including use of nutritional information panels (Food Standards Code)
  - design requirements of food premises and equipment
  - requirements of storage facilities used for materials, ingredients and final product
  - other requirements as appropriate to the product and/or market (e.g. import and/or export legislation)
- identify and/or develop specifications and procedures to ensure that legal responsibilities related to product content and packaging are achieved
- inspect plant design to identify potential hazards that could be introduced as a result of equipment design and configuration, such as overhead pipes or equipment where dust could collect and fall into food
- where hazards are identified, apply the hierarchy of control to identify opportunities to remove or control the risk
- identify storage facilities across a production site
- identify the dangerous goods stored on site and confirm that storage of these goods (type and quantity) meets legal requirements
- confirm that employees required to handle chemicals and dangerous goods are advised of the associated risks, that this information is available in a form appropriate to the audience and that material safety data sheets are available
- develop and/or review recording systems to confirm compliance with legislative requirements and ensure that employees responsible for recording information are informed of these responsibilities
- establish internal review/audit procedures to confirm that legislative responsibilities are met



**REQUIRED SKILLS AND KNOWLEDGE**

- identify the relevant authority responsible for administering the legislation
- identify the rights and responsibilities of related officers to access the production site
- use communication skills to interpret and complete work information to support operations of work team or area
- demonstrate and support cooperative work practices within a culturally diverse workforce

**Required knowledge*****Knowledge of:***

- legal responsibilities of a food processing company relating to product content and packaging
- the purpose and intent of relevant legislation
- potential hazards that could be introduced as a result of equipment design and configuration
- associated risks in handling chemicals and dangerous goods
- recording requirements to comply with legislative requirements
- relevant authorities responsible for administering legislation and their roles

**Evidence Guide****EVIDENCE GUIDE**

The Evidence Guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.

**Overview of assessment**

Assessment must be carried out in a manner that recognises the cultural and literacy requirements of the assessee and is appropriate to the work performed. Competence in this unit must be achieved in accordance with food safety standards and regulations.

**Critical aspects for assessment and evidence required to demonstrate competency in this unit**

Evidence of ability to:

- identify legal requirements for the packing, production and labelling operations of a food production enterprise
- assess systems, roles and procedures in place
- identify legal requirements for facilities and equipment and assess compliance
- establish and/or review procedures to support

<b>EVIDENCE GUIDE</b>	
	compliance with legal requirements.
<b>Context of and specific resources for assessment</b>	<p>Assessment must occur in a real or simulated workplace where the assessee has access to:</p> <ul style="list-style-type: none"> <li>• workplace processes and procedures</li> <li>• workplace documentation, including specifications and procedures</li> <li>• relevant legislation</li> <li>• communication systems</li> <li>• workplace information recording systems, requirements and procedures.</li> </ul>
<b>Method of assessment</b>	<p>This unit should be assessed together with core units and other units of competency relevant to the function or work role. An example could be:</p> <ul style="list-style-type: none"> <li>• FDFPPL4008A Manage internal audits.</li> </ul>
<b>Guidance information for assessment</b>	<p>To ensure consistency in one's performance, competency should be demonstrated on more than one occasion over a period of time in order to cover a variety of circumstances, cases and responsibilities, and where possible, over a number of assessment activities.</p>

## Range Statement

<b>RANGE STATEMENT</b>	
<p>The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.</p>	
<b>Legislation</b>	<p>Legislation to be covered by this unit includes:</p> <ul style="list-style-type: none"> <li>• Food Standards Code</li> <li>• Australian standards</li> <li>• food safety legislation (including provisions covering the design of food premises and equipment)</li> <li>• customs and excise legislation (for alcohol-based ingredients/materials)</li> </ul>

<b>RANGE STATEMENT</b>	
	<ul style="list-style-type: none"> <li>• dangerous goods legislation</li> <li>• import and export legislation</li> <li>• additional legislation as appropriate to product, process and market</li> <li>• environmental protection legislation</li> </ul>

## Unit Sector(s)

<b>Unit sector</b>	Technical
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## Competency field

<b>Competency field</b>	
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## Co-requisite units

<b>Co-requisite units</b>		

## FDFTEC4007A Describe and analyse data using mathematical principles

### Modification History

November 2011: updated to include correct prerequisite.

### Unit Descriptor

<b>Unit descriptor</b>	This unit of competency covers the skills and knowledge required to apply mathematical principles to interpret data relating to properties and production of food products.
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### Application of the Unit

<b>Application of the unit</b>	This unit builds on an understanding of common units of measurement, formulae and mathematical skills related to production activities.
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### Licensing/Regulatory Information

Not applicable.

### Pre-Requisites

<b>Prerequisite units</b>		
	FDFOP2015A	Apply principles of statistical process control* <i>FDFOP2061A Use numerical applications in the workplace</i>

## Employability Skills Information

<b>Employability skills</b>	This unit contains employability skills.
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## Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.	Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.
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## Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Identify common units of measurement and dimensions used to describe physical properties of materials and food	1.1. SI units of measurement and related unit symbols are identified 1.2. Common formulae used to measure characteristics of food are identified and applied 1.3. Calculations involving fractions and ratios are performed
2. Apply linear algebra to analyse workplace information	2.1. Given two known values, an unknown value is calculated 2.2. The principles of transposing values are applied to solve workplace problems
3. Use graphs to analyse workplace information	3.1. Data analysis and presentation requirements are identified 3.2. Graphs are generated to analyse and display workplace information 3.3. A process control chart is constructed

## Required Skills and Knowledge

<b>REQUIRED SKILLS AND KNOWLEDGE</b>
This section describes the skills and knowledge required for this unit.

## REQUIRED SKILLS AND KNOWLEDGE

### Required skills

#### *Ability to:*

- identify the fundamental units (SI) of measurement (metres, kilograms and seconds)
- identify common derived units/measurements, related formulae and their application in a food processing context, such as:
  - density, specific gravity
  - viscosity
  - temperature
  - volume, weight and mass
  - velocity
  - other measures as appropriate to a production process
- apply relevant formulae to measure physical characteristics of food products and/or processes
- select production calculation requirements, such as the adjustment of a recipe formulation, to:
  - select required formulae
  - express the problem as an equation
  - identify the known and unknown values
  - manipulate equations by transposing values as required
  - convert units into compatible formats (i.e. SI units, multiples and sub-multiples)
  - calculate of percentages and ratios
  - conduct the calculation to obtain a solution
  - record the result in the appropriate units and level of detail
- identify graphs commonly used in the workplace and relevance to displaying workplace information
- construct charts to analyse and illustrate workplace information, such as use of relevant software
- calculate standard deviation for a given data set
- apply an understanding of standard deviation to determine capability of a process
- identify the target (mean value) for the process
- identify upper and lower control limits to provide for 98% of units to fall within the limits
- use communication skills to interpret and complete work information to support operations of work team or area
- demonstrate and support cooperative work practices within a culturally diverse workforce

**REQUIRED SKILLS AND KNOWLEDGE****Required knowledge*****Knowledge of:***

- SI units of measurement and related unit symbols
- common formulae used to measure characteristics of food
- principles of transposing values to solve workplace problems
- relevant formulae to measure physical characteristics of food products and/or processes
- processes for developing charts and graphs
- calculations to determine unknown values, percentages and ratios, standard deviation, conversion of units into compatible formats, target (mean value) for the process, upper and lower control limits

**Evidence Guide****EVIDENCE GUIDE**

The Evidence Guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.

**Overview of assessment**

Assessment must be carried out in a manner that recognises the cultural and literacy requirements of the assessee and is appropriate to the work performed. Competence in this unit must be achieved in accordance with food safety standards and regulations.

**Critical aspects for assessment and evidence required to demonstrate competency in this unit**

Evidence of ability to:

- identify SI units of measurement
- identify common derived units/measurements, related formulae and their application in a food processing context
- apply relevant formulae to measure physical characteristics of food products and/or processes
- calculate standard deviation
- construct charts
- identify mean value
- identify upper and lower control limits.

**Context of and specific resources for assessment**

Assessment must occur in a real or simulated workplace where the assessee has access to:

<b>EVIDENCE GUIDE</b>	
	<ul style="list-style-type: none"> <li>• workplace processes and procedures</li> <li>• workplace documentation, including conversion charts, sampling plan and control chart formats, related data collection methods, such as log sheets, and relevant formulae to be applied to a production process.</li> </ul>
<b>Method of assessment</b>	<p>This unit should be assessed together with core units and other units of competency relevant to the function or work role. An example could be:</p> <ul style="list-style-type: none"> <li>• FDFPPL4005A Establish process capability.</li> </ul>
<b>Guidance information for assessment</b>	<p>To ensure consistency in one's performance, competency should be demonstrated on more than one occasion over a period of time in order to cover a variety of circumstances, cases and responsibilities, and where possible, over a number of assessment activities.</p>

## Range Statement

<b>RANGE STATEMENT</b>	
<p>The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.</p>	
<b>Common measurements</b>	<p>Common measurements include but are not limited to:</p> <ul style="list-style-type: none"> <li>• density</li> <li>• specific gravity</li> <li>• volume</li> <li>• weight</li> <li>• mass</li> <li>• speed</li> </ul>
<b>Graphs</b>	<p>Graphs include but are not limited to:</p> <ul style="list-style-type: none"> <li>• statistical process control (SPC) charts</li> <li>• x-y charts</li> </ul>



**Unit Sector(s)**

Unit sector	Technical
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**Competency field**

Competency field	
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**Co-requisite units**

Co-requisite units		

## FDFTEC4008A Apply principles of food packaging

### Modification History

Not applicable.

### Unit Descriptor

<b>Unit descriptor</b>	This unit of competency covers the skills and knowledge required to oversee packaging operations and assess the nature and likely causes of packaging problems.
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### Application of the Unit

<b>Application of the unit</b>	<p>This unit covers a range of packaging technologies and is appropriate for a senior operator or manager responsible for overseeing packaging processes. The unit includes a basic understanding of the principles of modified atmosphere packaging processes.</p> <p>This unit is not designed to meet the competency requirements of the person responsible for determining packaging specifications, nor does it cover food packaging and labelling legislation. Where this is a requirement, refer to FDFTEC4006A Apply an understanding of legal requirements of food production.</p>
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### Licensing/Regulatory Information

Not applicable.

### Pre-Requisites

<b>Prerequisite units</b>		

## Employability Skills Information

<b>Employability skills</b>	This unit contains employability skills.
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## Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.	Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.
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## Elements and Performance Criteria

<b>ELEMENT</b>	<b>PERFORMANCE CRITERIA</b>
1. Identify characteristics of packaging suitable for use with food products	1.1. Packaging materials suitable for food application are identified 1.2. Packaging interactions with food products are identified 1.3. Environmental impact and handling features of packaging materials are identified 1.4. Customer and legal requirements of packaging are identified 1.5. Packaging material characteristics meet the needs of the food to be packaged
2. Apply packaging knowledge in a production environment	2.1. Properties of packaging materials used in a packaging process are identified 2.2. Costs of packaging materials are identified 2.3. Procedures for safe operation of the packaging process are established and/or reviewed 2.4. Out-of-specification packaging outcomes are analysed to identify probable cause 2.5. Opportunities for improvement to materials, processes or environmental impacts are identified and investigated within level of technical responsibility

ELEMENT	PERFORMANCE CRITERIA
	2.6. Proposals for improvement are developed and implemented within level of authority and according to company procedures

## Required Skills and Knowledge

### REQUIRED SKILLS AND KNOWLEDGE

This section describes the skills and knowledge required for this unit.

#### Required skills

##### *Ability to:*

- identify properties of packaging materials as specified in packaging specifications for product handled
- identify the quality assurance systems in place to ensure that the packaged product meets customer and legal requirements
- identify factors that affect shelf-life of the packaged product and the features of packaging design that preserve the product
- identify problems that occur in the packaging process and investigate likely causes
- determine appropriate corrective action to prevent packaging non-conformance
- identify packaging materials suitable for use with food products, including plastics, paper-based materials, glass and metal-based materials
- describe the purpose of packaging and the properties of packaging materials designed to protect product and extend shelf-life, including the role of packaging to provide:
  - protection of product from contamination (microbial, pest infestation, and physical damage)
  - barriers (atmospheric, moisture, flavour and light)
  - package sealability and seal integrity
  - easy-to-open access to the product
  - information to the consumer about the product
  - market appeal
- identify legal requirements relating to packaged product, including Food Standards Code requirements and other legislation relevant to the product
- identify pathogens and spoilage that can occur in packaged food and the conditions required for these to occur
- identify features intrinsic to the food type, according to food type, such as pH, water activity, nutrient content, presence of microbiological compounds, respiration rate (fresh fruit and vegetables) and biological structure
- identify extrinsic factors, such as processing method, temperature, water

## REQUIRED SKILLS AND KNOWLEDGE

- loss/humidity, maturity (applies to maturity of fruit and vegetables when harvested), handling, cleaning, sanitation and personal hygiene practices and gaseous composition of the storage atmosphere
- identify food spoilage indicators, including microbial contamination, enzymic browning and sensory degradation of characteristics, such as flavour, aroma, colour and texture
  - describe the features of packaging material requirements of products handled in the workplace, including coated packaging products, and active/interactive packaging films
  - identify factors that influence selection of packaging materials, including market appeal, suitability for use with the food product/s to be packaged, compatibility with packaging technology, cost, environmental features, consumer safety/tamper evidence
  - identify packaging methods and technologies designed to extend shelf-life, including active packaging materials, vacuum packing, gas flushing or sparging and modified atmosphere packaging (MAP)
  - describe the significance of factors, such as moisture and temperature in promoting/preventing product spoilage
  - identify typical problems that occur in the packaging process, and outline likely causes and appropriate response options within level of responsibility (where MAP is used, this includes pack collapse and may include fogging - relevant to fresh fruit and vegetables)
  - identify relevant sources of technical expertise and related authority levels to address packaging issues
  - for MAP packaging processes, describe the effect of gas composition on the packaged product according to enterprise procedures, including the role of the most commonly used gases in food packaging including carbon dioxide, oxygen and nitrogen and the reaction between gases, the packaged product and the packaging material
  - use communication skills to interpret and complete work information to support operations of work team or area
  - demonstrate and support cooperative work practices within a culturally diverse workforce

## Required knowledge

### *Knowledge of:*

- properties of packaging materials designed to protect product and extend shelf-life
- packaging interactions with food products
- costs of packaging materials
- legal requirements relating to packaged product, including Food Standards Code requirements and other legislation relevant to the product
- features of packaging design that preserve the product
- pathogens and spoilage that can occur in packaged food and the conditions required

**REQUIRED SKILLS AND KNOWLEDGE**

for these to occur

- impact of extrinsic factors on food products, such as processing method, temperature, water loss/humidity, maturity (applies to maturity of fruit and vegetables when harvested), handling, cleaning, sanitation and personal hygiene practices and gaseous composition of the storage atmosphere
- characteristics of product and its behaviour when packaged over the shelf-life of the product
- factors that influence selection of packaging materials
- typical problems that occur in the packaging process, and likely causes and appropriate response options
- the characteristics of product handled and its behaviour when packaged over the shelf-life of the product, for example, reactions that occur when canning some types of vegetables requiring appropriately coated cans, respiration that is ongoing after fresh fruit and vegetables are packaged requiring gas permeable packaging materials, and the effect of high moisture and high fat content products on the packaging process where MAP packaging processes are used

**Evidence Guide****EVIDENCE GUIDE**

The Evidence Guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.

**Overview of assessment**

Assessment must be carried out in a manner that recognises the cultural and literacy requirements of the assessee and is appropriate to the work performed. Competence in this unit must be achieved in accordance with food safety standards and regulations.

**Critical aspects for assessment and evidence required to demonstrate competency in this unit**

Evidence of ability to:

- analyse packaging system components, including materials used and interaction with product, costs, processes, legal and customer requirements and environmental and handling implications
- analyse and confirm safety aspects of processes and equipment
- analyse non-conformances and packaging problems and determine probable cause
- propose improvements to the packaging system.

**Context of and specific resources for**

Assessment must occur in a real or simulated workplace

<b>EVIDENCE GUIDE</b>	
<b>assessment</b>	<p>where the assessee has access to:</p> <ul style="list-style-type: none"> <li>• packaging specifications</li> <li>• product, packaging components and consumables</li> <li>• packaging process equipment</li> <li>• relevant standard operating procedures (SOPs)</li> <li>• communication systems</li> <li>• workplace information recording systems, requirements and procedures.</li> </ul>
<b>Method of assessment</b>	This unit should be assessed together with core units and other units of competency relevant to the function or work role.
<b>Guidance information for assessment</b>	To ensure consistency in one's performance, competency should be demonstrated on more than one occasion over a period of time in order to cover a variety of circumstances, cases and responsibilities, and where possible, over a number of assessment activities.

## Range Statement

<b>RANGE STATEMENT</b>	
<p>The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.</p>	
<b>Policies and procedures</b>	Product packaging and related work processes are consistent with company policies and procedures, regulatory and licensing requirements, legislative requirements, and industrial awards and agreements and takes account of occupational health and safety (OHS) and environmental impact
<b>Packaging processes and technologies</b>	<p>Packaging processes and technologies include:</p> <ul style="list-style-type: none"> <li>• active packaging materials</li> <li>• vacuum packing</li> <li>• gas flushing or sparging</li> </ul>

RANGE STATEMENT	
	<ul style="list-style-type: none"> <li>MAP</li> </ul>
<b>Out-of-specification results</b>	Follow-up action in response to out-of-specification results occurs in consultation with the relevant quality/technical expert responsible for packaging specifications

## Unit Sector(s)

<b>Unit sector</b>	Technical
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## Competency field

<b>Competency field</b>	
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## Co-requisite units

<b>Co-requisite units</b>		



## **FDFTEC4009A Identify the physical and chemical properties of materials, food and related products**

### **Modification History**

Not applicable.

### **Unit Descriptor**

<b>Unit descriptor</b>	This unit covers the skills and knowledge required to identify the physical and chemical properties of materials, food and related products. It requires application of this knowledge to a production environment.
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### **Application of the Unit**

<b>Application of the unit</b>	This unit has application in the food processing industry where knowledge of physical and chemical properties of materials, food and related products is used to inform work in product development, production, testing, communication and problem solving.
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### **Licensing/Regulatory Information**

Not applicable.

### **Pre-Requisites**

<b>Prerequisite units</b>		

## Employability Skills Information

<b>Employability skills</b>	This unit contains employability skills.
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## Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.	Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.
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## Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Apply understanding of common physical phenomena in the food industry	<p>1.1. An understanding of common physical phenomena is applied to explain relevant changes that occur to ingredients and product through the production process</p> <p>1.2. Information on the changes that occur is communicated to others in appropriate formats</p>
2. Apply an understanding of the physical states of matter	<p>2.1. The three states of matter and the atomic changes that occur at each phase are identified</p> <p>2.2. The behaviour of each type of matter and its relationship to the production process is described</p> <p>2.3. The relationship between pressure and temperature in phase transition is identified</p>
3. Apply an understanding of common food science principles to a production process	<p>3.1. The significance of pH for processing, food safety and cleaning applications is identified</p> <p>3.2. The reactions and properties of carbohydrates, proteins and fats can be tracked through a given process</p> <p>3.3. The properties of common emulsions, suspensions and solutions can be described</p> <p>3.4. Common chemical reactions that occur, factors required to cause a reaction and the effect of reactions can be identified</p> <p>3.5. Safe work procedures for processes requiring</p>

ELEMENT	PERFORMANCE CRITERIA
	handling of chemicals and/or involving chemical reactions are reviewed and/or established
4. Communicate and interpret technical information	<p>4.1. Appropriate technical terms are used to communicate information on properties of food and materials commonly used in the food industry</p> <p>4.2. Test results and reporting formats to communicate information on composition, properties and reactions are interpreted and applied</p>

## Required Skills and Knowledge

### REQUIRED SKILLS AND KNOWLEDGE

This section describes the skills and knowledge required for this unit.

#### Required skills

##### *Ability to:*

- identify physical characteristics or phenomena that occur through processing, including the following common physical phenomena, and any additional phenomena appropriate to the production process:
  - shear and strain
  - friction
  - surface tension
  - pressure
  - crystallisation
  - total solids
  - heat and temperature
  - relative humidity
  - work/energy input
  - viscosity
  - particle size
  - melting points, boiling points, freezing points
  - dew/condensation point
  - other phenomena as appropriate to product/process
- identify products and processes where these phenomena can be observed
- based on phenomena that can be observed in a production process, develop explanatory sketches or flow charts to communicate how these phenomena affect product and process

## REQUIRED SKILLS AND KNOWLEDGE

- identify tests commonly used to measure these phenomena and related units of measurement
- identify molecular changes that occur in states of matter, and apply this to an understanding of common applications, such as refrigerant or freeze drying
- for transition phases that apply in a given production process, identify the role of temperature and pressure in the transition process
- identify the difference between acids and bases
- classify commonly used materials, ingredients and indicators according to pH
- identify the difference between a strong acid and a concentrated acid and related units of measurement used to describe these acids
- identify typical strengths and concentration levels required for acids and bases commonly used in a production process (e.g. cleaning agents)
- for cleaning agents, identify compatibility with equipment surface materials
- identify the significance of pH for processing, food safety and cleaning applications
- identify the basic molecular structures of carbohydrates, proteins and fats
- identify the processing stages designed to affect the structure of these compounds (e.g. hydrogenation or denaturing proteins in cooking processes of oil)
- distinguish the difference between solutions, suspensions and colloidal systems. Colloidal systems include:
  - emulsions (oil in water/water in oil)
  - sols (solid-liquid/solid-solid)
  - gels
  - foams (gas-liquid/gas-solid)
- identify typical applications of solutions, suspensions and colloidal systems in food processing
- distinguish between dispersed particles and the dispersion medium in colloids
- identify factors that affect stability of colloidal systems, including the stages in a production process that can cause a change in the structure of a colloid
- identify common chemical reactions that occur in food processing, including both spontaneous and controlled reactions (reactions to be covered include oxidation, enzymic, Maillard and acid-based reactions, and other reactions relevant to a given product type and production process)
- identify the role of enzymes in generating biological reactions (e.g. amylase in bread)
- identify safety hazards and control methods required when handling chemicals and working with processes that involve chemical reactions
- review and/or develop workplace procedures to include advice on hazards and related instructions on control methods, including advice on action required in the event of an incident such as a chemical spill or an emergency
- read and interpret technical information to describe food properties and/or reactions, including recognition and application of appropriate units of

## REQUIRED SKILLS AND KNOWLEDGE

measurement and terms

- use communication skills to interpret and complete work information to support operations of work team or area
- demonstrate and support cooperative work practices within a culturally diverse workforce

## Required knowledge

*knowledge of:*

- physical characteristics or phenomena that occur through processing and products and processes where these phenomena can be observed
- tests commonly used to measure these phenomena and related units of measurement
- molecular changes that occur in states of matter
- transition phases that apply in a given production process
- role of temperature and pressure in the transition process
- differences between a strong acid and a concentrated acid and related units of measurement
- classifications of commonly used materials, ingredients and indicators according to pH
- typical strengths and concentration levels required for acids and bases commonly used in a production process
- basic molecular structures of carbohydrates, proteins and fats
- difference between solutions, suspensions and colloidal systems
- typical applications of solutions, suspensions and colloidal systems in food processing
- factors that affect stability of colloidal systems
- common chemical reactions that occur in food processing
- role of enzymes in generating biological reactions
- safety hazards and control methods
- technical information resources

## Evidence Guide

### EVIDENCE GUIDE

The Evidence Guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.

#### Overview of assessment

Assessment must be carried out in a manner that

<b>EVIDENCE GUIDE</b>	
	recognises the cultural and literacy requirements of the assessee and is appropriate to the work performed. Competence in this unit must be achieved in accordance with food safety standards and regulations.
<b>Critical aspects for assessment and evidence required to demonstrate competency in this unit</b>	<p>Evidence of ability to:</p> <ul style="list-style-type: none"> <li>• identify physical and chemical characteristics of food materials and the impacts of production processes on these characteristics</li> <li>• identify common tests and measures to assess food materials</li> <li>• identify the characteristics of acids and bases and their application in food processing</li> <li>• identify the basic molecular structures of carbohydrates, proteins and fats</li> <li>• distinguish the difference between solutions, suspensions and colloidal systems</li> <li>• identify hazards and control methods in managing hazardous materials</li> <li>• communicate technical information using correct technical terms, flow charts and sketches.</li> </ul>
<b>Context of and specific resources for assessment</b>	<p>Assessment must occur in a real or simulated workplace where the assessee has access to:</p> <ul style="list-style-type: none"> <li>• production process and related equipment, manufacturers' advice and operating procedures</li> <li>• tests used to report relevant product/process information and recorded results.</li> </ul>
<b>Method of assessment</b>	This unit should be assessed together with core units and other units of competency relevant to the function or work role.
<b>Guidance information for assessment</b>	To ensure consistency in one's performance, competency should be demonstrated on more than one occasion over a period of time in order to cover a variety of circumstances, cases and responsibilities, and where possible, over a number of assessment activities.

## Range Statement

**RANGE STATEMENT**

## RANGE STATEMENT

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.

<b>Handling and processing of product and materials</b>	Handling and processing of product and materials is consistent with company standards and requirements, legislative requirements, codes, industrial awards and agreements
<b>Identification of molecular structure</b>	Identification of molecular structure can be supported by others and does not necessarily involve use of microscopes in a laboratory

## Unit Sector(s)

<b>Unit sector</b>	Technical
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## Competency field

<b>Competency field</b>	
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## Co-requisite units

<b>Co-requisite units</b>		

## FDFTEC4010A Manage water treatment processes

### Modification History

November 2011: update to imported prerequisite, minor typographical error corrected.

### Unit Descriptor

<b>Unit descriptor</b>	This unit of competency covers the skills and knowledge required to treat water for use in production stages, such as washing and cooling and to treat waste water.
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### Application of the Unit

<b>Application of the unit</b>	This unit is designed to provide an overview of water treatment methods and responsibilities across a food production site. It is not designed to meet the competency requirements of the person who specifies water quality standards and/or treatment methods.
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### Licensing/Regulatory Information

Not applicable.

### Pre-Requisites

<b>Prerequisite units</b>		
	MSAENV272B	Participate in environmentally sustainable work practices



## Employability Skills Information

<b>Employability skills</b>	This unit contains employability skills.
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## Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.	Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.
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## Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Manage water treatment processes	<p>1.1. Uses of water within the plant and the related quality requirement for each use are identified</p> <p>1.2. Appropriate treatment methods are in place to meet treatment requirements</p> <p>1.3. Environmental considerations for water treatment are identified and treatment options selected or applied to minimise environmental impact</p> <p>1.4. Procedures for treating water are developed and/or reviewed</p>
2. Manage waste water treatment and disposal	<p>2.1. Sources and characteristics of waste water generated across food processing operations are identified</p> <p>2.2. Methods for treating and recycling water are identified</p> <p>2.3. Appropriate treatment methods are in place to meet treatment requirements</p> <p>2.4. Legal requirements for water discharge are identified</p> <p>2.5. Factors affecting the cost of water discharge are identified and monitored</p> <p>2.6. Conditions that could result in non-compliance and the related control methods in place to prevent this from occurring are established</p> <p>2.7. Procedures for treatment of waste water are developed and/or reviewed to ensure compliance with</p>

ELEMENT	PERFORMANCE CRITERIA
	<p>trade waste standards and minimal impact to the environment</p> <p>2.8. Opportunities to reduce the volume of trade waste and improve treatment methods are identified, investigated and implemented within level of responsibility</p>

## Required Skills and Knowledge

### REQUIRED SKILLS AND KNOWLEDGE

This section describes the skills and knowledge required for this unit.

#### Required skills

##### *Ability to:*

- map the uses of water in production across the production site, such as water used in cooling applications, and washing/flushing
- identify treatment requirements and methods for water used in production, such as addition of sanitising agents (e.g. chlorine and anti-rust agents)
- identify causes of risks associated with Legionella and related control measures
- describe the meaning of terms and concepts used to describe water quality, such as:
  - potable
  - total residual chlorine
  - free residual chlorine
  - available chlorine
- identify acceptable limits for water going to storm water (pH range)
- identify the legal, social and environmental consequences of releasing water to the environment that does not meet water quality standards
- identify characteristics that are monitored in waste water and how these affect the cost of trade waste disposal (this is set out in agreements with the water supplier and typically includes volume, BOD, suspended solids, and nitrogen - some types of heavy metals may also be monitored although this may not directly affect cost of disposal)
- identify equipment and methods used to monitor waste water characteristics, including meters used to measure volume and a sampling and testing regime to check water quality
- describe principles of common methods used to treat trade waste and identify typical applications, including both primary and secondary treatment stages
- identify conditions that could result in failure to comply with legal requirements for storm water and related control methods (e.g. spill control consequences and

## REQUIRED SKILLS AND KNOWLEDGE

control methods)

- identify conditions that could result in high costs of trade waste disposal and related control methods, such as conditions or activities that place additional load on treatment processes (e.g. use of strong cleaning chemicals and related control measures)
- develop and/or review procedures to describe procedures to minimise costs of trade waste disposal, including good housekeeping practices, such as collection of solids and materials rather than hosing them down drains
- identify the rights of relevant authorities to enter the site and conduct independent sample collection and test procedures
- Identify appropriate communication and consultation systems to support continuous improvement of resource efficiency and waste management
- identify trends in environmental management and social expectations of companies and assess the company environmental policy and related procedures in light of these trends
- map the drainage points across a production site, including identifying drains that go to bunded areas, trade waste and storm water
- map the waste water generated at each stage of the food processing operation (for each stream generated, identify the characteristics of waste water and related treatment requirements)
- carry out an assessment on water use within a given process
- identify the quantities and applications of water, the treatment stages, if any, points where water could be more effectively conserved, such as running hoses, steam leaks, and waste water generated by the process
- identify the treatment methods currently in place and consider opportunities to improve resource utilisation through conservation of water, changing materials and processing methods and/or more effective treating and/or recycling of waste water
- based on investigations, develop improvement proposals (this may be undertaken with input from relevant technical specialists)
- establish and/or utilise consultative arrangements to canvass input on efficient water use and trade waste treatment methods
- communicate information on changes to workplace systems and procedures to support improvements
- use communication skills to interpret and complete work information to support operations of work team or area
- demonstrate and support cooperative work practices within a culturally diverse workforce

### Required knowledge

#### *Knowledge of:*

- uses of water in production
- treatment requirements and methods for water used in production
- legal, social and environmental consequences of releasing water to the environment

**REQUIRED SKILLS AND KNOWLEDGE**

- causes of risks associated with Legionella and related control measures
- acceptable limits for water going to storm water (pH range)
- characteristics that are monitored in waste water and how these affect the cost of trade waste disposal
- rights of relevant authorities to enter the site and conduct independent sample collection and test procedures
- trends in environmental management
- characteristics of waste water and related treatment requirements
- methods for recycling water
- conditions that could result in non-compliance and the related control methods
- information resources

**Evidence Guide****EVIDENCE GUIDE**

The Evidence Guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.

**Overview of assessment**

Assessment must be carried out in a manner that recognises the cultural and literacy requirements of the assessee and is appropriate to the work performed. Competence in this unit must be achieved in accordance with food safety standards and regulations.

**Critical aspects for assessment and evidence required to demonstrate competency in this unit**

Evidence of ability to:

- identify and assess water usage and disposal processes in the production site
- identify environmental impacts of water use, treatment and disposal
- identify risks associated with water quality
- identify treatment requirements and methods for water used in production
- identify costs associated with use, treatment and disposal
- identify and assess opportunities for improving water efficiencies.

**Context of and specific resources for assessment**

Assessment must occur in a real or simulated workplace where the assessee has access to:

<b>EVIDENCE GUIDE</b>	
	<ul style="list-style-type: none"> <li>• company environmental policy and related procedures</li> <li>• site plans, including relevant advice on drainage system</li> <li>• advice on environmental hazards and control procedures relevant to the production facility</li> <li>• incident and emergency response procedures and equipment</li> <li>• workplace information recording systems, requirements and procedures.</li> </ul>
<b>Method of assessment</b>	This unit should be assessed together with core units and other units of competency relevant to the function or work role.
<b>Guidance information for assessment</b>	To ensure consistency in one's performance, competency should be demonstrated on more than one occasion over a period of time in order to cover a variety of circumstances, cases and responsibilities, and where possible, over a number of assessment activities.

## Range Statement

<b>RANGE STATEMENT</b>	
<p>The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.</p>	
<b>Water treatment and related work processes</b>	Water treatment and related work processes are consistent with company policies and procedures, regulatory and licensing requirements, legislative requirements, and industrial awards and agreements and takes account of occupational health and safety (OHS) and environmental impact
<b>Procedures for waste water treatment</b>	<p>Procedures for waste water treatment include:</p> <ul style="list-style-type: none"> <li>• safety information and procedures to respond to non-compliance and emergency situations</li> </ul>

<b>RANGE STATEMENT</b>	
<b>Out-of-specification results</b>	Follow up action in response to out-of-specification results occurs in consultation with the relevant quality/technical expert responsible for packaging specifications
<b>Primary treatment stages</b>	Primary treatment stages include but are not limited to: <ul style="list-style-type: none"> <li>• separation</li> <li>• filtration</li> <li>• sedimentation (settling tanks)</li> <li>• dissolved air floatation (DAF)</li> </ul>
<b>Secondary processes</b>	Secondary processes include but are not limited to: <ul style="list-style-type: none"> <li>• activated sludge</li> <li>• trickling filter systems</li> </ul>

## Unit Sector(s)

<b>Unit sector</b>	Technical
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## Competency field

<b>Competency field</b>	
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## Co-requisite units

<b>Co-requisite units</b>		

## FDFTEC4011A Participate in product recalls

### Modification History

November 2011: Updated to include correct prerequisite.

### Unit Descriptor

<b>Unit descriptor</b>	This unit of competency covers the skills and knowledge required to identify circumstances that could warrant a product recall and to initiate and/or participate in recall processes within level of authority.
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### Application of the Unit

<b>Application of the unit</b>	<p>This unit can apply where a person has primary responsibility for initiating a product recall or where they are required to participate in the recall decision and related process as part of a team.</p> <p>Product recalls occur in the context of an established recall procedure.</p>
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### Licensing/Regulatory Information

Not applicable.

### Pre-Requisites

<b>Prerequisite units</b>		
	FDFFS3001A	Monitor the implementation of quality and food safety programs* <i>FDFFS2001A Implement the food safety program and procedures</i>

## Employability Skills Information

<b>Employability skills</b>	This unit contains employability skills.
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## Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.	Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.
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## Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Identify product recall situations	1.1.Circumstances that could result in a product recall are identified 1.2.Appropriate controls are in place to manage risks 1.3.Criteria used to initiate a product recall are identified 1.4.Legal responsibilities and requirements of a recall program are identified
2. Participate in a product recall	2.1.The components of the product recall system in the workplace are identified 2.2.Workplace systems are used to trace ingredients, materials and batch information 2.3.Product recall procedures are implemented within level of responsibility 2.4.Procedures to define roles and levels of authority in the event of a product recall are established/reviewed
3. Review processes to minimise the risk of recurrence	3.1.The cause of the product recalls are investigated 3.2.Purchasing arrangements and in-house procedures are established or reviewed to minimise the risk of recurrence 3.3.Consultative mechanisms are established and/or reviewed to support continuous improvement and communicate information on product recalls



## Required Skills and Knowledge

### REQUIRED SKILLS AND KNOWLEDGE

This section describes the skills and knowledge required for this unit.

#### Required skills

##### *Ability to:*

- identify relevant workplace information, including the company's food safety plan and vendor assurance arrangements
- identify the risks that could result in the need to initiate a product recall and the control measures in place to prevent incidents occurring
- identify legal and company requirements of the product recall system, including the provisions of food safety legislation and related company system and criteria for determining when a recall is required
- for a given range of circumstances that could result in the need for a product recall, outline appropriate responsive action within company policy and procedures
- identify and/or develop the components of the recall system to meet company and legal requirements, including information recording systems to support traceability; identification of personnel responsible for assessing information and determining appropriate action, and procedures that define roles and levels of responsibility
- identify the social, financial, environmental and legal consequences of failing to initiate a recall or for delaying the decision
- identify and/or develop procedures for the investigation of causes and review of arrangements and procedures in the event of an incident, such as reviewing responses to previous incidents to assess effectiveness and/or developing recommendations on appropriate procedures
- identify and/or develop the appropriate communication systems and channels for consulting with people affected by the recall procedure and communicating information on improvements to be implemented
- use communication skills to interpret and complete work information to support operations of work team or area
- demonstrate and support cooperative work practices within a culturally diverse workforce

#### Required knowledge

##### *Knowledge of:*

- circumstances that could result in a product recall
- legal responsibilities and requirements of a recall program
- components of the recall system to meet company and legal requirements
- company's food safety plan and vendor assurance arrangements

**REQUIRED SKILLS AND KNOWLEDGE**

- risks that could result in the need to initiate a product recall and the control measures in place to prevent incidents occurring
- social, financial and legal consequences of failing to initiate a recall or for delaying the decision
- procedures for investigating causes
- communication requirements and procedures

**Evidence Guide****EVIDENCE GUIDE**

The Evidence Guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.

**Overview of assessment**

Assessment must be carried out in a manner that recognises the cultural and literacy requirements of the assessee and is appropriate to the work performed. Competence in this unit must be achieved in accordance with food safety standards and regulations.

**Critical aspects for assessment and evidence required to demonstrate competency in this unit**

Evidence of ability to:

- identify criteria and circumstances for a product recall
- identify controls designed to prevent product recall
- identify legal implications of a product recall
- identify features of the workplace product recall system and procedures
- participate in the implementation of the product recall procedures
- determine and examine the cause of product fault
- establish mechanisms to improve operations and minimise the risk of occurrence.

**Context of and specific resources for assessment**

Assessment must occur in a real or simulated workplace where the assessee has access to:

- company food safety program and related information relevant to product recall, such as contractual arrangements with suppliers, product specifications and process parameters, and recall procedures
- legislation relating to product recall, including

<b>EVIDENCE GUIDE</b>	
	relevant food safety legislation <ul style="list-style-type: none"> <li>workplace information recording systems, requirements and procedures.</li> </ul>
<b>Method of assessment</b>	This unit should be assessed together with core units and other units of competency relevant to the function or work role.
<b>Guidance information for assessment</b>	To ensure consistency in one's performance, competency should be demonstrated on more than one occasion over a period of time in order to cover a variety of circumstances, cases and responsibilities, and where possible, over a number of assessment activities.

## Range Statement

<b>RANGE STATEMENT</b>	
<p>The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.</p>	
<b>Policies and procedures</b>	Product recalls and related work processes are consistent with company policies and procedures, regulatory and licensing requirements, legislative requirements, and industrial awards and agreements and takes account of occupational health and safety (OHS) and environmental impact

## Unit Sector(s)

<b>Unit sector</b>	Technical
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## Competency field

Competency field	
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## Co-requisite units

Co-requisite units		

## FSKNUM09 Identify, measure and estimate familiar quantities for work

### Modification History

Release	Comments
Release 1	This streamlined version first released with <i>FSK Foundation Skills Training Package version 1.0</i> .

### Application

This unit describes the skills and knowledge required to measure familiar and predictable quantities using simple and routine measuring instruments and units.

This unit applies to individuals who need numeracy skills at Australian Core Skills Framework (ACSF) level 2 to undertake a vocational training pathway or workplace tasks.

This unit is designed for integration and contextualisation with vocational units to support achievement of vocational competency.

No licensing, legislative or certification requirements apply to this unit at the time of publication.

### Unit Sector

Numeracy

### Elements and Performance Criteria

Element	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Identify and interpret simple mathematical information	1.1 Identify and interpret measurement information in workplace tasks and texts 1.2 Identify familiar units of measurement needed for tasks

Element	Performance Criteria
2. Apply simple measurement strategies	2.1 Estimate familiar and simple amounts 2.2 Select appropriate measuring equipment 2.3 Use simple measuring equipment graduated in familiar units to measure relevant quantities 2.4 Calculate using familiar units of measurement
3. Check and communicate results	3.1 Check measurements and results against estimates 3.2 Record or report results 3.3 Communicate results relevant to the workplace task using informal and some formal mathematical and general language

## Foundation Skills

*This section describes language, literacy, numeracy and employment skills incorporated in the performance criteria that are required for competent performance.*

Skill	Performance Criteria	Description
		<ul style="list-style-type: none"><li>Foundation skills essential to performance are explicit in the performance criteria of this unit of competency.</li></ul>

## Mapping Information

Not applicable

## Links

Companion Volume implementation guides are found in VETNet -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=f572fe10-a855-4986-9295-3852c771f178>

## Assessment Requirements for FSKNUM09 Identify, measure and estimate familiar quantities for work

### Modification History

Release	Comments
Release 1	This streamlined version first released with <i>FSK Foundation Skills Training Package version 1.0</i> .

### Performance Evidence

Evidence of the ability to:

- estimate and measure familiar simple amounts
- interpret measurement on simple measuring equipment
- add, subtract and multiply simple measurements
- record results using appropriate unit.

Note: Where a specific volume and/or frequency is not specified, evidence must be provided at least once.

### Knowledge Evidence

Evidence of the following knowledge must be demonstrated:

- abbreviations of familiar units of measurement
- which units of measurement to use for length, mass and capacity.

### Assessment Conditions

Assessment texts and tasks reflect those typically found in the workplace.

Advice and support is available if requested.

A basic calculator can be used.

Culturally appropriate processes and techniques suited to the language, literacy and numeracy capacity of individuals and the work being performed must be used.

Reasonable adjustments can be made to ensure equity in assessment for people with disabilities.

Assessors must satisfy NVR/AQTF assessor requirements, have a sound knowledge of the ACSF and have demonstrable expertise in the vocational contextualisation and assessment of the core skill - numeracy.

## Links

Companion Volume implementation guides are found in VETNet -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=f572fe10-a855-4986-9295-3852c771f178>



## FSKNUM31 Apply a wide range of mathematical calculations for work

### Modification History

Release	Comments
Release 1	This streamlined version first released with <i>FSK Foundation Skills Training Package version 1.0</i> .

### Application

This unit describes the skills and knowledge to extract, comprehend and analyse a broad range of mathematical information and complete complex mathematical tasks. This includes using rational and relevant irrational numbers and performing calculations required in specialist areas of mathematics applicable to the workplace.

This unit applies to individuals who need numeracy skills at Australian Core Skills Framework (ACSF) level 5 to undertake a vocational training pathway or workplace tasks.

This unit is designed for integration and contextualisation with vocational units to support achievement of vocational competency.

No licensing, legislative or certification requirements apply to this unit at the time of publication.

### Unit Sector

Numeracy

### Elements and Performance Criteria

Element	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Extract, comprehend and analyse mathematical information	1.1 Extract and analyse mathematical information that may be highly embedded in a broad range of workplace tasks and texts

Element	Performance Criteria
	1.2 Comprehend and use rational numbers 1.3 Comprehend and use relevant irrational numbers
2. Undertake complex mathematical calculations for workplace tasks	2.1 Manipulate and simplify mathematical expressions 2.2 Perform calculations relevant to work involving rational and irrational numbers
3. Check and communicate results	3.1 Use estimation and assessment processes to check results 3.2 Report the result using specialised mathematical language and symbols appropriate for the task

## Foundation Skills

*This section describes language, literacy, numeracy and employment skills incorporated in the performance criteria that are required for competent performance.*

Skill	Performance Criteria	Description
Writing		<ul style="list-style-type: none"><li>Records steps of calculation and result, uses symbolism appropriate to task</li></ul>
Technology		<ul style="list-style-type: none"><li>Uses scientific calculator</li></ul>

## Mapping Information

Not applicable

## Links

Companion Volume implementation guides are found in VETNet -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=f572fe10-a855-4986-9295-3852c771f178>

## Assessment Requirements for FSKNUM31 Apply a wide range of mathematical calculations for work

### Modification History

Release	Comments
Release 1	This streamlined version first released with <i>FSK Foundation Skills Training Package version 1.0</i> .

### Performance Evidence

Evidence of the ability to:

- perform a broad range of calculations using rational and irrational numbers.

Note: Where a specific volume and/or frequency is not specified, evidence must be provided at least once.

### Knowledge Evidence

Evidence of the following knowledge must be demonstrated:

- irrational numbers relevant to work context.

### Assessment Conditions

Assessment texts and tasks reflect those typically found in the workplace.

Individuals can access a broad range of support resources.

Culturally appropriate processes and techniques suited to the language, literacy and numeracy capacity of individuals and the work being performed must be used.

Reasonable adjustments can be made to ensure equity in assessment for people with disabilities.

Assessors must satisfy NVR/AQTF assessor requirements, have a sound knowledge of the ACSF and have demonstrable expertise in the vocational contextualisation and assessment of the core skill - numeracy.

## Links

Companion Volume implementation guides are found in VETNet -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=f572fe10-a855-4986-9295-3852c771f178>

## HLTAID002 Provide basic emergency life support

### Modification History

Release	Comments
Release 4	Updated: <ul style="list-style-type: none"><li>• assessor requirements statement</li><li>• foundation skills lead in statement</li><li>• licensing statement</li><li>• modification history to reflect 2012 standards</li></ul> Equivalent outcome.
Release 3	Updated mapping information. Changes to assessment requirements. Equivalent outcome.
Release 2	Minor corrections to formatting to improve readability. Equivalent competency outcome.
Release 1	<p>This version was released in <i>HLT Health Training Package release 1.0</i> and meets the requirements of the 2012 Standards for Training Packages.</p> <p>Significant changes to elements and performance criteria, changes to scope of unit. Changes to evidence requirements relative to revised scope of unit.</p>

### Application

This unit describes the skills and knowledge required to recognise and respond to life-threatening emergencies in line with the Australian Resuscitation Council (ARC) Guidelines.

This unit applies to all workers who may be required to provide an emergency response in a range of situations, including community and workplace settings.

*Specific licensing /regulatory requirements relating to this competency, including requirements for refresher training should be obtained from the relevant national/state/territory Work Health and Safety Regulatory Authorities.*

## Elements and Performance Criteria

### ELEMENT

### PERFORMANCE CRITERIA

*Elements define the essential outcomes.*

*Performance criteria specify the level of performance needed to demonstrate achievement of the element.*

#### 1. Respond to an emergency situation

##### 1.1 Recognise an emergency situation

1.2 Identify, assess and minimise immediate hazards to health and safety of self and others

1.3 Assess the casualty and recognise the need for first aid response

1.4 Assess the situation and seek assistance from emergency response services

#### 2. Apply appropriate first aid procedures

2.1 Perform cardiopulmonary resuscitation (CPR) in accordance with ARC guidelines

2.2 Provide first aid in accordance with established first aid principles

2.3 Display respectful behaviour towards casualty

2.4 Obtain consent from casualty where possible

2.5 Use available resources and equipment to make the casualty as comfortable as possible

2.6 Operate first aid equipment according to manufacturer's instructions

2.7 Monitor the casualty's condition and respond in accordance with first aid principles

#### 3. Communicate details of the incident

3.1 Accurately convey incident details to emergency response services

3.2 Report details of incident to workplace supervisor as appropriate

3.3 Maintain confidentiality of records and information in line with statutory and/or organisational policies

## Foundation Skills

*The Foundation Skills describe those required skills (language, literacy, numeracy and employment skills) that are essential to performance.*

Foundation skills essential to performance are explicit in the performance criteria of this unit of competency.

## Unit Mapping Information

No equivalent unit.

## Links

Companion Volume implementation guides are found in VETNet -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=ced1390f-48d9-4ab0-bd50-b015e5485705>

## Assessment Requirements for HLTAID002 Provide basic emergency life support

### Modification History

Release	Comments
Release 4	Updated: <ul style="list-style-type: none"> <li>• assessor requirements statement</li> <li>• foundation skills lead in statement</li> <li>• licensing statement</li> <li>• modification history to reflect 2012 standards</li> </ul> Equivalent outcome.
Release 3	Updated mapping information. Changes to assessment requirements. Equivalent outcome.
Release 2	Minor corrections to formatting to improve readability. Equivalent competency outcome.
Release 1	<p>This version was released in <i>HLT Health Training Package release 1.0</i> and meets the requirements of the 2012 Standards for Training Packages.</p> <p>Significant changes to elements and performance criteria, changes to scope of unit. Changes to evidence requirements relative to revised scope of unit.</p>

### Performance Evidence

The candidate must show evidence of the ability to complete tasks outlined in elements and performance criteria of this unit, manage tasks and manage contingencies in the context of the job role.

There must be evidence that the candidate has completed the following tasks in line with state/territory regulations, first aid codes of practice, Australian Resuscitation Council (ARC) guidelines and workplace procedures:

- Followed DRSABCD in line with ARC guidelines, including:
  - performed at least 2 minutes of uninterrupted single rescuer cardiopulmonary resuscitation (CPR) (5 cycles of both compressions and ventilations) on an adult resuscitation manikin placed on the floor



- performed at least 2 minutes of uninterrupted single rescuer CPR (5 cycles both compressions and ventilations) on an infant resuscitation manikin placed on a firm surface
- responded appropriately in the event of regurgitation or vomiting
- managed the unconscious breathing casualty
- followed single rescue procedure, including the demonstration of a rotation of operators with minimal interruptions to compressions
- followed the prompts of an Automated External Defibrillator (AED)
- Responded to at least one simulated first aid scenario contextualised to the candidate's workplace/community setting, including:
  - demonstrated safe manual handling techniques
  - provided an accurate verbal or written report of the incident
- Applied first aid procedures for the following:
  - allergic reaction
  - anaphylaxis
  - bleeding control
  - choking and airway obstruction
  - respiratory distress, including asthma
  - shock

## Knowledge Evidence

The candidate must be able to demonstrate essential knowledge required to effectively complete tasks outlined in elements and performance criteria of this unit, manage tasks and manage contingencies in the context of the work role. This includes knowledge of:

- State/Territory regulations, first aid codes of practice and workplace procedures including:
  - ARC Guidelines relevant to provision of CPR and first aid
  - safe work practices to minimise risks and potential hazards
  - Infection control principles and procedures, including use of standard precautions
  - requirements for currency of skill and knowledge
- legal, workplace and community considerations, including:
  - awareness of potential need for stress-management techniques and available support following an emergency situation
  - duty of care requirements
  - respectful behaviour towards a casualty
  - own skills and limitations
  - consent
  - privacy and confidentiality requirements
  - importance of debriefing
- considerations when providing basic emergency life support, including:
  - airway obstruction due to body position

- appropriate duration and cessation of CPR
- appropriate use of an AED
- chain of survival
- standard precautions
- principles and procedures for first aid management of the following scenarios:
  - allergic reaction
  - anaphylaxis
  - bleeding control
  - cardiac conditions, including chest pain
  - choking and airway obstruction
  - respiratory distress, including asthma
  - shock
  - stroke
- basic anatomy and physiology relating to:
  - considerations in provision of first aid for specified conditions
  - chest
  - how to recognise a person is not breathing normally
  - response/consciousness
  - upper airway and effect of positional change

## Assessment Conditions

Skills must be demonstrated working individually in an environment that provides realistic in-depth, industry-validated scenarios and simulations to assess candidates' skills and knowledge.

Assessment resources must include:

- adult and infant resuscitation manikins in line with ARC Guidelines for the purpose of assessment of CPR procedures
- adrenaline auto-injector training device
- AED training device
- placebo bronchodilator and spacer device
- roller bandages
- triangular bandage
- workplace First Aid kit
- workplace injury, trauma and/or illness record, or other appropriate workplace incident report form
- wound dressing

Simulated assessment environments must simulate the real-life working environment where these skills and knowledge would be performed, with all the relevant equipment and resources of that working environment.

### **Assessor requirements**

Assessors must satisfy the Standards for Registered Training Organisations (RTOs) 2015/AQTF mandatory competency requirements for assessors.

In addition hold current first aid certificate HLTAID003 or higher.

### **Links**

Companion Volume implementation guides are found in VETNet -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=ced1390f-48d9-4ab0-bd50-b015e5485705>

## HLTAID003 Provide first aid

### Modification History

Release	Comments
Release 6	Updated: <ul style="list-style-type: none"><li>• assessor requirements statement</li><li>• foundation skills lead in statement</li><li>• licensing statement</li><li>• modification history to reflect 2012 standards</li></ul> Equivalent outcome.
Release 5	Updated mapping information. Changes to assessment requirements. Equivalent outcome.
Release 4	Updated mapping information. Equivalent outcome.
Release 3	Updated mapping information.
Release 2	Minor corrections to formatting to improve readability. Equivalent competency outcome.
Release 1	<p>This version was released in <i>HLT Health Training Package release 1.0</i> and meets the requirements of the 2012 Standards for Training Packages.</p> <p>Significant changes to elements and performance criteria, changes to scope of unit. New evidence requirements for assessment.</p> <p>Removal of prerequisite unit.</p>

### Application

This unit describes the skills and knowledge required to provide a first aid response to a casualty. The unit applies to all workers who may be required to provide a first aid response in a range of situations, including community and workplace settings.

*Specific licensing /regulatory requirements relating to this competency, including requirements for refresher training should be obtained from the relevant national/state/territory Work Health and Safety Regulatory Authorities.*

## Elements and Performance Criteria

### ELEMENT

### PERFORMANCE CRITERIA

*Elements define the essential outcomes.*

*Performance criteria specify the level of performance needed to demonstrate achievement of the element.*

1. Respond to an emergency situation

- 1.1 Recognise an emergency situation
- 1.2 Identify, assess and manage immediate hazards to health and safety of self and others
- 1.3 Assess the casualty and recognise the need for first aid response
- 1.4 Assess the situation and seek assistance from emergency response services

2. Apply appropriate first aid procedures

- 2.1 Perform cardiopulmonary resuscitation (CPR) in accordance with Australian Resuscitation Council (ARC) guidelines
- 2.2 Provide first aid in accordance with established first aid principles
- 2.3 Display respectful behaviour towards casualty
- 2.4 Obtain consent from casualty where possible
- 2.5 Use available resources and equipment to make the casualty as comfortable as possible
- 2.6 Operate first aid equipment according to manufacturer's instructions
- 2.7 Monitor the casualty's condition and respond in accordance with first aid principles

3. Communicate details of the incident

- 3.1 Accurately convey incident details to emergency response services
- 3.2 Report details of incident to workplace supervisor as appropriate
- 3.3 Maintain confidentiality of records and information in line with statutory and/or organisational policies

**ELEMENT****PERFORMANCE CRITERIA**

*Elements define the essential outcomes.*

*Performance criteria specify the level of performance needed to demonstrate achievement of the element.*

4. Evaluate the incident and own performance

4.1 Recognise the possible psychological impacts on self and other rescuers involved in critical incidents

4.2 Participate in debriefing to address individual needs

**Foundation Skills**

*The Foundation Skills describe those required skills (language, literacy, numeracy and employment skills) that are essential to performance.*

Foundation skills essential to performance are explicit in the performance criteria of this unit of competency.

**Unit Mapping Information**

No equivalent unit.

**Links**

Companion Volume implementation guides are found in VETNet -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=ced1390f-48d9-4ab0-bd50-b015e5485705>

## Assessment Requirements for HLTAID003 Provide first aid

### Modification History

Release	Comments
Release 6	Updated: <ul style="list-style-type: none"><li>• assessor requirements statement</li><li>• foundation skills lead in statement</li><li>• licensing statement</li><li>• modification history to reflect 2012 standards</li></ul> Equivalent outcome.
Release 5	Updated mapping information. Changes to assessment requirements. Equivalent outcome.
Release 4	Updated mapping information. Equivalent outcome.
Release 3	Updated mapping information.
Release 2	Minor corrections to formatting to improve readability. Equivalent competency outcome.
Release 1	This version was released in <i>HLT Health Training Package release 1.0</i> and meets the requirements of the 2012 Standards for Training Packages.  Significant changes to elements and performance criteria, changes to scope of unit. New evidence requirements for assessment.  Removal of prerequisite unit.

### Performance Evidence

The candidate must show evidence of the ability to complete tasks outlined in elements and performance criteria of this unit, manage tasks and manage contingencies in the context of the job role.

There must be evidence that the candidate has completed the following tasks in line with state/territory regulations, first aid codes of practice, Australian Resuscitation Council (ARC) guidelines and workplace procedures:

- Followed DRSABCD in line with ARC guidelines, including:

- performed at least 2 minutes of uninterrupted single rescuer cardiopulmonary resuscitation (CPR) (5 cycles of both compressions and ventilations) on an adult resuscitation manikin placed on the floor
- performed at least 2 minutes of uninterrupted single rescuer CPR (5 cycles both compressions and ventilations) on an infant resuscitation manikin placed on a firm surface
- responded appropriately in the event of regurgitation or vomiting
- managed the unconscious breathing casualty
- followed single rescue procedure, including the demonstration of a rotation of operators with minimal interruptions to compressions
- followed the prompts of an Automated External Defibrillator (AED)
- Responded to at least two simulated first aid scenarios contextualised to the candidate's workplace/community setting, including:
  - conducted a visual and verbal assessment of the casualty
  - demonstrated safe manual handling techniques
  - post-incident debrief and evaluation
  - provided an accurate verbal or written report of the incident
- Applied first aid procedures for the following:
  - allergic reaction
  - anaphylaxis
  - bleeding control
  - choking and airway obstruction
  - envenomation, using pressure immobilisation
  - fractures, sprains and strains, using arm slings, roller bandages or other appropriate immobilisation techniques
  - respiratory distress, including asthma
  - shock

## Knowledge Evidence

The candidate must be able to demonstrate essential knowledge required to effectively complete tasks outlined in elements and performance criteria of this unit, manage tasks and manage contingencies in the context of the work role. This includes knowledge of:

- State/Territory regulations, first aid codes of practice and workplace procedures including:
  - ARC Guidelines relevant to provision of CPR and first aid
  - safe work practices to minimise risks and potential hazards
  - infection control principles and procedures, including use of standard precautions
  - requirements for currency of skill and knowledge
- legal, workplace and community considerations including:
  - awareness of potential need for stress-management techniques and available support following an emergency situation
  - duty of care requirements



- respectful behaviour towards a casualty
- own skills and limitations
- consent
- privacy and confidentiality requirements
- importance of debriefing
- considerations when providing first aid including:
  - airway obstruction due to body position
  - appropriate duration and cessation of CPR
  - appropriate use of an AED
  - chain of survival
  - standard precautions
  - how to conduct a visual and verbal assessment of the casualty
- principles and procedures for first aid management of the following scenarios:
  - abdominal injuries
  - allergic reaction
  - anaphylaxis
  - basic care of a wound
  - bleeding control
  - burns
  - cardiac conditions, including chest pain
  - choking and airway obstruction
  - crush injuries
  - diabetes
  - dislocations
  - drowning
  - envenomation
  - environmental impact, including hypothermia, hyperthermia, dehydration and heat stroke
  - eye and ear injuries
  - fractures
  - febrile convulsions
  - head, neck and spinal injuries
  - minor skin injuries
  - needle stick injuries
  - poisoning and toxic substances
  - respiratory distress, including asthma
  - seizures, including epilepsy
  - shock
  - soft tissue injuries, including strains and, sprains
  - stroke

- unconsciousness
- basic anatomy and physiology relating to:
  - how to recognise a person is not breathing normally
  - chest
  - response/consciousness
  - upper airway and effect of positional change
  - considerations in provision of first aid for specified conditions

## Assessment Conditions

Skills must be demonstrated working individually in an environment that provides realistic in-depth, industry-validated scenarios and simulations to assess candidates' skills and knowledge.

Assessment resources must include:

- adult and infant resuscitation manikins in line with ARC Guidelines for the purpose of assessment of CPR procedures
- adrenaline auto-injector training device
- AED training device
- placebo bronchodilator and spacer device
- roller bandages
- triangular bandages
- workplace First Aid kit
- workplace injury, trauma and/or illness record, or other appropriate workplace incident report form for written reports
- wound dressings

Simulated assessment environments must simulate the real-life working environment where these skills and knowledge would be performed, with all the relevant equipment and resources of that working environment.

## Assessor requirements

Assessors must satisfy the Standards for Registered Training Organisations (RTOs) 2015/AQTF mandatory competency requirements for assessors.

## Links

Companion Volume implementation guides are found in VETNet -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=ced1390f-48d9-4ab0-bd50-b015e5485705>

# HLTAID010 Provide basic emergency life support

## Modification History

Not applicable.

## Application

This unit describes the skills and knowledge required to recognise and respond to life-threatening emergencies in line with first aid guidelines determined by the Australian Resuscitation Council (ARC) and other Australian national peak clinical bodies.

This unit applies to all persons who may be required to provide an emergency response in a range of situations, including community and workplace settings.

*Specific licensing/regulatory requirements relating to this competency, including requirements for refresher training should be obtained from the relevant national/state/territory Work Health and Safety Regulatory Authorities*

## Elements and Performance Criteria

### ELEMENTS

### PERFORMANCE CRITERIA

*Elements describe the essential outcomes*

*Performance criteria describe the performance needed to demonstrate achievement of the element.*

1. Respond to an emergency situation.

- 1.1. Recognise and assess an emergency situation.
- 1.2. Ensure safety for self, bystanders and casualty.
- 1.3. Assess the casualty and recognise the need for first aid response.
- 1.4. Seek assistance from emergency services.

2. Apply appropriate first aid procedures.

- 2.1. Perform cardiopulmonary resuscitation (CPR) in accordance with the ARC guidelines.
- 2.2. Provide first aid in accordance with established first aid principles.
- 2.3. Display respectful behaviour towards casualty.
- 2.4. Obtain consent from casualty where possible.
- 2.5. Use available resources and equipment to make the casualty as comfortable as possible.
- 2.6. Operate first aid equipment according to manufacturers' instructions.
- 2.7. Monitor the casualty's condition and respond in accordance with first aid principles.

- 3. Communicate details of the incident.
  - 3.1. Accurately convey incident details to emergency services.
  - 3.2. Report details of incident in line with appropriate workplace or site procedures.
  - 3.3. Maintain privacy and confidentiality of information in line with statutory or organisational policies.
- 4. Review the incident.
  - 4.1. Recognise the possible psychological impacts on self and other rescuers and seek help when required.
  - 4.2. Contribute to a review of the first aid response as required.

## Foundation Skills

The Foundation Skills describe those required skills (language, literacy, numeracy and employment skills) that are essential to performance.

Foundation skills essential to performance are explicit in the performance criteria of this unit of competency.

## Unit Mapping Information

Supersedes and not equivalent to HLTAID002 Provide basic emergency life support

## Links

Companion Volume implementation guides are found in VETNet -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=ced1390f-48d9-4ab0-bd50-b015e5485705>

# Assessment Requirements for HLTAID010 Provide basic emergency life support

## Modification History

Not applicable.

## Performance Evidence

Evidence of the ability to complete tasks outlined in elements and performance criteria of this unit in the context of the workplace or community setting.

There must be evidence that the candidate has completed the following tasks in line with State/Territory regulations, first aid codes of practice, first aid guidelines determined by the Australian Resuscitation Council (ARC) and other Australian national peak clinical bodies and workplace or site procedures:

- managed, in line with ARC guidelines, the unconscious, breathing casualty including appropriate positioning to reduce the risk of airway compromise
- managed, in line with ARC guidelines, the unconscious, non-breathing adult, including:
  - performing at least 2 minutes of uninterrupted single rescuer cardiopulmonary resuscitation (CPR) (5 cycles of both compressions and ventilations) on an adult resuscitation manikin placed on the floor
  - following the prompts of an automated external defibrillator (AED) to deliver at least one shock
  - demonstrating a rotation of single rescuer operators with minimal interruptions to compressions
  - responding appropriately in the event of regurgitation or vomiting
- managed, in line with ARC guidelines, the unconscious, non-breathing infant, including:
  - performing at least 2 minutes of uninterrupted single rescuer CPR (5 cycles both compressions and ventilations) on an infant resuscitation manikin placed on a firm surface
- managed casualties, with the following:
  - anaphylaxis
  - asthma
  - non-life-threatening bleeding
  - choking
  - shock
- responded to at least one simulated first aid incident contextualised to the candidate's workplace or community setting, where the candidate has no knowledge of the casualty's condition prior to starting treatment, including:
  - identifying the casualty's illness or injury through history, signs and symptoms
  - using personal protective equipment (PPE)

- providing appropriate first aid treatment
- conveying incident details to emergency services or advising casualty on any required post incident action
- providing an accurate verbal report of the incident
- reviewing the incident.

## Knowledge Evidence

Demonstrated knowledge required to complete the tasks outlined in elements and performance criteria of this unit:

guidelines and procedures including:

- ARC guidelines relevant to the provision of first aid
- first aid guidelines from Australian national peak clinical bodies
- potential incident hazards and risk minimisation processes when providing first aid
- infection control procedures, including use of standard precautions and resuscitation barrier devices
- requirements for currency of skill and knowledge
- first aid codes of practice
- appropriate workplace or site procedures relevant to the provision of first aid
- contents of first aid kits
- legal, workplace and community considerations, including:
  - duty of care requirements
  - own skills and limitations
  - consent and how it relates to the conscious and unconscious casualty
  - privacy and confidentiality requirements
  - awareness of potential need for stress management techniques and available support for rescuers
- considerations when providing CPR, including:
  - upper airway and effect of positional change
  - appropriate duration and cessation of CPR
  - appropriate use of an AED
  - safety and maintenance procedures for an AED
  - chain of survival
  - how to access emergency services
- techniques for providing CPR to adults, children and infants including:
  - how to recognise that a casualty is unconscious and not breathing normally
  - rate, ratio and depth of compressions and ventilations
  - correct hand positioning for compressions
  - basic anatomy, physiology and the differences between adults, children and infants relating to CPR
- Signs, symptoms and management of the following conditions or injuries:

- allergic reaction
- anaphylaxis
- asthma
- non-life-threatening and life-threatening bleeding
- cardiac conditions, including chest pain
- choking
- shock
- stroke.

## Assessment Conditions

Each candidate to demonstrate skills in an environment that provides realistic in-depth, scenarios and simulations to assess candidates' skills and knowledge.

Due to the nature of this type of training, it is acceptable for the performance evidence to be collected in a simulated environment.

Compression and ventilation skills must be demonstrated on resuscitation manikins following ARC guidelines for the purpose of assessment of CPR procedures.

Assessment must ensure access to:

- adult and infant resuscitation manikins following ARC guidelines for the purpose of assessment of CPR procedures
- workplace first aid kit
- adrenaline auto-injector training device
- AED training devices
- placebo bronchodilator and spacer device
- different types of wound dressings and bandages
- blankets and items to treat for shock
- personal protective equipment (PPE).

Simulated assessment environments must simulate real-life situations where these skills and knowledge would be performed, with all the relevant equipment and resources of that workplace or community environment.

Assessors must satisfy the Standards for Registered Training Organisations' requirements for assessors and must hold this unit or demonstrate equivalent skills and knowledge to that contained within this unit

## Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=ced1390f-48d9-4ab0-bd50-b015e5485705>

# HLTAID011 Provide First Aid

## Modification History

Not applicable.

## Application

This unit describes the skills and knowledge required to provide a first aid response to a casualty in line with first aid guidelines determined by the Australian Resuscitation Council (ARC) and other Australian national peak clinical bodies.

The unit applies to all persons who may be required to provide a first aid response in a range of situations, including community and workplace settings.

*Specific licensing/regulatory requirements relating to this competency, including requirements for refresher training should be obtained from the relevant national/state/territory Work Health and Safety Regulatory Authorities.*

## Elements and Performance Criteria

### ELEMENTS

### PERFORMANCE CRITERIA

*Elements describe the essential outcomes*

*Performance criteria describe the performance needed to demonstrate achievement of the element.*

1. Respond to an emergency situation.

- 1.1. Recognise and assess an emergency situation.
- 1.2. Ensure safety for self, bystanders and casualty.
- 1.3. Assess the casualty and recognise the need for first aid response.
- 1.4. Seek assistance from emergency services.

2. Apply appropriate first aid procedures.

- 2.1. Perform cardiopulmonary resuscitation (CPR) in accordance ARC guidelines.
- 2.2. Provide first aid in accordance with established first aid principles.
- 2.3. Display respectful behaviour towards casualty.
- 2.4. Obtain consent from casualty where possible.
- 2.5. Use available resources and equipment to make the casualty as comfortable as possible.
- 2.6. Operate first aid equipment according to manufacturers' instructions.
- 2.7. Monitor the casualty's condition and respond in accordance with first aid principles.



- |   |   |
|---|---|
| 3. Communicate details of the incident. | 3.1. Accurately convey incident details to emergency services.  |
|   | 3.2. Report details of incident in line with appropriate workplace or site procedures.                      |
|   | 3.3. Complete applicable workplace or site documentation, including incident report form.                   |
|   | 3.4. Maintain privacy and confidentiality of information in line with statutory or organisational policies. |
| 4. Review the incident.                 | 4.1. Recognise the possible psychological impacts on self and other rescuers and seek help when required.   |
|   | 4.2. Contribute to a review of the first aid response as required.  |

## Foundation Skills

The Foundation Skills describe those required skills (language, literacy, numeracy and employment skills) that are essential to performance.

Foundation skills essential to performance are explicit in the performance criteria of this unit of competency.

## Unit Mapping Information

Supersedes and not equivalent to HLTAID003 Provide first aid

## Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=ced1390f-48d9-4ab0-bd50-b015e5485705>

# Assessment Requirements for HLTAID011 Provide First Aid

## Modification History

Not applicable.

## Performance Evidence

Evidence of the ability to complete tasks outlined in elements and performance criteria of this unit in the context of the workplace or community setting.

There must be evidence that the candidate has completed the following tasks in line with State/Territory regulations, first aid codes of practice, first aid guidelines determined by the Australian Resuscitation Council (ARC) and other Australian national peak clinical bodies and workplace or site procedures:

- managed, in line with ARC guidelines, the unconscious, breathing casualty including appropriate positioning to reduce the risk of airway compromise
- managed, in line with ARC guidelines, the unconscious, non-breathing adult, including:
  - performing at least 2 minutes of uninterrupted single rescuer cardiopulmonary resuscitation (CPR) (5 cycles of both compressions and ventilations) on an adult resuscitation manikin placed on the floor
  - following the prompts of an automated external defibrillator (AED) to deliver at least one shock
  - demonstrating a rotation of single rescuer operators with minimal interruptions to compressions
  - responding appropriately in the event of regurgitation or vomiting
- managed, in line with ARC guidelines, the unconscious, non-breathing infant, including:
  - performing at least 2 minutes of uninterrupted single rescuer CPR (5 cycles both compressions and ventilations) on an infant resuscitation manikin placed on a firm surface
- managed casualties, with the following:
  - anaphylaxis
  - asthma
  - non-life-threatening bleeding
  - choking
  - envenomation, using pressure immobilisation
  - fractures, dislocations, sprains and strains, using appropriate immobilisation techniques
  - minor wound cleaning and dressing
  - nosebleed
  - shock

- responded to at least one simulated first aid incident contextualised to the candidate's workplace or community setting, where the candidate has no knowledge of the casualty's condition prior to starting treatment, including:
  - identifying the casualty's illness or injury through history, signs and symptoms
  - using personal protective equipment (PPE) as required
  - providing appropriate first aid treatment
  - conveying incident details to emergency services or advising casualty on any required post incident action
  - providing an accurate verbal and written report of the incident
  - reviewing the incident.

## Knowledge Evidence

Demonstrated knowledge required to complete the tasks outlined in elements and performance criteria of this unit:

- guidelines and procedures including:
  - ARC guidelines relevant to the provision of first aid
  - first aid guidelines from Australian national peak clinical bodies
  - potential incident hazards and risk minimisation processes when providing first aid
  - infection control procedures, including use of standard precautions and resuscitation barrier devices
  - requirements for currency of skill and knowledge
  - first aid codes of practice
  - appropriate workplace or site procedures relevant to the provision of first aid
  - contents of first aid kits
- legal, workplace and community considerations including:
  - duty of care requirements
  - own skills and limitations
  - consent and how it relates to the conscious and unconscious casualty
  - privacy and confidentiality requirements
  - awareness of potential need for stress management techniques and available support for rescuers
- considerations when providing CPR, including:
  - upper airway and effect of positional change
  - appropriate duration and cessation of CPR
  - appropriate use of an AED
  - safety and maintenance procedures for an AED
  - chain of survival
  - how to access emergency services
- techniques for providing CPR to adults, children and infants including:
  - how to recognise that a casualty is unconscious and not breathing normally

- rate, ratio and depth of compressions and ventilations
- correct hand positioning for compressions
- basic anatomy, physiology and the differences between adults, children and infants relating to CPR
- signs, symptoms and management of the following conditions and injuries:
  - allergic reaction
  - anaphylaxis
  - asthma
  - non-life-threatening and life-threatening bleeding
  - burns
  - cardiac conditions, including chest pain
  - choking
  - diabetes
  - drowning
  - envenomation - all current treatments
  - eye injuries
  - fractures, dislocations, strains and sprains
  - head, neck and spinal injuries
  - hypothermia
  - hyperthermia
  - minor wounds
  - nose-bleed
  - poisoning
  - seizures
  - shock
  - sharps injuries
  - stroke.

## Assessment Conditions

Each candidate to demonstrate skills in an environment that provides realistic in-depth, scenarios and simulations to assess candidates' skills and knowledge.

Due to the nature of this type of training, it is acceptable for the performance evidence to be collected in a simulated environment.

Compression and ventilation skills must be demonstrated on resuscitation manikins following ARC guidelines for the purpose of assessment of CPR procedures.

Assessment must ensure access to:

- adult and infant resuscitation manikins following ARC guidelines for the purpose of assessment of CPR procedures
- adrenaline auto-injector training device

- AED training devices
- workplace first aid kit
- placebo bronchodilator and spacer device
- different types of wound dressings and bandages
- blankets and items to treat for shock
- personal protective equipment (PPE)
- workplace injury, trauma or illness record, or other applicable workplace or site incident report form.

Simulated assessment environments must simulate real-life situations where these skills and knowledge would be performed, with all the relevant equipment and resources of that workplace or community environment.

Assessors must satisfy the Standards for Registered Training Organisations' requirements for assessors and must hold this unit or demonstrate equivalent skills and knowledge to that contained within this unit.

## Links

Companion Volume implementation guides are found in VETNet -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=ced1390f-48d9-4ab0-bd50-b015e5485705>

## MEM09002B Interpret technical drawing

### Modification History

Not Applicable

### Unit Descriptor

<b>Unit descriptor</b>	This unit covers interpreting technical drawing applying to any of the full range of engineering disciplines.
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### Application of the Unit

<b>Application of the unit</b>	<p>Technical drawings may utilise perspective, exploded views or hidden view techniques. Drawings are provided to Australian Standard 1100 and/or Australian Standard 1102 and their equivalents from the full range of engineering disciplines.</p> <p>Standard symbols to Australian Standard 1100 and/or Australian Standard 1102 or equivalent are recognised in field of employment. Technical drawings may include symbol glossaries.</p> <p>Where any drawing, sketch, chart, diagram is only used as the technique for communication, then this unit does not apply: see Unit MEM12023A (perform engineering measurements) or Unit MEM16006A (Organise and communicate information).</p> <p><b>Band: A</b></p> <p><b>Unit Weight: 4</b></p>
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### Licensing/Regulatory Information

Not Applicable

## Pre-Requisites

<b>Prerequisite units</b>		

## Employability Skills Information

<b>Employability skills</b>	This unit contains employability skills.
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## Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.	Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.
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## Elements and Performance Criteria

<b>ELEMENT</b>	<b>PERFORMANCE CRITERIA</b>
1. Select correct technical drawing	1.1. Drawing is checked and validated against job requirements or equipment. 1.2. Drawing version is checked and validated.
2. Interpret technical drawing	2.1. Components, assemblies or objects are recognised as required. 2.2. Dimensions are identified as appropriate to field of employment. 2.3. Instructions are identified and followed as required. 2.4. Material requirements are identified as required. 2.5. Symbols are recognised in the drawing as appropriate.

## Required Skills and Knowledge

### REQUIRED SKILLS AND KNOWLEDGE

This section describes the skills and knowledge required for this unit.

#### Required skills

Look for evidence that confirms skills in:

- checking the drawing against job requirements/related equipment in accordance with standard operating procedures
- confirming the drawing version as being current in accordance with standard operating procedures
- where appropriate, obtaining the current version of the drawing in accordance with standard operating procedures
- reading, interpreting information on the drawing, written job instructions, specifications, standard operating procedures, charts, lists and other applicable reference documents
- checking and clarifying task related information
- undertaking numerical operations, geometry and calculations/formulae within the scope of this unit

#### Required knowledge

Look for evidence that confirms knowledge of:

- application of AS1100.101 in accordance with standard operating procedures
- relationship between the views contained in the drawing
- objects represented in the drawing
- units of measurement used in the preparation of the drawing
- dimensions of the key features of the objects depicted in the drawing
- understanding of the instructions contained in the drawing
- the actions to be undertaken in response to those instructions
- the materials from which the object(s) are made
- any symbols used in the drawing as described in range statement
- hazard and control measures associated with interpreting technical drawings, including housekeeping
- safe work practices and procedures



## Evidence Guide

### EVIDENCE GUIDE

The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.

<b>Overview of assessment</b>	A person who demonstrates competency in this unit must be able to interpret technical drawings as described.
<b>Critical aspects for assessment and evidence required to demonstrate competency in this unit</b>	Assessors must be satisfied that the candidate can competently and consistently perform all elements of the unit as specified by the criteria, including required knowledge, and be capable of applying the competency in new and different situations and contexts.
<b>Context of and specific resources for assessment</b>	<p>This unit may be assessed on the job, off the job or a combination of both on and off the job. Where assessment occurs off the job, that is the candidate is not in productive work, then an appropriate simulation must be used where the range of conditions reflects realistic workplace situations. The competencies covered by this unit would be demonstrated by an individual working alone or as part of a team. The assessment environment should not disadvantage the candidate.</p> <p>This unit could be assessed in conjunction with any other units addressing the safety, quality, communication, materials handling, recording and reporting associated with interpreting technical drawings or other units requiring the exercise of the skills and knowledge covered by this unit.</p>
<b>Method of assessment</b>	Assessors should gather a range of evidence that is valid, sufficient, current and authentic. Evidence can be gathered through a variety of ways including direct observation, supervisor's reports, project work, samples and questioning. Questioning should not require language, literacy and numeracy skills beyond those required in this unit. The candidate must have access to all tools, equipment, materials and documentation required. The candidate must be permitted to refer to any relevant workplace procedures, product and manufacturing specifications, codes, standards, manuals and reference materials.
<b>Guidance information for assessment</b>	

## Range Statement

### RANGE STATEMENT

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.

#### Interpret technical drawing

AS1100.101 is an extensive work and the candidate is not required to have complete familiarity with all its contents, the application of AS1100 would usually be in line with standard operating procedures; interpretation may require guidance particularly in respect to any geometric tolerancing

## Unit Sector(s)

### Unit sector

## Co-requisite units

### Co-requisite units

## Competency field

Competency field	Drawing, drafting and design
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## MEM12023A Perform engineering measurements

### Modification History

Not Applicable

### Unit Descriptor

<b>Unit descriptor</b>	This unit covers performing measurement skills requiring straightforward use of mechanical measuring devices and associated calculations.
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### Application of the Unit

<b>Application of the unit</b>	<p>This unit covers straightforward measurement using devices which incorporate visual indications representing units of measurement.</p> <p>It applies to the use of measuring devices in a range of manufacturing, engineering and related environments. It includes, where required, adjustment of measuring devices through simple means and typically includes zeroing or scale adjustment.</p> <p>Measurements may be expressed in metric or imperial units. All measurements are undertaken to standard operating procedures. Electrical/electronic devices used are those not requiring the connection or disconnection of circuitry.</p> <p>Work is undertaken autonomously or part of team environment, in the field, work station or workshops.</p> <p>For straightforward use of comparison or pre-set measuring devices, Unit MEM12001B (Use comparison and basic measuring devices) should be accessed.</p> <p><b>Band: A</b></p> <p><b>Unit Weight: 5</b></p>
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## Licensing/Regulatory Information

Not Applicable

## Pre-Requisites

<b>Prerequisite units</b>		

## Employability Skills Information

<b>Employability skills</b>	This unit contains employability skills.
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## Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.	Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.
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## Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Select appropriate device or equipment	1.1.Measurement requirements are determined from specifications. 1.2.Appropriate device or equipment is selected according to standard operating procedures, to achieve required outcome.
2. Obtain measurements using a range of measuring devices	2.1.Correct and appropriate measuring technique is used. 2.2.Measurements are accurately obtained .

ELEMENT	PERFORMANCE CRITERIA
	2.3. Dimensions are determined or verified using basic calculations, where required.
3. Maintain measuring devices	3.1. Routine care and storage of devices is undertaken to manufacturers' specifications or standard operating procedures. 3.2. Routine adjustments to devices are made and checked.
4. Communicate measurements as required	4.1. Measurements are accurately recorded, where required. 4.2. Freehand sketch which depicts required information is prepared, as required.

## Required Skills and Knowledge

### REQUIRED SKILLS AND KNOWLEDGE

This section describes the skills and knowledge required for this unit.

#### Required skills

Look for evidence that confirms skills in:

- selecting the appropriate measuring device for given measuring tasks
- using appropriate measuring technique
- reading all measurements taken accurately to the finest graduation of the selected measuring device
- handling and storing measuring devices in accordance with manufacturers' specifications or standard operating procedures
- verifying all measuring devices before use
- making, where appropriate, routine adjustments to measuring devices
- reading, interpreting and following information on written job instructions, specifications, standard operating procedures, charts, lists, drawings and other applicable reference documents
- planning and sequencing operations
- checking and clarifying task related information
- checking for conformance to specifications
- undertaking numerical operations involving addition, subtraction, multiplication, division, fractions and decimals within the scope of this unit
- preparing drawings as required

## REQUIRED SKILLS AND KNOWLEDGE

### Required knowledge

Look for evidence that confirms knowledge of:

- correct application of a range of measuring devices
- correct and appropriate measuring technique for a range of measuring devices
- addition, subtraction, multiplication, division, fractions, decimals to the scope required by this unit
- procedures for handling and storing a range of measuring devices
- procedures for adjusting and zeroing a range of measuring devices
- methods of communicating measurements by drawings, as required
- safe work practices and procedures

## Evidence Guide

### EVIDENCE GUIDE

The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.

#### Overview of assessment

A person who demonstrates competency in this unit must be able to perform engineering measurements.

#### Critical aspects for assessment and evidence required to demonstrate competency in this unit

Assessors must be satisfied that the candidate can competently and consistently perform all elements of the unit as specified by the criteria, including required knowledge, and be capable of applying the competency in new and different situations and contexts.

#### Context of and specific resources for assessment

This unit may be assessed on the job, off the job or a combination of both on and off the job. Where assessment occurs off the job, that is the candidate is not in productive work, then an appropriate simulation must be used where the range of conditions reflects realistic workplace situations. The competencies covered by this unit would be demonstrated by an individual working alone or as part of a team. The assessment environment should not disadvantage the candidate.

This unit could be assessed in conjunction with any other units addressing the safety, quality, communication,

<b>EVIDENCE GUIDE</b>	
	materials handling, recording and reporting associated with performing engineering measurements or other units requiring the exercise of the skills and knowledge covered by this unit.
<b>Method of assessment</b>	Assessors should gather a range of evidence that is valid, sufficient, current and authentic. Evidence can be gathered through a variety of ways including direct observation, supervisor's reports, project work, samples and questioning. Questioning techniques should not require language, literacy and numeracy skills beyond those required in this unit of competency. The candidate must have access to all tools, equipment, materials and documentation required. The candidate must be permitted to refer to any relevant workplace procedures, product and manufacturing specifications, codes, standards, manuals and reference materials.
<b>Guidance information for assessment</b>	

## Range Statement

<b>RANGE STATEMENT</b>	
The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.	
<b>Specifications</b>	Drawings, sketches, job instructions, schematics, diagrams, technical manuals
<b>Range of measuring devices</b>	Protractors, combination squares, set squares, dial indicators, thermometers, tapes, rules, micrometers, vernier-scaled measuring equipment
<b>Basic calculations</b>	Calculations needed to assist in determining measurements where a reading of the graduated device is not sufficient, for example subtracting one measurement from another to give a third



<b>RANGE STATEMENT</b>	
	measurement. Examples of calculations needed are addition, subtraction, multiplication, division, fractions and decimals. Calculations may be made using a calculator
<b>Routine adjustments</b>	Validating the device using simple zeroing or scale adjustment
<b>Measurements</b>	Measuring length, squareness, flatness, angle, roundness, clearances or any other measurements that can be read off analog, digital or other measuring device
<b>Information</b>	Dimensions, instructions, base line or datum points

## Unit Sector(s)

<b>Unit sector</b>	
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## Co-requisite units

<b>Co-requisite units</b>		

## Competency field

<b>Competency field</b>	Measurement
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# MEM13003B Work safely with industrial chemicals and materials

## Modification History

Not Applicable

## Unit Descriptor

<b>Unit descriptor</b>	This unit covers using personal protective equipment (PPEs), identifying the particular hazards and emergency procedures, and observing safe working practices in that environment.
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## Application of the Unit

<b>Application of the unit</b>	<p>This unit may be applied in a workplace in which materials and chemicals which are subject to codes and regulations are stored and used, for example, chemicals, solvents, dangerous materials, acids, noxious waste products etc.</p> <p>Evidence of competency is to encompass the satisfactory application of current State/Territory OHS legislation, standards and codes of practice, and the hierarchy of hazard control measures with elimination, substitution, isolation and engineering control measures being selected before safe work practices and PPEs.</p> <p>This unit describes the competencies which are beyond those safety requirements normally applied in the workplace as described in Unit MEM13014A (Apply principles of occupational health and safety in the work environment) or specifically described in individual units such as welding.</p> <p><b>Band: A</b></p> <p><b>Unit Weight: 2</b></p>
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## Licensing/Regulatory Information

Not Applicable

## Pre-Requisites

<b>Prerequisite units</b>		

## Employability Skills Information

<b>Employability skills</b>	This unit contains employability skills.
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## Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.	Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.
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## Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Use personal protective equipment	1.1. Correct and appropriate safety clothing including personal protective equipment is selected and used correctly based on information in relevant material safety data sheet (MSDS).
2. Identify emergency procedures	2.1. Emergency procedures and plan relevant to the particular work environment are documented, understood and demonstrated as laid down in approved safety instructions.

ELEMENT	PERFORMANCE CRITERIA
3. Observe safe working practices	<p>3.1. Hazardous areas and materials are identified and special handling procedures are identified and understood.</p> <p>3.2. Permits to work (if necessary) are obtained.</p> <p>3.3. All equipment and hazardous materials are used in accordance with relevant OHS legislation, manufacturers' instructions and standard operating procedures.</p> <p>3.4. All site-specific safety policies, safety signs, symbols and labels are correctly identified and understood.</p> <p>3.5. Material safety data sheets are understood and applied.</p> <p>3.6. Safe manual handling procedures (including equipment) are used.</p> <p>3.7. Decanted chemicals and storage is to State/Territory dangerous goods and OHS legislation and requirements.</p> <p>3.8. Housekeeping duties are performed according to standard operating procedures to maintain a safe working environment.</p>

## Required Skills and Knowledge

### REQUIRED SKILLS AND KNOWLEDGE

This section describes the skills and knowledge required for this unit.

#### Required skills

Look for evidence that confirms skills in:

- undertaking risk assessment
- communicating with others
- performing proper manual handling techniques
- interpreting safety signage, labelling and placarding

#### Required knowledge

Look for evidence that confirms knowledge of:

- dangerous goods classification and labelling/placarding
- testing, use and maintenance of PPE

**REQUIRED SKILLS AND KNOWLEDGE**

- inherent hazardous properties of the chemicals to be used
- interpretation of the relevant MSDS
- basic fire fighting procedures
- site-specific emergency plan procedures
- chemical spill confinement procedures
- dangerous occurrence (near miss) reporting procedures
- hierarchy of control

**Evidence Guide****EVIDENCE GUIDE**

The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.

**Overview of assessment**

A person who demonstrates competency in this unit must be able to work safely and efficiently with various chemicals.

**Critical aspects for assessment and evidence required to demonstrate competency in this unit**

Assessors must be satisfied that the candidate can competently and consistently perform all elements of the unit as specified by the criteria, including required knowledge, and be capable of applying the competency in new and different situations and contexts.

**Context of and specific resources for assessment**

This unit may be assessed on the job, off the job or a combination of both on and off the job. Where assessment occurs off the job, that is the candidate is not in productive work, then an appropriate simulation must be used where the range of conditions reflects realistic workplace situations. The competencies covered by this unit would be demonstrated by an individual working alone or as part of a team. The assessment environment should not disadvantage the candidate.

This unit could be assessed in conjunction with any other units addressing the safety, quality, communication, materials handling, recording and reporting associated with working safely with industrial chemicals and materials or other units requiring the exercise of the skills and knowledge covered by this unit.

**EVIDENCE GUIDE****Method of assessment**

Assessors should gather a range of evidence that is valid, sufficient, current and authentic. Evidence can be gathered through a variety of ways including direct observation, supervisor's reports, project work, samples and questioning. Questioning techniques should not require language, literacy and numeracy skills beyond those required in this unit of competency. The candidate must have access to all tools, equipment, materials and documentation required. The candidate must be permitted to refer to any relevant workplace procedures, product and manufacturing specifications, codes, standards, manuals and reference materials.

**Guidance information for assessment****Range Statement****RANGE STATEMENT**

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.

**Personal protective equipment**

Personal protective may include appropriate:

- goggles/face shields
- respirators
- air supplied or self-contained helmets
- safety boots, gloves and appropriate clothes/garments

**Safe working practices**

- Environment is inspected
- Hazards (and chemical reactive hazards) are assessed and controlled using hierarchy of hazard control
- Properly maintained PPE is available
- Emergency management plan is documented/understood

<b>RANGE STATEMENT</b>	
	<ul style="list-style-type: none"> <li>Work to be undertaken in safe 'thermal' environments and all possible ignition sources are to be identified and controlled</li> </ul>
<b>Storage</b>	All storage containers (minor quantities and in consumer packages) are suitable for chemical exposure and are properly labelled and/or placarded. Chemical manifests are updated at completion of work activity
<b>State or Territory legislative requirements</b>	Appropriate OHS, dangerous goods acts and regulations, Australian standards, Australian Code for the Transport of Dangerous Goods by Road and Rail (ADGC), NOHSC codes of practice

## Unit Sector(s)

<b>Unit sector</b>	
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## Co-requisite units

<b>Co-requisite units</b>		

## Competency field

<b>Competency field</b>	Occupational health and safety
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## MEM15001B Perform basic statistical quality control

### Modification History

Not Applicable

### Unit Descriptor

<b>Unit descriptor</b>	This unit covers taking samples and applying a statistical process to monitor production.
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### Application of the Unit

<b>Application of the unit</b>	<p>This unit applies to the collation and interpretation of statistical data in the context of statistical quality control, for example, tally, run or control charts. Uncontrolled variations are reported to appropriate authority.</p> <p>When the production and interpretation of charts and graphs not dependent on knowledge and understanding of the implications for quality are required, Unit MEM12024A (Perform computations) should be accessed.</p> <p><b>Band: A</b></p> <p><b>Unit Weight: 2</b></p>
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### Licensing/Regulatory Information

Not Applicable

### Pre-Requisites

<b>Prerequisite units</b>		



## Employability Skills Information

<b>Employability skills</b>	This unit contains employability skills.
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## Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.	Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.
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## Elements and Performance Criteria

<b>ELEMENT</b>	<b>PERFORMANCE CRITERIA</b>
1. Take samples	1.1. Difference between population and sample is understood and various sampling schemes are applied in accordance with standard operating procedures.
2. Apply statistical process to monitor production	2.1. Concept of variation in terms of average and spread is understood. Data is used to produce relevant statistical information. 2.2. Data is interpreted accurately and information is presented to appropriate authority according to standard operating procedures.

## Required Skills and Knowledge

<b>REQUIRED SKILLS AND KNOWLEDGE</b>
This section describes the skills and knowledge required for this unit.

## REQUIRED SKILLS AND KNOWLEDGE

### Required skills

Look for evidence that confirms skills in:

- reading, interpreting and following information on written job instructions, standard operating procedures, charts, lists, drawings and other applicable reference documents
- applying statistical process control procedures in accordance with instructions to a given production process
- obtaining data from samples including average, range and random or assignable causes
- producing tally, run or control charts from sampling data
- reporting information from sampling data
- checking and clarifying task-related information
- completing proformas and standard workplace forms

### Required knowledge

Look for evidence that confirms knowledge of:

- the difference between population and sample, and the concept of variation in terms of average and range, random and assignable causes
- numerical operations and statistical calculations/formulae within the scope of this unit
- statistical process control procedures, which may include Six Sigma etc. and the sampling procedures to be followed
- the types of charts that can be produced to assist monitoring of products including run charts, tally charts, histograms, control charts
- procedures for reporting sample data information
- use and application of personal protective equipment
- safe work practices and procedures

## Evidence Guide

### EVIDENCE GUIDE

The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.

#### Overview of assessment

A person who demonstrates competency in this unit must

<b>EVIDENCE GUIDE</b>	
	be able to perform basic statistical quality control.
<b>Critical aspects for assessment and evidence required to demonstrate competency in this unit</b>	Assessors must be satisfied that the candidate can competently and consistently perform all elements of the unit as specified by the criteria, including required knowledge, and be capable of applying the competency in new and different situations and contexts.
<b>Context of and specific resources for assessment</b>	<p>This unit may be assessed on the job, off the job or a combination of both on and off the job. Where assessment occurs off the job, that is the candidate is not in productive work, then an appropriate simulation must be used where the range of conditions reflects realistic workplace situations. The competencies covered by this unit would be demonstrated by an individual working alone or as part of a team. The assessment environment should not disadvantage the candidate.</p> <p>This unit could be assessed in conjunction with any other units addressing the safety, quality, communication, materials handling, recording and reporting associated with performing basic statistical quality control or other units requiring the exercise of the skills and knowledge covered by this unit.</p>
<b>Method of assessment</b>	Assessors should gather a range of evidence that is valid, sufficient, current and authentic. Evidence can be gathered through a variety of ways including direct observation, supervisor's reports, project work, samples and questioning. Questioning techniques should not require language, literacy and numeracy skills beyond those required in this unit of competency. The candidate must have access to all tools, equipment, materials and documentation required. The candidate must be permitted to refer to any relevant workplace procedures, product and manufacturing specifications, codes, standards, manuals and reference materials.
<b>Guidance information for assessment</b>	

## Range Statement

### RANGE STATEMENT

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.

<b>Sampling schemes</b>	Agreed customer plans, Acceptable Quality Level (AQL) and Average Outgoing Quality Level (AOQL) plans, Shainin, Six Sigma etc.
<b>Relevant statistical information</b>	Average, range and process control data and the plotting of charts such as line graphs, run charts, tally charts, histograms, control charts, random and assignable causes etc.

## Unit Sector(s)

<b>Unit sector</b>	
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## Co-requisite units

<b>Co-requisite units</b>	

## Competency field

<b>Competency field</b>	Quality
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## MEM18001C Use hand tools

### Modification History

Not Applicable

### Unit Descriptor

<b>Unit descriptor</b>	This unit covers using a range of hand tools for a variety of general engineering applications.
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### Application of the Unit

<b>Application of the unit</b>	<p>Applications may include hand tools used for adjusting, dismantling, assembling and finishing of items or components, and the finishing, cutting, scraping of metallic and non-metallic material to size and shape. This includes simple tapping and threading and routine maintenance of hand tools.</p> <p>This unit should not be selected if the hand tool is dedicated to a single operation or machine and if only a machine specific/customised tool is used.</p> <p>When using hand held power tools or power tools used for hand held operations, refer to Unit MEM18002B (Use power tools/hand held operations).</p> <p><b>Band: A</b></p> <p><b>Unit Weight: 2</b></p>
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### Licensing/Regulatory Information

Not Applicable

## Pre-Requisites

<b>Prerequisite units</b>	

## Employability Skills Information

<b>Employability skills</b>	This unit contains employability skills.
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## Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.	Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.
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## Elements and Performance Criteria

<b>ELEMENT</b>	<b>PERFORMANCE CRITERIA</b>
1. Use hand tools	<ul style="list-style-type: none"><li>1.1. Hand tools are selected appropriate to the task requirements.</li><li>1.2. Hand tools are used to produce desired outcomes to job specifications which may include finish, tension, size or shape.</li><li>1.3. All safety requirements are adhered to before, during and after use.</li><li>1.4. Unsafe or faulty tools are identified and marked for repair according to designated procedures before, during and after use.</li><li>1.5. Routine maintenance of tools, including hand sharpening is undertaken according to standard</li></ul>

ELEMENT	PERFORMANCE CRITERIA
	operational procedures, principles and techniques. 1.6. Hand tools are stored safely in appropriate location according to standard operational procedures and manufacturers' recommendations.

## Required Skills and Knowledge

### REQUIRED SKILLS AND KNOWLEDGE

This section describes the skills and knowledge required for this unit.

#### Required skills

Look for evidence that confirms skills in:

- reading and following information on standard operating procedures
- following verbal instructions
- selecting hand tools appropriate to the task
- using hand tools safely
- identifying hand tool defects and marking for repair
- maintaining/sharpening hand tools using appropriate techniques
- storing hand tools in accordance with manufacturers'/standard operating procedures

#### Required knowledge

Look for evidence that confirms knowledge of:

- applications of different hand tools in a general engineering context
- common faults and/or defects in hand tools
- procedures for marking unsafe or faulty tools for repair
- routine maintenance requirements for a range of hand tools
- storage location and procedures for a range of hand tools
- hazards and control measures associated with using hand tools
- use and application of personal protective equipment
- safe work practices and procedures



## Evidence Guide

<b>EVIDENCE GUIDE</b>	
The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.	
<b>Overview of assessment</b>	A person who demonstrates competency in this unit must be able to use hand tools for a range of general engineering applications.
<b>Critical aspects for assessment and evidence required to demonstrate competency in this unit</b>	Assessors must be satisfied that the candidate can competently and consistently perform all elements of the unit as specified by the criteria, including required knowledge, and be capable of applying the competency in new and different situations and contexts.
<b>Context of and specific resources for assessment</b>	<p>This unit may be assessed on the job, off the job or a combination of both on and off the job. Where assessment occurs off the job, that is the candidate is not in productive work, then an appropriate simulation must be used where the range of conditions reflects realistic workplace situations. The competencies covered by this unit would be demonstrated by an individual working alone or as part of a team. The assessment environment should not disadvantage the candidate.</p> <p>This unit could be assessed in conjunction with any other units addressing the safety, quality, communication, materials handling, recording and reporting associated with using hand tools or other units requiring the exercise of the skills and knowledge covered by this unit.</p>
<b>Method of assessment</b>	Assessors should gather a range of evidence that is valid, sufficient, current and authentic. Evidence can be gathered through a variety of ways including direct observation, supervisor's reports, project work, samples and questioning. Questioning techniques should not require language, literacy and numeracy skills beyond those required in this unit of competency. The candidate must have access to all tools, equipment, materials and documentation required. The candidate must be permitted to refer to any relevant workplace procedures, product and manufacturing specifications, codes, standards, manuals and reference materials.
<b>Guidance information for assessment</b>	

## Range Statement

RANGE STATEMENT	
<p>The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.</p>	
<b>Hand tools</b>	Hacksaws, hammers, punches, screwdrivers, sockets, wrenches, scrapers, chisels, gouges, wood planes and files of all cross-sectional shapes and types
<b>Job specifications</b>	Finish, tension, size or shape etc.
<b>Routine maintenance</b>	Cleaning, lubricating, tightening, simple tool repairs, hand sharpening and adjustments using engineering principles, tools, equipment and procedures

## Unit Sector(s)

<b>Unit sector</b>	
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## Co-requisite units

<b>Co-requisite units</b>		

## Competency field

Competency field	Maintenance and diagnostics
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## MEM18002B Use power tools/hand held operations

### Modification History

Not Applicable

### Unit Descriptor

<b>Unit descriptor</b>	This unit covers using a range of hand held power tools and fixed power tools for hand held operations for a variety of general engineering applications.
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### Application of the Unit

<b>Application of the unit</b>	<p>This unit applies to loosening and fastening items or components and shaping, finishing, cutting, grinding metallic and non-metallic materials and/or tool bits to size and shape.</p> <p>This unit should not be selected if the power tools used are dedicated to an operation or machine, e.g. nut-runner, air drill, power driver, etc.</p> <p>For using hand tools, see Unit MEM18001C (Use hand tools).</p> <p><b>Band: A</b></p> <p><b>Unit Weight: 2</b></p>
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### Licensing/Regulatory Information

Not Applicable

### Pre-Requisites

<b>Prerequisite units</b>	
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<b>Prerequisite units</b>	

## Employability Skills Information

<b>Employability skills</b>	This unit contains employability skills.
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## Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.	Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.
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## Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Use power tools	<ul style="list-style-type: none"><li>1.1. Power tools are selected appropriate to the task requirements.</li><li>1.2. Power tools are used for a determined sequence of operations - which may include clamping, alignment and adjustment to produce desired outcomes - to job specifications which may include finish, size or shape.</li><li>1.3. All safety requirements are adhered to before, during and after use.</li><li>1.4. Unsafe or faulty tools are identified and marked for repair before, during and after use according to designated procedures.</li><li>1.5. Operational maintenance of tools, including hand sharpening, is undertaken according to standard</li></ul>

ELEMENT	PERFORMANCE CRITERIA
	<p>workplace procedures, principles and techniques.</p> <p>1.6. Power tools are stored safely in appropriate location according to standard workshop procedures and manufacturers' recommendations.</p>

## Required Skills and Knowledge

### REQUIRED SKILLS AND KNOWLEDGE

This section describes the skills and knowledge required for this unit.

#### Required skills

Look for evidence that confirms skills in:

- reading and following information on standard operating procedures
- following verbal instructions
- selecting power tools appropriate to the task
- using power tools safely
- using clamping/securing devices
- identifying power tool defects
- maintaining power tools using appropriate techniques
- sharpening tools/tool bits within the scope of this unit
- storing power tools according to manufacturers'/ standard operating procedures.

#### Required knowledge

Look for evidence that confirms knowledge of:

- application of different power tools
- clamping/securing methods
- adjustments/alignments to a range of power tools
- common faults and/or defects in power tools
- procedures for marking unsafe or faulty power tools for repair
- routine maintenance requirements of a range of power tools
- tool sharpening techniques for a range of power tools
- storage location and procedures of a range of power tools
- hazards/control measures associated with power tools
- use and application of personal protective equipment
- safe work practices and procedures

## Evidence Guide

<b>EVIDENCE GUIDE</b>	
The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.	
<b>Overview of assessment</b>	A person who demonstrates competency in this unit must be able to use power tools/hand held operations.
<b>Critical aspects for assessment and evidence required to demonstrate competency in this unit</b>	Assessors must be satisfied that the candidate can competently and consistently perform all elements of the unit as specified by the criteria, including required knowledge, and be capable of applying the competency in new and different situations and contexts.
<b>Context of and specific resources for assessment</b>	<p>This unit may be assessed on the job, off the job or a combination of both on and off the job. Where assessment occurs off the job, that is the candidate is not in productive work, then an appropriate simulation must be used where the range of conditions reflects realistic workplace situations. The competencies covered by this unit would be demonstrated by an individual working alone or as part of a team. The assessment environment should not disadvantage the candidate.</p> <p>This unit could be assessed in conjunction with any other units addressing the safety, quality, communication, materials handling, recording and reporting associated with using power tools/hand held operations or other units requiring the exercise of the skills and knowledge covered by this unit.</p>
<b>Method of assessment</b>	Assessors should gather a range of evidence that is valid, sufficient, current and authentic. Evidence can be gathered through a variety of ways including direct observation, supervisor's reports, project work, samples and questioning. Questioning should not require language, literacy and numeracy skills beyond those required in this unit. The candidate must have access to all tools, equipment, materials and documentation required. The candidate must be permitted to refer to any relevant workplace procedures, product and manufacturing specifications, codes, standards, manuals and reference materials.

**EVIDENCE GUIDE****Guidance information for assessment****Range Statement****RANGE STATEMENT**

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.

**Power tools**

Electric or pneumatic/hydraulic drills, grinders, jigsaws, nibblers, cutting saws, sanders, planers, routers, pedestal drills and pedestal grinders

**Clamping**

Multigrips, vices, jigs and fixtures, clamps etc.

**Job specifications**

Finish, size or shape etc.

**Operational maintenance**

Hand sharpening, cleaning, lubricating, tightening  
Simple tool repairs and adjustments using engineering principles, tools, equipment and procedures to statutory and regulatory requirements

**Unit Sector(s)****Unit sector**



## Co-requisite units

Co-requisite units		

## Competency field

Competency field	Maintenance and diagnostics
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# MEM18055B Dismantle, replace and assemble engineering components

## Modification History

Not Applicable

## Unit Descriptor

<b>Unit descriptor</b>	This unit covers dismantling and identifying faulty components, selecting replacements, and assembling engineering components into assemblies or sub-assemblies in accordance with standard operating procedures.
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## Application of the Unit

<b>Application of the unit</b>	<p>This unit involves dismantling, checking, replacing and assembling engineering components in accordance with standard operating procedures.</p> <p>All specifications are interpreted from manufacturers' manuals, engineering drawings, detailed/technical sketches and associated data sheets. Tasks are undertaken utilising engineering principles, designated procedures, appropriate tools, equipment and safe workshop practices.</p> <p>Work is undertaken autonomously or in a team environment using predetermined standards of quality, safety and workshop procedures.</p> <p>Where fitting techniques and principles are required to assess component condition, and/or modify components to achieve precision fits, unit MEM18006C (Repair and fit engineering components) should also be selected.</p> <p>Where precision mechanical measurement is required, then Unit MEM12003B (Perform precision mechanical measurement) should also be selected.</p> <p><b>Band: A</b></p> <p><b>Unit Weight: 3</b></p>
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## Licensing/Regulatory Information

Not Applicable

## Pre-Requisites

Prerequisite units		
Path 1	MEM09002B	Interpret technical drawing
	MEM12023A	Perform engineering measurements
	MEM18001C	Use hand tools
	MEM18002B	Use power tools/hand held operations

## Employability Skills Information

Employability skills	This unit contains employability skills.
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## Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.	Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.
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## Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Dismantle engineering	1.1.Engineering components are inspected and task

ELEMENT	PERFORMANCE CRITERIA
components	requirements are analysed. 1.2. Appropriate tools and equipment are selected and component/s are prepared for dismantling. 1.3. Component is dismantled using standard operating procedures, tools and equipment. 1.4. Engineering components are clearly marked to aid reassembly.
2. Identify faulty components	2.1. Specifications for components are obtained from appropriate source and are interpreted and understood. 2.2. Damaged or faulty components are assessed against specifications according to standard operating procedures. 2.3. Faulty components are identified for repair, replacement or adjustment according to standard operating procedures.
3. Select replacement components	3.1. Where applicable, replacement and/or repaired parts are selected for reassembly according to standard operating procedures.
4. Assemble engineering components into assemblies or sub-assemblies	4.1. Appropriate techniques are applied in the preparation, assembly and adjustment of components using fastening equipment and methods which ensure conformance to specifications, operational performance, quality and safety of the completed assembly according to standard operating procedures. 4.2. Correct lubrication, packing, sealing materials are selected and applied correctly in conformance to job specifications. 4.3. Final component assembly is inspected, tested and adjusted as necessary for compliance with operational specifications and returned to use according to standard operating procedures.

## Required Skills and Knowledge

### REQUIRED SKILLS AND KNOWLEDGE

This section describes the skills and knowledge required for this unit.

**REQUIRED SKILLS AND KNOWLEDGE****Required skills**

Look for evidence that confirms skills in:

- obtaining and interpreting all relevant instructions, standard operating procedures, drawings and specifications
- preparing component for dismantling
- dismantling components using appropriate techniques, tools and equipment
- marking component parts appropriately for identification purposes
- checking components visually and dimensionally for conformance to specification
- where appropriate, marking faulty parts for repair, replacement or adjustment
- selecting and confirming replacement parts to specifications
- obtaining and using all relevant supplier catalogues
- preparing and assembling components using appropriate techniques in accordance with standard operating procedures
- where appropriate, applying lubricants correctly to the assembly in accordance with specifications and standard operating procedures
- where appropriate, applying packing and/or sealing materials in accordance with specifications and standard operating procedures
- inspecting and checking the final assembly for conformance to specification
- where appropriate, returning the final assembly to use

**Required knowledge**

Look for evidence that confirms knowledge of:

- tasks to be performed in accordance with standard operating procedures
- procedures for dismantling the assembly
- tools and equipment to be used to dismantle the components
- procedures and required equipment for checking components for conformance to specification
- specifications of the components to be replaced
- features and/or dimensions upon which replacement parts are to be selected
- process of identifying replacement parts from "third party" suppliers' catalogues
- procedures for assembling components
- requirements of the assembly in terms of specifications, operational performance, quality and safety
- procedures for lubricating the assembly
- materials
- checks to be undertaken during inspection of the final assembly
- procedures for returning components/assemblies into use
- hazards and control measures associated with dismantling, replacing and assembling engineering components, including housekeeping

**REQUIRED SKILLS AND KNOWLEDGE**

- safe work practices and procedures

**Evidence Guide****EVIDENCE GUIDE**

The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.

**Overview of assessment**

A person who demonstrates competency in this unit must be able to dismantle, replace and assemble engineering components. Competency in this unit cannot be claimed until all prerequisites have been satisfied.

**Critical aspects for assessment and evidence required to demonstrate competency in this unit**

Assessors must be satisfied that the candidate can competently and consistently perform all elements of the unit as specified by the criteria, including required knowledge, and be capable of applying the competency in new and different situations and contexts.

**Context of and specific resources for assessment**

This unit may be assessed on the job, off the job or a combination of both on and off the job. Where assessment occurs off the job, that is the candidate is not in productive work, then an appropriate simulation must be used where the range of conditions reflects realistic workplace situations. The competencies covered by this unit would be demonstrated by an individual working alone or as part of a team. The assessment environment should not disadvantage the candidate.

This unit could be assessed in conjunction with any other units addressing the safety, quality, communication, materials handling, recording and reporting associated with dismantling, replacing and assembling engineering components or other units requiring the exercise of the skills and knowledge covered by this unit.

**Method of assessment**

Assessors should gather a range of evidence that is valid, sufficient, current and authentic. Evidence can be gathered through a variety of ways including direct observation, supervisor's reports, project work, samples and questioning. Questioning techniques should not

**EVIDENCE GUIDE**

	require language, literacy and numeracy skills beyond those required in this unit of competency. The candidate must have access to all tools, equipment, materials and documentation required. The candidate must be permitted to refer to any relevant workplace procedures, product and manufacturing specifications, codes, standards, manuals and reference materials.
<b>Guidance information for assessment</b>	

**Range Statement****RANGE STATEMENT**

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.

<b>Engineering components</b>	Includes a range of component parts found in equipment or product assemblies, sub-assemblies, e.g. couplings, universal joints, pumps etc. employing shafts, pre-manufactured bearings and seals, lubricants, fasteners, gaskets etc.
<b>Appropriate tools and equipment</b>	Includes a range of hand and power tools, bearing pullers, special purpose dismantling and assembly tools etc.
<b>Selected</b>	Replacement parts are selected from manufacturers' catalogues, etc.
<b>Appropriate techniques</b>	Are in accordance with standard operating procedures and may include the straightforward removal and replacement of pre-manufactured bearings and seals

## Unit Sector(s)

Unit sector	
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## Co-requisite units

Co-requisite units		

## Competency field

Competency field	Maintenance and diagnostics
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## MEM30011A Set up basic pneumatic circuits

### Modification History

Not Applicable

### Unit Descriptor

<b>Unit descriptor</b>	This unit covers setting up and selecting components associated with single linear pneumatic systems.
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### Application of the Unit

<b>Application of the unit</b>	<p>This unit applies to all engineering or manufacturing environments.</p> <p>The unit refers to simple pneumatic circuits containing single linear actuators.</p> <p>Work is carried out under supervision.</p> <p><b>Band: 0</b></p> <p><b>Unit Weight: 0</b></p>
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### Licensing/Regulatory Information

Not Applicable

### Pre-Requisites

<b>Prerequisite units</b>		

## Employability Skills Information

<b>Employability skills</b>	This unit contains employability skills.
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## Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.	Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.
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## Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Determine system requirements	1.1. Instructions regarding system requirements are obtained, understood and clarified as necessary. 1.2. Circuit drawings using standard symbols are interpreted correctly.
2. Select components for simple pneumatic circuits	2.1. Suitable air system components are selected for given fluid power systems from specification charts and in accordance with safety procedures involving compressed air. 2.2. Linear actuators are selected to suit system requirements. 2.3. Control valves are selected to suit system requirements.
3. Verify component selection	3.1. Circuits are set up and operated on laboratory benches. 3.2. Operation is analysed and outcomes are verified against system requirements.

## Required Skills and Knowledge

### REQUIRED SKILLS AND KNOWLEDGE

This section describes the skills and knowledge required for this unit.

#### Required skills

Look for evidence that confirms skills in:

- drawing pneumatic circuits
- testing operation of pneumatic circuits
- assessing performance
- calculating circuit requirements
- documenting circuit specifications and test results
- applying fluid power principles

#### Required knowledge

Look for evidence that confirms knowledge of:

- fluid power:
  - definition of the term fluid power
  - differences between pneumatic and hydraulic systems
  - advantages and disadvantages of fluid power when compared to mechanical and electric power systems
  - safety procedures when working with compressed air and associated equipment
- awareness of different components including:
  - air compressors
  - receivers, interlocks
  - pipes - rigid and flexible
  - valves - types and functions
  - filters - types and functions
  - gauges and instruments - pressure and temperature gauges, liquid level gauges, thermometers, thermocouples, manometers, piezometers
  - pipe fittings - elbows/bends
  - flow measurement instruments - venturi and orifice meters
  - air motors
  - linear actuators:
    - types, selection and functions
    - methods of supporting linear actuators
    - introduction to calculations related to linear actuators
    - recognition and drawing of standard symbols
    - observation and analysis of performance of linear actuators in laboratory circuits

**REQUIRED SKILLS AND KNOWLEDGE**

- control valves (hydraulic and pneumatic):
- directional controls and functions
- check valves and functions
- pressure controls and functions
- flow controls and functions
- recognition and drawing of standard symbols for control valves
- drawing and analysis of typical circuits containing control valves
- observation and analysis of performance of valves in basic circuits
- circuit design and analysis (single linear actuator):
  - drawing and analysis of circuit diagrams containing basic components
  - setting up and operating circuits on pneumatic and hydraulic benches in a fluid power laboratory

**Evidence Guide****EVIDENCE GUIDE**

The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.

**Overview of assessment**

A person who demonstrates competency in this unit must be able to set up basic pneumatic circuits.

**Critical aspects for assessment and evidence required to demonstrate competency in this unit**

Assessors must be satisfied that the candidate can competently and consistently perform all elements of the unit as specified by the criteria, including required knowledge, and be capable of applying the competency in new and different situations and contexts.

**Context of and specific resources for assessment**

This unit may be assessed on the job, off the job or a combination of both on and off the job. Where assessment occurs off the job, that is the candidate is not in productive work, then an appropriate simulation must be used where the range of conditions reflects realistic workplace situations. The competencies covered by this unit would be demonstrated by an individual working alone or as part of a team. The assessment environment should not disadvantage the candidate.

This unit could be assessed in conjunction with any other

<b>EVIDENCE GUIDE</b>	
	units addressing the safety, quality, communication, materials handling, recording and reporting associated with setting up basic pneumatic circuits or other units requiring the exercise of the skills and knowledge covered by this unit.
<b>Method of assessment</b>	Assessors should gather a range of evidence that is valid, sufficient, current and authentic. Evidence can be gathered through a variety of ways including direct observation, supervisor's reports, project work, samples and questioning. Questioning techniques should not require language, literacy and numeracy skills beyond those required in this unit of competency. The candidate must have access to all tools, equipment, materials and documentation required. The candidate must be permitted to refer to any relevant workplace procedures, product and manufacturing specifications, codes, standards, manuals and reference materials.
<b>Guidance information for assessment</b>	

## Range Statement

<b>RANGE STATEMENT</b>	
The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.	
<b>Safety procedures</b>	Following required precautions when using compressed air and when shutting down air compressors and receivers

## Unit Sector(s)

Unit sector	
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## Co-requisite units

Co-requisite units		

## Competency field

Competency field	Engineering technician
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## MSL904002 Perform standard calibrations

### Modification History

Release	Comments
Release 1	<p>This version was released in <i>MSL Laboratory Operations Training Package Release 2.0</i>.</p> <p>Supersedes and equivalent to MSL904001 Perform standard calibrations. Foundation skills information added. Range of conditions removed. Assessment requirements amended. Equivalent outcome.</p>

### Application

This unit of competency describes the skills and knowledge to calibrate test and measurement equipment in accordance with standard calibration procedures and documented test methods. These procedures/methods specify all associated reference standards, materials, equipment and methods to be used and the required parameters or quantities and ranges to be tested, including the criteria for rejection or approval.

This unit applies to laboratory and calibration technicians who carry out tests and/or calibrations using standard calibration methods in first, second and third party laboratories, and laboratories where testing and/or calibration forms part of inspection or product certification. Personnel are not permitted to deviate from explicit instructions in any manner, modify the procedure, nor substitute alternative equipment. They work under limited supervision and results of their work are interpreted and checked by the laboratory supervisor, quality inspector or designated signatory.

No licensing or certification requirements exist at the time of publication. However, regulations and/or external accreditation requirements for laboratory operations exist, so local requirements should be checked. Relevant legislation, industry standards and codes of practice within Australia must also be applied.

### Pre-requisite Unit

Nil

### Competency Field

Calibration

## Elements and Performance Criteria

Elements describe the essential outcomes.

Performance criteria describe the performance needed to demonstrate achievement of the element.

- |   |                                      |     |  |
|---|--------------------------------------|-----|--|
| 1 | <b>Prepare items for calibration</b> | 1.1 | Select the authorised calibration procedure in accordance with workplace procedures  |
|   |                                      | 1.2 | Identify hazards and use appropriate personal protective equipment (PPE), safety equipment and procedures                                |
|   |                                      | 1.3 | Confirm all measuring equipment meets the laboratory's specification requirements and complies fully with the calibration procedure      |
|   |                                      | 1.4 | Assemble and set up specified reference standards and associated equipment prior to testing  |
|   |                                      | 1.5 | Verify performance of reference standards and measuring equipment prior to use and adjust or calibrate as necessary                      |
|   |                                      | 1.6 | Identify and minimise potential sources of measurement error   |
|   |                                      |     |  |
| 2 | <b>Perform calibration</b>           | 2.1 | Perform individual tests without variance according to the documented procedure to ensure repeatability of measurement                   |
|   |                                      | 2.2 | Confirm readings are the result of a valid measurement and record data as required (as-found or before adjustment)                       |
|   |                                      | 2.3 | Adjust device under test to bring readings within specification and record data (as-left or after adjustment) where required             |
|   |                                      | 2.4 | Analyse resulting test data to detect trends or inconsistencies that would significantly affect the accuracy or validity of test results |
|   |                                      | 2.5 | Seek appropriate advice when interpretation of results is outside authorised scope of approval   |
|   |                                      |     |  |
| 3 | <b>Document results</b>              | 3.1 | Estimate and document uncertainty of measurement in accordance with workplace procedures, where required                                 |



Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
	<p>3.2 Document compliance/non-compliance with test requirements and/or specifications</p> <p>3.3 Record the results of each test/calibration accurately, unambiguously and objectively</p> <p>3.4 Ensure confidentiality of workplace information in accordance with workplace procedures</p>
4 <b>Finalise calibration</b>	<p>4.1 Prepare and issue a final report on the job/item detailing testing carried out, traceability, statement of compliance and relevant information</p> <p>4.2 Report any non-compliance and verify next course of action with supervisor</p> <p>4.3 Attach calibration labels, equipment stickers, quality control tags and tamper resistant seals as required in accordance with workplace procedures</p> <p>4.4 Store test equipment/measurement standards and results in accordance with workplace procedures</p>

## Foundation Skills

This section describes those language, literacy, numeracy and employment skills that are essential to performance.

- Numeracy skills to:
  - perform calculations to give results in appropriate accuracy, precision and units
  - use statistical analysis (means, ranges and standard deviations) and estimation of uncertainty of measurement.

Other foundation skills essential to performance are explicit in the performance criteria of this unit.

## Unit Mapping Information

Equivalent to MSL904001 Perform standard calibrations, Release 1.

## Links

MSL Laboratory Operations Companion Volume Implementation Guide is available from VETNet -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=5c63a03b-4a6b-4ae5-9560-1e3c5f462baa>

## Assessment Requirements for MSL904002 Perform standard calibrations

### Modification History

Release	Comments
Release 1	<p>This version was released in <i>MSL Laboratory Operations Training Package Release 2.0</i>.</p> <p>Supersedes and equivalent to MSL904001 Perform standard calibrations. Foundation skills information added. Range of conditions removed. Assessment requirements amended. Equivalent outcome.</p>

### Performance Evidence

There must be evidence the candidate has completed the tasks outlined in the elements and performance criteria of this unit, and:

- safely and accurately calibrated a minimum of 3 different items of test and/or measurement equipment from the following list:
  - balance
  - thermometer
  - thermocouple
  - pH meter
  - refractive index meter
  - viscosity meter
  - flow meter (including digital)
  - volumetric dispenser including auto-pipette (POVAs)
  - volumetric glass (once for life time)
  - spectrophotometer
  - incubator/oven/fridge
  - digestion block
  - biological safety cabinet
  - fume cupboard.

Calibrations must be carried out in accordance with standard calibration procedures and documented test methods.

### Knowledge Evidence

There must be evidence the candidate has knowledge of:

- purpose of metrology and calibration, including common terminology, concepts, principles, procedures and applications
- National Association of Testing Authority's (NATA) and National Measurement Institute's (NMI) role in the measurement and testing system in Australia and registration/licensing requirements
- requirements for the competence of testing and calibration laboratories (e.g. AS ISO/IEC 17025) as they affect job role and responsibilities
- Australian and international standards and codes covering requirements for the competence of testing and calibration laboratories
- standards imposed by regulatory and licensing bodies
- statistical analysis of quality control data, mean, median, mode, ranges and standard deviations
- hierarchy and appropriate selection of reference materials and instruments
- commonly used reference materials and working standards
- test equipment relevant to job role
- workplace procedures for:
  - non-conformance/non-compliance
  - equipment operation
  - calibration
  - troubleshooting for equipment and test methods
  - recording and reporting
  - handling, transport, storage and operation of reference and working standards
  - test methods and calibration (validated and authorised)
- different fields in which calibration work is conducted
- workplace and/or legal traceability requirements
- legal, ethical and work health and safety (WHS) requirements specific to the work task.

## Assessment Conditions

Skills must have been demonstrated in the workplace or in a simulated environment that reflects workplace conditions and contingencies. The following conditions must be met for this unit:

- use of suitable facilities, equipment and resources, including:
  - specialised calibration/test equipment, reference standards and laboratory facilities
  - calibration methods, procedures and equipment specifications
  - workplace quality manual and procedures.

Assessors must satisfy the NVR/AQTF mandatory competency requirements for assessors.

## Links

MSL Laboratory Operations Companion Volume Implementation Guide is available from VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=5c63a03b-4a6b-4ae5-9560-1e3c5f462baa>

## MSL912001 Work within a laboratory or field workplace (induction)

### Modification History

Release 1. Supersedes and is equivalent to MSL912001A Work within a laboratory/field workplace (induction)

### Application

This unit of competency covers the induction of an employee into scientific/technical work within a workplace.

This unit of competency is applicable to samplers/testers, production operators and field assistants working in all industry sectors.

While no specific licensing or certification requirements apply to this unit at the time of publication, laboratory operations are governed by relevant legislation, regulations and/or external accreditation requirements. Local requirements should be checked.

### Pre-requisite Unit

Nil

### Competency Field

Communication/organisation

### Unit Sector

### Elements and Performance Criteria

Elements describe the essential outcomes.

Performance criteria describe the performance needed to demonstrate achievement of the element.

1	<b>Work within workplace structure and culture</b>	1.1	Demonstrate broad knowledge of workplace business ethics, goals, products and/or scientific/technical services
		1.2	Identify key workplace sites and functions and their contribution to product range and quality

- |   |   |     |   |
|---|---|-----|---|
| 2 | <b>Work in accordance with workplace agreements and/or legislative requirements</b> | 2.1 | Locate key workplace information and apply it correctly   |
|   |   | 2.2 | Follow workplace policy and procedures relating to employment, security, confidentiality and reporting lines  |
|   |   | 2.3 | Perform all work activities in accordance with relevant environmental management procedures, including sustainability principles and work practices |
|   |   |     |   |
| 3 | <b>Provide scientific/technical support</b>   | 3.1 | Identify workplace roles and responsibilities of scientific/technical personnel   |
|   |   | 3.2 | Identify typical tasks and calendar of events in work area  |
|   |   | 3.3 | Recognise and locate the equipment and resources required for everyday work   |
|   |   | 3.4 | Interpret work instructions correctly and seek clarification if necessary   |
|   |   | 3.5 | Follow work instructions to perform scientific/technical tasks safely and efficiently   |
|   |   | 3.6 | Maintain own work area, equipment and materials in a safe and organised manner according to workplace policy and procedures                         |
|   |   |     |   |
| 4 | <b>Organise daily work efficiently</b>  | 4.1 | Assess and prioritise work load according to level of responsibility  |
|   |   | 4.2 | Advise supervisor if additional resources or support are required to improve performance  |
|   |   | 4.3 | Undertake duties in a positive manner to enhance workplace cooperation and efficiency   |
|   |   |     |   |
| 5 | <b>Accept responsibility for quality of own work</b>                                | 5.1 | Monitor and adjust work practices to ensure that the quality of outputs is maintained   |
|   |   | 5.2 | Identify and report opportunities for improvements in procedures, processes and equipment in work area  |

- |   |                                    |     |  |
|---|------------------------------------|-----|--|
| 6 | <b>Identify own learning needs</b> | 6.1 | Identify career options and training opportunities in the workplace  |
|   |                                    | 6.2 | Consult appropriate personnel to identify own learning needs for future work requirements and career aspirations |

## Foundation Skills

This section describes those language, literacy, numeracy and employment skills that are essential to performance.

Foundation skills essential to performance are explicit in the performance criteria of this unit of competency.

## Range of Conditions

This field allows for different work environments and conditions that may affect performance. Essential operating conditions that may be present (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) are included.

### **Standards, codes, procedures and/or workplace requirements**

Standards, codes, procedures and/or workplace requirements include the latest version of one or more of:

- Australian and international standards covering safety in laboratories, and quality and environmental management
- Australian codes covering good manufacturing practice for medicinal products (GMP), and Australian Dangerous Goods Code
- principles of good laboratory practice (GLP)
- national work health and safety (WHS) standards and codes of practice

### **Business ethics**

Business ethics include:

- working diligently and responsibly in accordance with workplace policy and procedures
- behaving honestly and openly, respecting others and treating them with courtesy and impartiality
- ensuring confidentiality of information, including client identification and test results



<b>Workplace sites</b>	<p>Workplace sites include, but are not limited to, one or more of:</p> <ul style="list-style-type: none"><li>• laboratories, head office functions, production or processing plants, supplier services and consultancy services</li></ul>
<b>Key functions</b>	<p>Key functions include one or more of:</p> <ul style="list-style-type: none"><li>• production</li><li>• packaging, warehouse and distribution</li><li>• quality assurance</li><li>• purchasing, sales and marketing</li><li>• human resources (personnel, training and employee relations)</li></ul>
<b>Sources of workplace information</b>	<p>Sources of workplace information include, but are not limited to, one or more of:</p> <ul style="list-style-type: none"><li>• noticeboards, public address or paging systems</li><li>• standard operating procedures (SOPs), manuals, work instructions, signs and notices, and material safety data sheets (MSDS)</li><li>• telephone or contact details, email systems and websites</li><li>• emergency exits, routes and collection points</li><li>• workplace recording and reporting procedures, quality manuals, and equipment and operating/technical manuals</li><li>• test methods (validated and authorised)</li><li>• schematics, workflows, laboratory layouts and production and laboratory schedules</li></ul>
<b>Workplace agreements, policies and procedures</b>	<p>Workplace agreements, policies and procedures include, but are not limited to, one or more of:</p> <ul style="list-style-type: none"><li>• industrial awards, workplace bargaining agreements and individual contracts</li><li>• health, safety and environment procedures covering hazards, controls, safe work methods, emergencies, accidents and incidents, and incident and accident/injury reports</li><li>• quality of customer services</li></ul>
<b>Legislative requirements</b>	<p>Legislative requirements involve, but are not limited to, one or more of:</p> <ul style="list-style-type: none"><li>• WHS and workers compensation</li></ul>

- environmental protection
- equal employment, anti-discrimination and anti-harassment
- ethics, copyright, intellectual property (IP) and privacy

**Sustainable energy principles and work practices**

Sustainable energy principles and work practices include one or more of:

- examining work practices that involve excessive use of electricity, gas and/or water and switching off equipment when not in use
- regularly cleaning filters
- minimising waste, recycling and reusing materials wherever feasible

**Scientific and technical support**

Scientific and technical support include one or more of:

- routine site sampling of raw materials and products
- packaging, labelling, storing and transporting samples
- visual inspection of products and packaging
- routine site measurements that take a short time and involve a narrow range of variables or easily recognised control limits
- cleaning of equipment and housekeeping of work areas

**Equipment and resources**

Equipment and resources will be determined by the scope and nature of the workplace's products, scientific/technical functions and services

**WHS and environmental management requirements**

WHS and environmental management requirements include:

- complying with WHS and environmental management requirements at all times, which may be imposed through state/territory or federal legislation. These requirements must not be compromised at any time
- applying standard precautions relating to the potentially hazardous nature of samples
- accessing and applying current industry understanding of infection control issued by the National Health and Medical Research Council (NHMRC) and State and Territory Departments of Health, where relevant

## Unit Mapping Information

Release 1. Supersedes and is equivalent to MSL912001A Work within a laboratory/field workplace (induction)

## Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=5c63a03b-4a6b-4ae5-9560-1e3c5f462baa>

## **Assessment Requirements for MSL912001 Work within a laboratory or field workplace (induction)**

### **Modification History**

Release 1. Supersedes and is equivalent to MSL912001A Work within a laboratory/field workplace (induction)

### **Performance Evidence**

Evidence of competence in this unit must satisfy all of the requirements of the elements and performance criteria, and include demonstration of:

- following workplace procedures to complete tasks within the required timeframe without compromising safety, quality and ethics
- complying with legislative and workplace requirements in everyday work and efficiently organising own daily work
- using personal protective clothing (PPE), equipment and containment facilities as required
- accepting responsibility for quality of own work
- working efficiently when alone and with others
- identifying and reporting suggestions for improvements
- identifying own learning needs.

### **Knowledge Evidence**

Must provide evidence that demonstrates knowledge of:

- range of workplace products and services
- workplace structure and reporting lines
- role of quality assurance and/or scientific/technical services in the workplace
- own role, rights, responsibilities and key tasks
- workplace procedures that govern personal work, health, safety and environment
- basic ethical values and principles, including respect for the law, responsibility, courtesy, diligence and confidentiality
- use and names of equipment, materials and other resources relevant to work function
- work health and safety (WHS) and environment requirements.

### **Assessment Conditions**

- Judgement of competence must be based on holistic assessment of the evidence. Assessment methods must confirm consistency of performance over time, rather than a single assessment event.

- This unit of competency is to be assessed in the workplace, or a simulated workplace environment. A simulated workplace environment must reflect realistic operational workplace conditions that cover all aspects of workplace performance, including the environment, task skills, task management skills, contingency management skills and job role environment skills.
- Foundation skills are integral to competent performance of the unit and should not be assessed separately.
- Assessment processes and techniques must be appropriate to the language, literacy and numeracy requirements of the work being performed and the needs of the candidate.
- Knowledge evidence may be collected concurrently with performance evidence or through an independent process, such as workbooks, written assessments or interviews (provided a record is kept in each case).
- This unit of competency may be assessed with:
  - MSL922001 Record and present data
- Holistic assessment methods include:
  - observation of candidate performing a range of scientific/technical tasks
  - feedback about performance from peers and supervisors
  - oral or written questioning to check required knowledge
  - review of workplace documentation completed by the candidate.
- Access is required to instruments, equipment, materials, workplace documentation, procedures, and specifications associated with this unit, including, but not limited to:
- relevant documentation, such as workplace standard operating procedures (SOPs), legal/regulatory requirements and codes of practice
- organisational charts and flow diagrams showing links between workplace functions and/or production processes
- employment, training and career information.
- Assessors must satisfy the assessor competency requirements that are in place at the time of the assessment as set by the VET regulator.
- The assessor must demonstrate both technical competence and currency.
- Technical competence can be demonstrated through:
  - relevant VET or other qualification/Statement of Attainment AND/OR
  - relevant workplace experience.
- Currency can be demonstrated through:
  - performing the competency being assessed as part of current employment OR
  - having consulted with a laboratory about performing the competency being assessed within the last twelve months.

## Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=5c63a03b-4a6b-4ae5-9560-1e3c5f462baa>

## MSL922001 Record and present data

### Modification History

Release	Comments
Release 2	Unit codes updated in Assessment conditions. Equivalent outcome.
Release 1	<p>This version was released in <i>MSL Laboratory Operations Training Package Release 1.0</i>.</p> <p>Supersedes and is equivalent to MSL922001A Record and present data</p>

### Application

This unit of competency covers the ability to record and store data, perform simple calculations of scientific quantities and present information in tables and graphs. The unit of competency requires personnel to solve predictable problems using clear information or known solutions. Where alternatives exist, they are limited or apparent.

This unit of competency is applicable to production operators, field assistants and laboratory assistants working in all industry sectors.

While no specific licensing or certification requirements apply to this unit at the time of publication, laboratory operations are governed by relevant legislation, regulations and/or external accreditation requirements. Local requirements should be checked.

### Pre-requisite Unit

Nil

### Competency Field

Data

### Unit Sector

### Elements and Performance Criteria

Elements describe the      Performance criteria describe the performance needed to

essential outcomes.

demonstrate achievement of the element.

- |   |   |     |   |
|---|---|-----|---|
| 1 | <b>Record and check data</b>                  | 1.1 | Enter data into laboratory information system or record sheets as directed          |
|   |   | 1.2 | Check data to identify transcription errors or atypical entries                     |
|   |   | 1.3 | Rectify errors in data using workplace procedures                                   |
|   |   |     |   |
| 2 | <b>Calculate simple scientific quantities</b> | 2.1 | Calculate simple scientific quantities using given formulae and data                |
|   |   | 2.2 | Ensure calculated quantities are consistent with estimations and expectations       |
|   |   | 2.3 | Report all calculated quantities with appropriate precision and units               |
|   |   |     |   |
| 3 | <b>Present data</b>                           | 3.1 | Present data accurately in tables, charts and graphs using given formats and scales |
|   |   | 3.2 | Recognise and report obvious features and trends in data                            |
|   |   |     |   |
| 4 | <b>Store and retrieve data</b>                | 4.1 | File and store data in accordance with workplace procedures                         |
|   |   | 4.2 | Maintain workplace confidentiality standards  |

## Foundation Skills

This section describes those language, literacy, numeracy and employment skills that are essential to performance.

Foundation skills essential to performance are explicit in the performance criteria of this unit of competency.

## Range of Conditions

This field allows for different work environments and conditions that may affect performance.

Essential operating conditions that may be present (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) are included.

**Standards, codes, procedures and/or workplace requirements**

Standards, codes, procedures and/or enterprise requirements include the latest version of one or more of:

- relevant Australian and international standards, such as the international system of units (SI) and its application
- national measurement regulations and guidelines

**Data**

Data includes:

- worksheets, spreadsheets or databases linked to information management systems
- results of observations, tests and measurements, or surveys
- graphs, tables and control charts
- semi quantitative observations expressed on a scale e.g. 1 to 4 or + to ++++

**Work health and safety (WHS) and environmental management requirements**

WHS and environmental management requirements include:

- complying with WHS and environmental management requirements at all times, which may be imposed through state/territory or federal legislation. These requirements must not be compromised at any time
- applying standard precautions relating to the potentially hazardous nature of samples
- accessing and applying current industry understanding of infection control issued by the National Health and Medical Research Council (NHMRC) and State and Territory Departments of Health, where relevant

## Unit Mapping Information

Release 1. Supersedes and is equivalent to MSL922001A Record and present data

## Links

MSL Laboratory Operations Companion Volume Implementation Guide is available from VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=5c63a03b-4a6b-4ae5-9560-1e3c5f462baa>



## Assessment Requirements for MSL922001 Record and present data

### Modification History

Release	Comments
Release 2	Unit codes updated in Assessment conditions. Equivalent outcome.
Release 1	<p>This version was released in <i>MSL Laboratory Operations Training Package Release 1.0</i>.</p> <p>Supersedes and is equivalent to MSL922001A Record and present data</p>

### Performance Evidence

Evidence of competence in this unit must satisfy all of the requirements of the elements and performance criteria, and include demonstration of:

- accurately coding, checking, recording and storing data in the required format
- performing simple calculations involving scientific quantities, with or without a calculator or computer software. The following must be performed:
  - decimals, fractions, ratios, proportions and percentages
  - unit conversion, multiples and submultiples
  - use of significant figures, rounding off, estimation and approximation
  - substitution of data in formulae
  - conversions between SI units
  - performing at least five (5) of the following calculations:
    - perimeters
    - angles
    - areas (m<sup>2</sup>) and volumes (mL, L, m<sup>3</sup>) of regular shapes (e.g. packaging and moulds)
    - average mass, mass %, density, specific gravity, moisture, relative and absolute humidity
    - ratios, such as mass to mass, mass to volume and volume to volume percentages
    - industry specific ratios, such as g/cm<sup>2</sup>, kg/m<sup>2</sup>
    - concentration (e.g. g/100mL, mg/L, mg/L)
    - dilution
    - statistical values, such as mean, median, mode and standard deviation
    - average count, colonies per swab surface and cell counts (live and dead/total)
    - process variables, such as pressure, velocity and flow rates

- % content of moisture, ash, fat, protein, alcohol, sulphur dioxide and trace metals, such as calcium or zinc
- food properties, such as % concentration (dry), friability, bitterness, brix, free amino nitrogen, diastatic power, calorific content and yeast viability
- preparing and interpreting straightforward tables, graphs and charts of data
- recognising obvious features and trends in data, including:
  - maximum and minimum values
  - spread of data
  - increasing/decreasing data, rate of change
  - outliers, data beyond control limits or normal range
- presenting accurate results in the required format
- maintaining the confidentiality of data in accordance with workplace and regulatory requirements.

## Knowledge Evidence

Must provide evidence that demonstrates knowledge of:

- concepts of metrology, including:
  - that all measurements are estimates
  - repeated measurements belong to a sample of the measured parameter
  - repeatability, precision, accuracy and significant figures
- the international system of units (SI)
- scientific and technical terminology relevant to job role
- procedures for coding, entering, storing, retrieving and communicating data
- procedures for verifying data and rectifying mistakes
- procedures for maintaining and filing records, and security of data

work health and safety (WHS) and environment requirements.

## Assessment Conditions

- Judgement of competence must be based on holistic assessment of the evidence. Assessment methods must confirm consistency of performance over time, rather than a single assessment event.
- This unit of competency is to be assessed in the workplace or a simulated workplace environment, and assessment evidence must be relevant to the particular workplace context. A simulated workplace environment must reflect realistic operational workplace conditions that cover all aspects of workplace performance, including the environment, task skills, task management skills, contingency management skills and job role environment skills.
- Foundation skills are integral to competent performance of the unit and should not be assessed separately.
- Assessment processes and techniques must be appropriate to the language, literacy and numeracy requirements of the work being performed and the needs of the candidate.

- Knowledge evidence may be collected concurrently with performance evidence or through an independent process, such as workbooks, written assessments or interviews (provided a record is kept in either case).
- This unit may be assessed with technical units, such as:
  - MSL973013 Perform basic tests
  - MSL973014 Prepare working solutions
  - MSL973019 Perform microscopic examination
- Holistic assessment methods include:
  - review of data worksheets, calculations, graphs and tables prepared by the candidate
  - review of records transcribed, maintained or stored by the candidate
  - feedback from supervisors and peers
  - observation of the candidate as they record data and perform calculations
  - questions to assess understanding of relevant procedures and trends in data.
- Access is required to instruments, equipment, materials, workplace documentation, procedures and specifications associated with this unit, including, but not limited to:
  - data sets and records
  - computer and relevant software or laboratory information system
  - relevant workplace procedures.
- Assessors must satisfy the assessor competency requirements that are in place at the time of the assessment as set by the VET regulator.
- The assessor must demonstrate both technical competence and currency.
- Technical competence can be demonstrated through:
  - relevant VET or other qualification/Statement of Attainment AND/OR
  - relevant workplace experience.
- Currency can be demonstrated through:
  - performing the competency being assessed as part of current employment OR
  - having consulted with a laboratory about performing the competency being assessed within the last twelve months.

## Links

MSL Laboratory Operations Companion Volume Implementation Guide is available from VETNet -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=5c63a03b-4a6b-4ae5-9560-1e3c5f462baa>

## MSL924003 Process and interpret data

### Modification History

Release	Comments
Release 1	<p>This version was released in <i>MSL Laboratory Operations Training Package Release 2.0</i>.</p> <p>Supersedes and equivalent to MSL924001 Process and interpret data. Changes to performance criteria. Range of conditions removed. Assessment requirements amended.</p>

### Application

This unit of competency describes the skills and knowledge to retrieve data, evaluate formulae and perform scientific calculations, present and interpret information in tables and graphs and keep accurate records. The unit requires personnel to solve problems of limited complexity where the information may be less obvious, but not contradictory, and can be determined by direct reasoning.

This unit of competency applies to laboratory assistants, field/laboratory technicians and instrument operators in all industry sectors.

No licensing or certification requirements exist at the time of publication. However, regulations and/or external accreditation requirements for laboratory operations exist, so local requirements should be checked. Relevant legislation, industry standards and codes of practice within Australia must also be applied.

### Pre-requisite Unit

Nil

### Competency Field

Data

### Elements and Performance Criteria

Elements describe the essential outcomes.

Performance criteria describe the performance needed to demonstrate achievement of the element.

Elements describe the essential outcomes.		Performance criteria describe the performance needed to demonstrate achievement of the element.	
1	<b>Retrieve and check data</b>	1.1	Store and retrieve data using appropriate files and/or application software
		1.2	Verify the quality of data using workplace procedures
		1.3	Rectify errors in data using workplace procedures
2	<b>Calculate scientific quantities</b>	2.1	Calculate statistical values for given data
		2.2	Calculate scientific quantities using given formulae and data and estimate uncertainties
		2.3	Ensure calculated quantities are consistent with estimations and expectations
		2.4	Report all calculated quantities using the appropriate units and correct number of significant figures
3	<b>Present data</b>	3.1	Present data in clearly labelled tables, charts and graphs
		3.2	Graph data using appropriate scales to span the range of data or display trends
		3.3	Report all data using the appropriate units and number of significant figures
4	<b>Interpret data</b>	4.1	Interpret significant features of tables, charts and graphs, including gradients, intercepts, maximum and minimum values, and limit lines
		4.2	Recognise and report trends in data
5	<b>Keep accurate records</b>	5.1	Transcribe information accurately
		5.2	Verify the accuracy of records following workplace procedures

## Foundation Skills

This section describes those language, literacy, numeracy and employment skills that are essential to performance.

Foundation skills essential to performance are explicit in the performance criteria of this unit of competency.

## Unit Mapping Information

Equivalent to MSL924001 Process and interpret data, Release 1.

## Links

MSL Laboratory Operations Companion Volume Implementation Guide is available from VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=5c63a03b-4a6b-4ae5-9560-1e3c5f462baa>

# Assessment Requirements for MSL924003 Process and interpret data

## Modification History

Release	Comments
Release 1	<p>This version was released in <i>MSL Laboratory Operations Training Package Release 2.0</i>.</p> <p>Supersedes and equivalent to MSL924001 Process and interpret data. Changes to performance criteria. Range of conditions removed. Assessment requirements amended.</p>

## Performance Evidence

There must be evidence the candidate has completed the tasks outlined in the elements and performance criteria of this unit, and:

- processed and interpreted different data sets
- calculated scientific and statistical quantities with or without a calculator or computer software, including the following items:
  - converting units involving multiples and submultiples
  - scientific notation, significant figures, round off, estimate and approximate
  - transposing and evaluating formulae
  - fractions, decimals, proportions and percentages
  - mean
  - median
  - mode
  - standard deviation
- performed at least 5 of the following calculations:
  - perimeters and angles
  - percentage and absolute uncertainties in measurements and test results
  - areas (m<sup>2</sup>) and volumes (mL, L, m<sup>3</sup>) of regular shapes, such as packaging
  - dose (mg), average mass, mass percentage, density, specific gravity, moisture, relative and absolute humidity, viscosity and permeability
  - ratios, such as mass to mass, mass to volume and volume to volume percentages
  - concentration, such as molarity, g/100mL, mg/L, mg/L, ppm, ppb, dilution mL/L
  - average count, colonies per swab surface and cell counts, such as live and dead/total
  - process variables, such as pressure, gauge pressure, velocity and flow rates

- food properties, such as % concentration (dry), friability, bitterness, brix, free amino nitrogen, diastatic power, calorific content and yeast viability, % content of moisture, ash, fat, protein, alcohol, sulphur dioxide and trace metals, such as calcium or zinc
- mechanical properties, such as stress, strain, moduli and force
- presenting accurate results in the required format (significant figures, uncertainty units)
- prepared and presented data in the at least 5 of the following formats:
  - tables
  - graphs
  - line graphs
  - histograms
  - pie charts, bar charts and control charts
  - semi-quantitative observations expressed on a scale: 1 to 4 or + to ++++
- recognised and interpreted significant points, anomalies and trends in data.

## Knowledge Evidence

- There must be evidence the candidate has knowledge of:
- concepts of metrology, including:
  - that all measurements are estimates
  - repeatability, precision, accuracy and significant figures
  - sources of error, and uncertainty associated with measurement steps
  - traceability
- the international system of units (SI)
- scientific and technical terminology relevant to job role
- workplace procedures for:
  - coding, entering, storing, retrieving and communicating data
  - verifying data and rectifying mistakes
  - maintaining and filing records, and maintaining security of data
- legal, ethical and work health and safety (WHS) requirements specific to the work task.

## Assessment Conditions

Skills must have been demonstrated in the workplace or in a simulated environment that reflects workplace conditions and contingencies. The following conditions must be met for this unit:

- use of suitable facilities, equipment and resources, including:
  - data sets and records
  - a calculator
  - spreadsheets, computer software, databases and statistical packages
  - computer and relevant software or laboratory information system
  - relevant workplace procedures.



Assessors must satisfy the NVR/AQTF mandatory competency requirements for assessors.

## Links

MSL Laboratory Operations Companion Volume Implementation Guide is available from VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=5c63a03b-4a6b-4ae5-9560-1e3c5f462baa>

## MSL924004 Use laboratory application software

### Modification History

Release	Comments
Release 1	<p>This version was released in <i>MSL Laboratory Operations Training Package Release 2.0</i>.</p> <p>Supersedes and equivalent to MSL924002 Use laboratory application software. Changes to performance criteria. Range of conditions removed. Assessment requirements amended.</p>

### Application

This unit of competency describes the skills and knowledge to use and apply computer software for analysing and reporting in the laboratory, field and/or production plants.

This unit of competency applies to technical officers and laboratory technicians in all industry sectors. It describes the application and use of software packages, this software would be for the storage, retrieval, analysis and display of information. There is no expectation that candidates would be able to customise the software to meet specific needs.

No licensing or certification requirements exist at the time of publication. However, regulations and/or external accreditation requirements for laboratory operations exist, so local requirements should be checked. Relevant legislation, industry standards and codes of practice within Australia must also be applied.

### Pre-requisite Unit

Nil

### Competency Field

Data

### Elements and Performance Criteria

Elements describe the essential outcomes.

Performance criteria describe the performance needed to demonstrate achievement of the element.

Elements describe the essential outcomes.		Performance criteria describe the performance needed to demonstrate achievement of the element.	
1	<b>Access application software</b>	1.1	Identify software required for the task
		1.2	Open software from a personal computer or network terminal
		1.3	Use information sources to locate details of software features and instructions for its use
2	<b>Use software for specified purposes</b>	2.1	Input a range of scientific data into a computing system
		2.2	Conduct searches for the retrieval of required data
		2.3	Use application features for efficient computation
		2.4	Construct data sets and databases for numerical and graphical analyses
3	<b>Produce reports of retrieved data and/or processed data</b>	3.1	Analyse data using features of the software package
		3.2	Select options for constructing data reports
		3.3	Print the results of data analyses using features of the software package
		3.4	Integrate data from diverse application software units in a report
		3.5	Report the outcomes and rationale for database searches
		3.6	Reference data sources according to the style requirements of the workplace
4	<b>Perform simple record housekeeping</b>	4.1	Maintain archived data according to workplace standard procedures
		4.2	Maintain hard copy data according to workplace standard procedures

## Foundation Skills

This section describes those language, literacy, numeracy and employment skills that are essential to performance.

- Problem solving skills to refine searches to retrieve data.

Other foundation skills essential to performance are explicit in the performance criteria of this unit.

## Unit Mapping Information

Equivalent to MSL924002 Use laboratory application software, Release 1.

## Links

MSL Laboratory Operations Companion Volume Implementation Guide is available from VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=5c63a03b-4a6b-4ae5-9560-1e3c5f462baa>

# Assessment Requirements for MSL924004 Use laboratory application software

## Modification History

Release	Comments
Release 1	<p>This version was released in <i>MSL Laboratory Operations Training Package Release 2.0</i>.</p> <p>Supersedes and equivalent to MSL924002 Use laboratory application software. Changes to performance criteria. Range of conditions removed. Assessment requirements amended.</p>

## Performance Evidence

There must be evidence the candidate has completed the tasks outlined in the elements and performance criteria of this unit, and:

- effectively used the most appropriate software for the analysis, reporting and management of 2 different sets of laboratory or field data and information.

## Knowledge Evidence

There must be evidence the candidate has knowledge of:

- terminology associated with the software packages used in job role
- basic knowledge of the types of spreadsheet, database and data analysis packages that are available
- application of specific software package features to laboratory tasks relevant to job role
- relationship between the protocol for data input and file storage of the data
- general file and record maintenance
- importance of antivirus software and standard quarantine procedures
- legal, ethical and work health and safety (WHS) requirements specific to the work task.

## Assessment Conditions

Skills must have been demonstrated in the workplace or in a simulated environment that reflects workplace conditions and contingencies. The following conditions must be met for this unit:

- use of suitable facilities, equipment and resources, including:
  - a computer network, personal computer or laptop

- software packages that cover databases, spreadsheets, statistical analysis and simple graphics output
- input and output data.

Assessors must satisfy the NVR/AQTF mandatory competency requirements for assessors.

## Links

MSL Laboratory Operations Companion Volume Implementation Guide is available from VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=5c63a03b-4a6b-4ae5-9560-1e3c5f462baa>

# MSL933007 Apply critical control point requirements

## Modification History

Release	Comments
Release 1	<p>This version was released in <i>MSL Laboratory Operations Training Package Release 2.0</i>.</p> <p>Supersedes and equivalent to MSL933003 Apply critical control point requirements. Range of conditions removed. Assessment requirements amended.</p>

## Application

This unit of competency describes the skills and knowledge to monitor critical, quality and regulatory control points related to a person's work responsibilities. This unit of competency also covers support for ongoing improvement of the workplace hazard analysis and critical control points (HACCP) plan.

This unit of competency applies to production operators and laboratory assistants in the food processing and manufacturing sectors. Control points refer to those key points in a work process that must be monitored and controlled.

No licensing or certification requirements exist at the time of publication. However, regulations and/or external accreditation requirements for laboratory operations exist, so local requirements should be checked. Relevant legislation, industry standards and codes of practice within Australia must also be applied.

## Pre-requisite Unit

Nil

## Competency Field

Quality

## Elements and Performance Criteria

Elements describe the essential outcomes.

Performance criteria describe the performance needed to demonstrate achievement of the element.

Elements describe the essential outcomes.		Performance criteria describe the performance needed to demonstrate achievement of the element.	
1	<b>Provide routine input to the HACCP plan</b>	1.1	Obtain information about control points in the manufacturing process
		1.2	Locate control points for own work area responsibilities
		1.3	Perform relevant checks and inspections on materials and equipment to establish conformance to meet requirements
		1.4	Identify variations or common faults
		1.5	Record inspection results and report to appropriate personnel
2	<b>Contribute to the continuous improvement of the HACCP plan</b>	2.1	Recognise non-conformance to the HACCP plan
		2.2	Identify likely causes for non-conformance
		2.3	Record and report non-conformances to appropriate personnel
3	<b>Maintain a safe work environment</b>	3.1	Use established safe work practices and personal protective equipment (PPE) to ensure personal safety and that of other personnel
		3.2	Report potential hazards and/or maintenance issues in own work area to designated personnel
		3.3	Minimise the generation of waste and environmental impacts
		3.4	Dispose of waste in accordance with workplace procedures, relevant codes and regulations

## Foundation Skills

This section describes those language, literacy, numeracy and employment skills that are essential to performance.



Foundation skills essential to performance are explicit in the performance criteria of this unit of competency.

## **Unit Mapping Information**

Equivalent to MSL933003 Apply critical control point requirements, Release 1.

## **Links**

MSL Laboratory Operations Companion Volume Implementation Guide is available from VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=5c63a03b-4a6b-4ae5-9560-1e3c5f462baa>

## Assessment Requirements for MSL933007 Apply critical control point requirements

### Modification History

Release	Comments
Release 1	<p>This version was released in <i>MSL Laboratory Operations Training Package Release 2.0</i>.</p> <p>Supersedes and equivalent to MSL933003 Apply critical control point requirements. Range of conditions removed. Assessment requirements amended.</p>

### Performance Evidence

There must be evidence the candidate has completed the tasks outlined in the elements and performance criteria of this unit, and:

- correctly and appropriately monitored the critical, quality and regulatory control points for 2 different processes in own work area.

### Knowledge Evidence

There must be evidence the candidate has knowledge of:

- the seven principles of HACCP and relationship to food or pharmaceutical safety, benefits of HACCP and preliminary steps for HACCP
- HACCP plan contents, including:
  - critical control points and control limits
  - consequences of non-conforming products being identified
- products/materials typically handled by laboratory assistants:
  - raw materials, ingredients, food additives, adjuncts/process aids and finished products
  - consumables, such as chemicals
- layout of the workplace, divisions and laboratory
- organisational structure of the workplace
- lines of communication
- quality policy, procedures and responsibilities of job role
- workplace procedures associated with the candidate's regular technical duties
- equipment and instrument calibration requirements
- continuous improvement practices
- methods used to monitor each critical, quality and regulatory control point
- methods for systematically investigating and responding to problems

- awareness of environmental sustainability issues as they relate to the work task
- legal, ethical and work health and safety (WHS) requirements specific to the work task.

## Assessment Conditions

Skills must have been demonstrated in the workplace or in a simulated environment that reflects workplace conditions and contingencies. The following conditions must be met for this unit:

- use of suitable facilities, equipment and resources, including:
  - quality manuals and procedures, HACCP plans and records
  - recording equipment
  - case studies to illustrate a range of HACCP issues.

Assessors must satisfy the NVR/AQTF mandatory competency requirements for assessors.

## Links

MSL Laboratory Operations Companion Volume Implementation Guide is available from VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=5c63a03b-4a6b-4ae5-9560-1e3c5f462baa>

## MSL933008 Perform calibration checks on equipment and assist with its maintenance

### Modification History

Release	Comments
Release 1	<p>This version was released in <i>MSL Laboratory Operations Training Package Release 2.0</i>.</p> <p>Supersedes and equivalent to MSL933004 Perform calibration checks on equipment and assist with its maintenance. Range of conditions removed. Assessment requirements amended.</p>

### Application

This unit of competency describes the skills and knowledge to perform set-up, pre-use and in-house calibration/validation checks on laboratory equipment and assist with laboratory equipment maintenance.

This unit of competency applies to laboratory assistants working in all industry sectors.

No licensing or certification requirements exist at the time of publication. However, regulations and/or external accreditation requirements for laboratory operations exist, so local requirements should be checked. Relevant legislation, industry standards and codes of practice within Australia must also be applied.

### Pre-requisite Unit

Nil

### Competency Field

Calibration

### Elements and Performance Criteria

Elements describe the essential outcomes.

Performance criteria describe the performance needed to demonstrate achievement of the element.

Elements describe the essential outcomes.		Performance criteria describe the performance needed to demonstrate achievement of the element.	
1	<b>Perform set-up and pre-use checks of laboratory equipment</b>	1.1	Perform laboratory equipment set-up and pre-use checks in accordance with workplace procedures
		1.2	Perform safety checks in accordance with relevant workplace and instrumental procedures
		1.3	Identify faulty or unsafe components and equipment and report to appropriate personnel
		1.4	Complete equipment log books/records to meet workplace requirements
2	<b>Perform calibration checks</b>	2.1	Start up equipment according to operating procedures
		2.2	Use specified standards for calibration check
		2.3	Check equipment in accordance with calibration procedures and schedules
		2.4	Record all calibration data accurately and legibly
		2.5	Compare data with specifications and/or previous records to identify non-compliant equipment
		2.6	Quarantine out-of-calibration equipment
3	<b>Assist with equipment maintenance</b>	3.1	Ensure all equipment work areas are clean during and after equipment use
		3.2	Perform basic maintenance in accordance with workplace procedures
		3.3	Clean and store equipment according to workplace and/or manufacturer's specifications/procedures
		3.4	Identify and replace, repair or dispose of damaged/worn equipment
4	<b>Maintain records</b>	4.1	Record maintenance details
		4.2	Report information on unsafe or faulty equipment

Elements describe the essential outcomes.

Performance criteria describe the performance needed to demonstrate achievement of the element.

according to workplace procedures

## Foundation Skills

This section describes those language, literacy, numeracy and employment skills that are essential to performance.

Foundation skills essential to performance are explicit in the performance criteria of this unit of competency.

## Unit Mapping Information

Equivalent to MSL933004 Perform calibration checks on equipment and assist with its maintenance, Release 1.

## Links

MSL Laboratory Operations Companion Volume Implementation Guide is available from VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=5c63a03b-4a6b-4ae5-9560-1e3c5f462baa>

## Assessment Requirements for MSL933008 Perform calibration checks on equipment and assist with its maintenance

### Modification History

Release	Comments
Release 1	<p>This version was released in <i>MSL Laboratory Operations Training Package Release 2.0</i>.</p> <p>Supersedes and equivalent to MSL933004 Perform calibration checks on equipment and assist with its maintenance. Range of conditions removed. Assessment requirements amended.</p>

### Performance Evidence

There must be evidence the candidate has completed the tasks outlined in the elements and performance criteria of this unit, and:

- accurately performed set-up, pre-use and calibration checks for at least 2 different items of laboratory equipment using standard procedures
- performed appropriate cleaning and maintenance tasks for at least 2 different items of laboratory equipment.

### Knowledge Evidence

There must be evidence the candidate has knowledge of:

- role and importance of regular calibration checks and maintenance of laboratory equipment
- function of key components of the laboratory equipment and details of the pre-use, calibration and safety checks and operating procedures for items of equipment used
- sources of uncertainty in laboratory equipment operation and their control
- basic equipment used for cleaning and maintaining laboratory equipment
- common sources of faults in the instruments or equipment used and details of their repair
- basic cleaning, maintenance and storage procedures for items of equipment used
- workplace procedures for recording calibration data and reporting results, communicating with service agents and suppliers and ordering stocks
- relevant hazards, work health and safety (WHS) and environmental management, and control measures
- good laboratory practice (GLP)
- legal and ethical requirements specific to the work task.

## Assessment Conditions

Skills must have been demonstrated in the workplace or in a simulated environment that reflects workplace conditions and contingencies. The following conditions must be met for this unit:

- use of suitable facilities, equipment and resources, including:
  - standard laboratory equipped with appropriate equipment and reference materials; cleaning, decontamination and/or disinfection agents and equipment; and personal protective equipment (PPE)
  - workplace procedures, equipment manuals and information/records management system.

Assessors must satisfy the NVR/AQTF mandatory competency requirements for assessors.

## Links

MSL Laboratory Operations Companion Volume Implementation Guide is available from VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=5c63a03b-4a6b-4ae5-9560-1e3c5f462baa>



## MSL934004 Maintain and calibrate instruments and equipment

### Modification History

Release	Comments
Release 1	<p>This version was released in <i>MSL Laboratory Operations Training Package Release 2.0</i>.</p> <p>Supersedes and equivalent to <i>MSL935004 Maintain instruments and equipment</i>. Change to elements and performance criteria. Range of conditions removed. Assessment requirements amended.</p>

### Application

This unit of competency describes the skills and knowledge to check the serviceability and calibration of laboratory/field instruments and equipment and perform routine maintenance, such as cleaning and replacement of consumables and minor components. Personnel are also required to perform basic troubleshooting and repairs consistent with warranty and service agreements.

This unit of competency applies to technical assistants, instrument operators and technical officers working in all industry sectors.

No licensing or certification requirements exist at the time of publication. However, regulations and/or external accreditation requirements for laboratory operations exist, so local requirements should be checked. Relevant legislation, industry standards and codes of practice within Australia must also be applied.

### Pre-requisite Unit

Nil

### Competency Field

Quality

## Elements and Performance Criteria

Elements describe the essential outcomes.

Performance criteria describe the performance needed to demonstrate achievement of the element.

- |   |   |     |   |
|---|---|-----|---|
| 1 | <b>Perform serviceability checks</b>            | 1.1 | Perform pre-use and after-use checks in accordance with appropriate workplace and manufacturer procedures |
|   |   | 1.2 | Identify faulty or unsafe components and equipment  |
|   |   | 1.3 | Identify and analyse service faults and report for appropriate for maintenance and/or repair              |
|   |   | 1.4 | Complete instrument/equipment logbooks to workplace requirements  |
| 2 | <b>Conduct routine maintenance safely</b>       | 2.1 | Identify maintenance procedures, records and safety requirements  |
|   |   | 2.2 | Plan and adjust maintenance schedules in accordance with operational requirements                         |
|   |   | 2.3 | Identify and replace or repair damaged, worn and/or spent components or items                             |
|   |   | 2.4 | Clean instruments and equipment using recommended cleaning agents and techniques                          |
|   |   | 2.5 | Store instruments and equipment in accordance with workplace and/or manufacturer requirements             |
|   |   | 2.6 | Update maintenance records in accordance with workplace procedures  |
|   |   | 2.7 | Arrange for reordering of consumable stocks and equipment components as necessary                         |
| 3 | <b>Perform calibration/qualification checks</b> | 3.1 | Operate instruments and equipment in accordance with workplace and/or manufacturer procedures             |
|   |   | 3.2 | Check calibration/qualification using specified standards and/or procedures                               |
|   |   | 3.3 | Record all calibration/qualification data accurately and legibly  |

Elements describe the essential outcomes.

Performance criteria describe the performance needed to demonstrate achievement of the element.

- 3.4 Document calibration status and report out-of-calibration equipment/instruments
- 3.5 Quarantine out-of-calibration items

## Foundation Skills

This section describes those language, literacy, numeracy and employment skills that are essential to performance.

- Reading skills to effectively interpret standard procedures and manufacturer requirements
- Writing skills to accurately record data and complete maintenance records
- Oral communication skills to interact effectively with suppliers and service agents.

Other foundation skills essential to performance are explicit in the performance criteria of this unit.

## Unit Mapping Information

Equivalent to MSL935004 Maintain instruments and equipment, Release 1.

## Links

MSL Laboratory Operations Companion Volume Implementation Guide is available from VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=5c63a03b-4a6b-4ae5-9560-1e3c5f462baa>

# Assessment Requirements for MSL934004 Maintain and calibrate instruments and equipment

## Modification History

Release	Comments
Release 1	<p>This version was released in <i>MSL Laboratory Operations Training Package Release 2.0</i>.</p> <p>Supersedes and equivalent to <i>MSL935004 Maintain instruments and equipment</i>. Change to elements and performance criteria. Range of conditions removed. Assessment requirements amended.</p>

## Performance Evidence

There must be evidence the candidate has completed the tasks outlined in the elements and performance criteria of this unit, and:

- checked the serviceability of at least 3 laboratory/field instruments or items of equipment and performing routine maintenance on each
- accurately conducted calibration status/qualification checks for at least 2 instruments or items of equipment.

## Knowledge Evidence

There must be evidence the candidate has knowledge of:

- role and importance of regular calibration checks and maintenance of instruments and equipment, and maintenance schedules and procedures
- function of key components of the instrument or equipment operating principles, details of the pre-use, calibration and safety checks, and operating procedures for the items used
- sources of uncertainty in instrument or equipment operation and their control
- common laboratory instruments and equipment
- equipment manuals and warranties
- common sources of faults in the instruments or equipment used and details of their repair
- typical basic repairs carried out on equipment
- typical calibration status/qualification checks
- basic equipment cleaning, maintenance and storage procedures for items of equipment used
- service agents or other personnel accredited to calibrate, service and repair equipment used in job role

- process involved in arranging calibration, repair and/or maintenance of equipment including assessment of instrument repair status and determining if local repair or maintenance is possible and economical
- workplace procedures for recording data and reporting results, communicating with service agents and suppliers and ordering stocks
- awareness of environmental sustainability issues as they relate to the work task
- legal, ethical and work health and safety (WHS) requirements specific to the work task.

## Assessment Conditions

Skills must have been demonstrated in the workplace or in a simulated environment that reflects workplace conditions and contingencies. The following conditions must be met for this unit:

- use of suitable facilities, equipment and resources, including:
  - standard laboratory equipped with appropriate instruments and equipment, reference materials, consumables; cleaning, decontamination and/or disinfection agents and equipment; and personal protective equipment (PPE)
  - workplace procedures, calibration and maintenance schedules, equipment manuals, supplier catalogues and information/records management system.

Assessors must satisfy the NVR/AQTF mandatory competency requirements for assessors.

## Links

MSL Laboratory Operations Companion Volume Implementation Guide is available from VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=5c63a03b-4a6b-4ae5-9560-1e3c5f462baa>

## MSL943004 Participate in laboratory or field workplace safety

### Modification History

Release	Comments
Release 1	<p>This version was released in <i>MSL Laboratory Operations Training Package Release 2.0</i>.</p> <p>Supersedes and equivalent to MSL943002 Participate in laboratory or field workplace safety. Foundation skills information added. Range of conditions removed. Assessment requirements amended.</p>

### Application

This unit of competency describes the skills and knowledge to follow work health and safety (WHS) policies and procedures, deal with the identification and control of hazards, work safely at all times, follow emergency response procedures and contribute to the maintenance of workplace safety.

This unit of competency applies to laboratory assistants and instrument operators working in all industry sectors. WHS responses are restricted to a 'first response' approach, including the notification of appropriate workplace personnel. Workers will be provided with clear directions, information, training and appropriate supervision.

No licensing or certification requirements exist at the time of publication. However, regulations and/or external accreditation requirements for laboratory operations exist, so local requirements should be checked. Relevant legislation, industry standards and codes of practice within Australia must also be applied.

### Pre-requisite Unit

Nil

### Competency Field

Work health and safety

## Elements and Performance Criteria

Elements describe the essential outcomes.

Performance criteria describe the performance needed to demonstrate achievement of the element.

- |   |   |     |   |
|---|---|-----|---|
| 1 | <b>Identify, control and report WHS and environmental hazards</b> | 1.1 | Routinely check immediate work area for hazards prior to commencing and during work   |
|   |   | 1.2 | Address hazards within area of responsibility   |
|   |   | 1.3 | Report hazards and incidents to designated personnel according to workplace policies and procedures   |
|   |   |     |   |
| 2 | <b>Conduct work safely</b>  | 2.1 | Select, fit and use appropriate personal protective equipment (PPE)   |
|   |   | 2.2 | Follow workplace procedures when carrying out work tasks  |
|   |   | 2.3 | Keep all work areas clean and free from obstacles   |
|   |   | 2.4 | Maintain workplace standards of personal hygiene  |
|   |   | 2.5 | Safely store, transport and dispose of hazardous materials and dangerous goods  |
|   |   |     |   |
| 3 | <b>Follow incident and emergency response procedures</b>          | 3.1 | Identify incident and emergency situations  |
|   |   | 3.2 | Report and record incident and emergency situations according to workplace procedures   |
|   |   | 3.3 | Follow incident and emergency procedures as appropriate to the nature of emergency using emergency equipment according to workplace procedures          |
|   |   |     |   |
| 4 | <b>Contribute to health and safety in the workplace</b>           | 4.1 | Raise WHS and environmental issues with designated personnel in accordance with workplace procedures and legislated rights and obligations of employees |
|   |   | 4.2 | Participate in WHS activities within scope of responsibilities  |

## Foundation Skills

This section describes those language, literacy, numeracy and employment skills that are essential to performance.

- Oral communication skills to clarify obligations, procedures and work instructions that impact on safety and legal liability.

Other foundation skills essential to performance are explicit in the performance criteria of this unit.

## Unit Mapping Information

Equivalent to MSL943002 Participate in laboratory/field workplace safety, Release 1.

## Links

MSL Laboratory Operations Companion Volume Implementation Guide is available from VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=5c63a03b-4a6b-4ae5-9560-1e3c5f462baa>



## Assessment Requirements for MSL943004 Participate in laboratory or field workplace safety

### Modification History

Release	Comments
Release 1	<p>This version was released in <i>MSL Laboratory Operations Training Package Release 2.0</i>.</p> <p>Supersedes and equivalent to MSL943002 Participate in laboratory or field workplace safety. Foundation skills information added. Range of conditions removed. Assessment requirements amended.</p>

### Performance Evidence

There must be evidence the candidate has completed the tasks outlined in the elements and performance criteria of this unit, and:

- completed 2 different routine work tasks working safely at all times by following work health and safety (WHS) policies and procedures.

### Knowledge Evidence

There must be evidence the candidate has knowledge of:

- personal roles, rights and responsibilities and those of the employer
- signage, symbols and signals relating to WHS
- examples of hazards relevant to the work area, likely impacts and ways of addressing these using the hierarchy of control
- site layout, including emergency exits, location and use of safety alarms, emergency response system and procedures, and designated WHS personnel
- location, use, care and storage requirements for personal protective equipment (PPE) and emergency/hazard control equipment in the work area
- sources of advice and information on WHS issues, including safety data sheets (SDS) and key personnel
- relevant industry codes
- standard operating procedures (SOPs), workplace procedures and safe work practices relevant to job role, including:
  - handling, storage and disposal of hazardous substances and requirements for labelling of hazardous substances
  - handling equipment and any task-specific manual handling techniques as required by work role
  - controlling known hazards

- minimising environmental threats
- minimising and disposing of waste
- responding to safety, emergency, fire and incidents
- selecting/using PPE
- instructions that govern personal work, equipment use, and response to incidents and emergencies
- requirements and procedures for reporting (potential) WHS hazards and incidents, injuries, illness and near misses, and safety and environmental issues or concerns
- incidents that may occur in a laboratory or field workplace
- WHS and environmental issues that may occur
- legal, ethical and work health and safety (WHS) requirements specific to the work task.

## Assessment Conditions

Skills must have been demonstrated in the workplace or in a simulated environment that reflects workplace conditions and contingencies. The following conditions must be met for this unit:

- use of suitable facilities, equipment and resources, including:
  - typical laboratory/field work equipment and materials
  - PPE
  - emergency equipment including first aid equipment, eye wash kit or shower and fire extinguisher
  - workplace procedures.

Assessors must satisfy the NVR/AQTF mandatory competency requirements for assessors.

## Links

MSL Laboratory Operations Companion Volume Implementation Guide is available from VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=5c63a03b-4a6b-4ae5-9560-1e3c5f462baa>

# MSL952001 Collect routine site samples

## Modification History

Release 1. Supersedes and is equivalent to MSL952001A Collect routine site samples

## Application

This unit of competency covers the ability to collect samples at field or production sites using specified equipment and standard or routine procedures.

This unit of competency is applicable to production operators, field assistants and laboratory assistants in all industry sectors.

While no specific licensing or certification requirements apply to this unit at the time of publication, laboratory operations are governed by relevant legislation, regulations and/or external accreditation requirements. Local requirements should be checked.

## Pre-requisite Unit

Nil

## Competency Field

Sampling

## Unit Sector

## Elements and Performance Criteria

Elements describe the essential outcomes.

Performance criteria describe the performance needed to demonstrate achievement of the element.

1	<b>Prepare for sampling</b>	1.1	Confirm the purpose, priority and scope of the sampling request
		1.2	Liaise with relevant personnel to arrange site access and all necessary clearances/permits
		1.3	Identify site hazards and review workplace safety procedures

- 1.4 Confirm what samples are to be collected, from where, how and when
  - 1.5 Assemble all specified sampling equipment, safety equipment, materials and containers
  - 1.6 Conduct pre-use and cleanliness checks of all items to ensure they are fit for purpose
  - 1.7 Check all items against given inventory and stow them to ensure safe transport
- 2 **Conduct sampling**
  - 2.1 Locate sampling points and services at the site
  - 2.2 Remove security devices, such as locks and covers as required
  - 2.3 Seek advice if the required samples cannot be collected or if procedures require modification
  - 2.4 Select and use required sampling equipment in accordance with given procedures
  - 2.5 Closely follow sampling procedures to obtain required samples and maintain their integrity
  - 2.6 Record all labelling information in accordance with workplace/legal traceability requirements
  - 2.7 Record sample appearance, environmental conditions and any other factors that may impact on sample integrity
  - 2.8 Replace security devices, such as locks and covers as required
- 3 **Finalise sampling**
  - 3.1 Follow workplace procedures for the cleaning/decontamination of equipment and vehicle as necessary
  - 3.2 Check all equipment, materials and samples against inventory and stow for safe transport
  - 3.3 Liaise with relevant personnel to restore normal production and/or services as necessary

- |   |   |     |   |
|---|---|-----|---|
|   |   | 3.4 | Maintain integrity of samples during transportation   |
|   |   | 3.5 | Deliver samples to the required collection point and complete all documentation to ensure traceability              |
|   |   | 3.6 | On return, check and document serviceability of equipment before storage  |
| 4 | <b>Maintain a safe work environment</b> | 4.1 | Use established work practices and personal protective equipment (PPE) to ensure personal safety and that of others |
|   |   | 4.2 | Minimise environmental impacts of sampling and generation of waste  |
|   |   | 4.3 | Dispose of all waste in accordance with workplace procedures  |

## Foundation Skills

This section describes those language, literacy, numeracy and employment skills that are essential to performance.

Foundation skills essential to performance are explicit in the performance criteria of this unit of competency.

## Range of Conditions

This field allows for different work environments and conditions that may affect performance. Essential operating conditions that may be present (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) are included.

### **Standards, codes, procedures and/or workplace requirements**

Standards, codes, procedures and/or workplace requirements include the latest version of one or more of:

- Australian and international standards covering the requirements for the competence of testing and calibration laboratories, laboratory safety, quality and environmental management, and sampling of materials
- national work health and safety (WHS) standards and codes of practice, national environmental protection measures, and national measurement regulations and guidelines
- specific codes, guidelines and procedures, such as National

Association of Testing Authorities (NATA) accreditation requirements, and principles of good laboratory practice (GLP)

- workplace documents, such as standard operating procedures (SOPs); quality and equipment manuals; calibration and maintenance schedules; material safety data sheets (MSDS); safety procedures; material, production and product specifications; production and laboratory schedules; workplace recording and reporting procedures; waste minimisation and safe disposal procedures; and maps and site plans
- sampling procedures for specific samples, sites and clients (labelling, preparation, storage, transport and disposal)

**Materials sampled**

Materials sampled as part of job role include one or more of:

- gas or air samples
- water, wastewater, stormwater, sewage and sludge
- solid samples, such as soil, sediments, rocks, concrete, quarry and mining material, and solid wastes
- raw materials, start, middle, end of production run samples, and final products and materials used in production processes, including food and beverages
- hazardous materials and/or dangerous goods

**Maintenance of integrity of samples**

Maintenance of integrity of samples includes one or more of:

- use of appropriate containers and lids, sealing of sample containers
- purging of sample lines and bores
- decontamination of sampling tools between collection of consecutive samples
- use of appropriate preservatives
- temperature control, which may involve prevention of direct contact between the sample and coolant, and wrapping container in foil or wet newspaper
- transfer of sterile sample into sterile container
- monitoring of storage conditions
- workplace/legal traceability through appropriate sample labelling and records

**Services**

Services include one or more of:

- water supply, gas and electricity
- telecommunications
- irrigation, stormwater and drainage systems

- production plant

**Safety procedures**

Safety procedures include, but are not limited to, one or more of:

- use of PPE
- handling, labelling and storing hazardous material and equipment in accordance with labels, MSDS, manufacturer instructions and workplace procedures and regulations
- regular cleaning and/or decontamination of equipment
- use of machinery guards
- signage, barriers, service isolation tags, traffic control and flashing lights, lock out and tag-out procedures

**Minimising environmental impacts**

Minimising environmental impacts includes, but is not limited to, one or more of:

- replacement of soils and vegetation
- driving vehicles to minimise soil erosion and damage to fauna and vegetation
- appropriate disposal of surplus, spent or purged materials and hazardous waste
- recycling of non-hazardous wastes
- cleaning of vehicles and equipment to prevent transfer of pests and contaminants

**WHS and environmental management requirements**

WHS and environmental management requirements include:

- complying with WHS and environmental management requirements at all times, which may be imposed through state/territory or federal legislation. These requirements must not be compromised at any time
- applying standard precautions relating to the potentially hazardous nature of samples
- accessing and applying current industry understanding of infection control issued by the National Health and Medical Research Council (NHMRC) and State and Territory Departments of Health, where relevant

**Unit Mapping Information**

Release 1. Supersedes and is equivalent to MSL952001A Collect routine site samples

## Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=5c63a03b-4a6b-4ae5-9560-1e3c5f462baa>



# Assessment Requirements for MSL952001 Collect routine site samples

## Modification History

Release 1. Supersedes and is equivalent to MSL952001A Collect routine site samples

## Performance Evidence

Evidence of competence in this unit must satisfy all of the requirements of the elements and performance criteria, and include demonstration of:

- locating services at sites
- collecting samples at field or production sites on at least three (3) occasions using specified equipment and standard/routine procedures
- collecting at least three (3) different types of samples
- collecting samples efficiently, safely and with minimal environmental impact in accordance with sampling procedures and plans
- maintaining the integrity and security of samples following safety procedures, workplace and/or legal traceability requirements
- completing sampling records using workplace procedures
- recognising own limitations and seeking timely advice
- liaising with others to access sites and conduct sampling efficiently.

## Knowledge Evidence

Must provide evidence that demonstrates knowledge of:

- terminology and concepts, including sample, contamination, traceability, integrity and chain of custody, metrology and the international system of units (SI)
- types of samples, including grab samples (disturbed or undisturbed materials), composite samples (such as time, flow proportioned and horizontal/vertical cross section), and quality control samples (such as controls, background, duplicate and blanks)
- characteristics of product/materials sampled as part of job role
- purpose for which the samples have been collected
- function of key sampling equipment/materials and principles of operation
- sampling procedures covering labelling, preparation, storage, transport and disposal
- hazards, risks, environmental protection measures and work health and safety (WHS) procedures associated with routine sampling undertaken
- workplace procedures dealing with waste management, clean-up and spillage, handling, transport and storage of dangerous goods.

## Assessment Conditions

- Judgement of competence must be based on holistic assessment of the evidence. Assessment methods must confirm consistency of performance over time, rather than a single assessment event.
- This unit of competency is to be assessed in the workplace or a simulated workplace environment. A simulated workplace environment must reflect realistic operational workplace conditions that cover all aspects of workplace performance, including the environment, task skills, task management skills, contingency management skills and job role environment skills.
- Foundation skills are integral to competent performance of the unit and should not be assessed separately.
- Assessment processes and techniques must be appropriate to the language, literacy and numeracy requirements of the work being performed and the needs of the candidate.
- Knowledge evidence may be collected concurrently with performance evidence or through an independent process, such as workbooks, written assessments or interviews (provided a record is kept in each case).
- This unit of competency may be assessed with:
  - MSL972001 Conduct routine site measurements
- Holistic assessment methods include:
  - review of sampling documentation completed by the candidate
  - review of the quality of samples collected by the candidate
  - observation of the candidate collecting a variety of samples at a range of sites
  - feedback from supervisors and clients that sampling plans were followed
  - oral/written questioning about sampling and safety procedures.
- Access is required to instruments, equipment, materials, workplace documentation, procedures and specifications associated with this unit, including, but not limited to:
  - field or production sites to sample and a variety of sample types
  - sampling tools, containers, equipment and procedures.
- Assessors must satisfy the assessor competency requirements that are in place at the time of the assessment as set by the VET regulator.
- The assessor must demonstrate both technical competence and currency.
- Technical competence can be demonstrated through:
  - relevant VET or other qualification/Statement of Attainment AND/OR
  - relevant workplace experience.
- Currency can be demonstrated through:
  - performing the competency being assessed as part of current employment OR
  - having consulted with a laboratory about performing the competency being assessed within the last twelve months.

## Links

Companion Volume implementation guides are found in VETNet -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=5c63a03b-4a6b-4ae5-9560-1e3c5f462baa>



## MSL952002 Handle and transport samples or equipment

### Modification History

Release	Comments
Release 2	Unit codes in Assessment Conditions updated. Equivalent outcome.
Release 1	Supersedes and is equivalent to MSL952002A Handle and transport samples or equipment.

### Application

This unit of competency covers the ability to pick up and transport samples or test/calibration equipment in a way that ensures the integrity of subsequent test results.

This unit of competency is applicable to couriers and laboratory and field assistants in all industry sectors. The person transporting the items is not necessarily responsible for sampling or testing. This unit does not cover sample collection or the ability to handle and transport animals as might be defined under prevailing animal care and ethics legislation and practices.

While no specific licensing or certification requirements apply to this unit at the time of publication, laboratory operations are governed by relevant legislation, regulations and/or external accreditation requirements. Local requirements should be checked.

### Pre-requisite Unit

Nil

### Competency Field

Sampling

### Unit Sector

### Elements and Performance Criteria

Elements describe the essential outcomes.

Performance criteria describe the performance needed to demonstrate achievement of the element.

- |   |                                     |     |   |
|---|-------------------------------------|-----|---|
| 1 | <b>Prepare for pickup</b>           | 1.1 | Confirm pickup sequence and any licence or permit requirements with supervisor                          |
|   |                                     | 1.2 | Check that vehicle and communication devices are in working order                                       |
|   |                                     | 1.3 | Check that required transport containers and materials are in the vehicle                               |
|   |                                     |     |   |
| 2 | <b>Pick up and transport items</b>  | 2.1 | Confirm the number and nature of items to be picked up on arrival                                       |
|   |                                     | 2.2 | Ensure items match documentation  |
|   |                                     | 2.3 | Apply workplace requirements to the transport of samples and/or equipment                               |
|   |                                     | 2.4 | Alert laboratory personnel to any special needs that are identified on documents accompanying the items |
|   |                                     | 2.5 | Complete required documentation at pickup point   |
|   |                                     | 2.6 | Stow items in the specified transport containers and under the required conditions                      |
|   |                                     | 2.7 | Maintain sample integrity at all times  |
|   |                                     | 2.8 | Deliver items to reception point in accordance with workplace procedures                                |
|   |                                     | 2.9 | Maintain confidentiality of information   |
|   |                                     |     |   |
| 3 | <b>Maintain transport equipment</b> | 3.1 | Maintain vehicle according to workplace requirements  |
|   |                                     | 3.2 | Maintain state of transport containers to ensure they are fit for purpose                               |
|   |                                     | 3.3 | Requisition stocks of consumable materials as required  |
|   |                                     | 3.4 | Replenish stocks of collecting equipment at collection centres as required                              |
|   |                                     |     |   |
| 4 | <b>Maintain a safe work</b>         | 4.1 | Use established work safety practices and personal protective equipment (PPE) to ensure personal safety |

**environment**

and that of others

- 4.2 Clean up spills, if they occur, using workplace procedures
- 4.3 Minimise the generation of waste
- 4.4 Dispose of all waste in accordance with workplace procedures

## Foundation Skills

This section describes those language, literacy, numeracy and employment skills that are essential to performance.

Foundation skills essential to performance are explicit in the performance criteria of this unit of competency.

## Range of Conditions

This field allows for different work environments and conditions that may affect performance. Essential operating conditions that may be present (depending on the work situation, needs of the, accessibility of the item, and local industry and regional contexts) are included.

**Standards, codes, procedures and/or workplace requirements**

Standards, codes, procedures and/or workplace requirements include the latest version of one or more of:

- Australian and international standards covering the requirements for the competence of testing and calibration laboratories; laboratory safety; quality management and environmental management; and labelling, storage, transport and disposal of hazardous materials
- national work health and safety (WHS) standards and codes of practice, and national environmental protection measures
- specific codes, guidelines and procedures, such as Australian Dangerous Goods Code, Australia Post Guides and International Air Transport Association (IATA) Regulations
- workplace documents, such as standard operating procedures (SOPs); material safety data sheets (MSDS); safety procedures for specific materials and equipment; material, production and product specifications; production and laboratory schedules; workplace recording and reporting procedures; spillage and waste containment and disposal protocols; maps and site plans; protocols regarding customer liaison and use of communication devices; vehicle log books and incident/accident report forms

**Workplace requirements for the transport of samples and/or equipment**

Workplace requirements for the transport of samples and/or equipment include, but are not limited to, one or more of:

- using appropriate sample containers (glass, plastic and opaque) and preservatives
- using appropriate sample and equipment boxes (insulated, shockproof and waterproof)
- wrapping containers in foil to exclude light
- using temperature control, which may involve prevention of direct contact between the sample and coolant
- restraining containers to prevent movement
- checking sample viability during transport while avoiding unnecessary handling

**Work safety procedures**

Work safety procedures include, but are not limited to, one or more of:

- using safe vehicle driving practices
- handling, labelling and storing hazardous material and equipment in accordance with labels, MSDS, manufacturer instructions and workplace procedures and regulations, and signage
- using PPE
- regular cleaning and/or decontamination of equipment and vehicle
- containing and cleaning up spillage or breakages
- using appropriate techniques and equipment to safely dispose of waste materials

**WHS and environmental management requirements**

WHS and environmental management requirements include:

- complying with WHS and environmental management requirements at all times, which may be imposed through state/territory or federal legislation. These requirements must not be compromised at any time
- applying standard precautions relating to the potentially hazardous nature of samples
- accessing and applying current industry understanding of infection control issued by the National Health and Medical Research Council (NHMRC) and State and Territory Departments of Health, where relevant

## Unit Mapping Information

Equivalent to MSL952002 Handle and transport samples or equipment, Release 1

## Links

MSL Laboratory Operations Companion Volume Implementation Guide is available from VETNet -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=5c63a03b-4a6b-4ae5-9560-1e3c5f462baa>



# Assessment Requirements for MSL952002 Handle and transport samples or equipment

## Modification History

Release	Comments
Release 2	Unit codes in Assessment Conditions updated. Equivalent outcome.
Release 1	Supersedes and is equivalent to MSL952002A Handle and transport samples or equipment.

## Performance Evidence

- Evidence of competence in this unit must satisfy all of the requirements of the elements and performance criteria, and include demonstration of:
- planning the pickup of items in conjunction with a supervisor on at least one (1) occasion
- safely picking up and transporting samples or test/calibration equipment on at least two (2) occasions in a way that ensures the integrity of subsequent test results
- checking that the vehicle, transport containers and materials, and communication devices are present and fit for purpose prior to departure
- using communication devices to maintain contact between the courier, reception centre and routine pickup locations
- communicating effectively and courteously with individuals, customers, clients and reception staff
- maintaining confidentiality and reporting problems, accidents and incidents in accordance with procedures
- recording details of item exchange in relevant sections of chain of custody forms, as required
- maintaining stocks of consumables and collecting equipment at collection centres, as required
- cleaning up spills, if they occur, and minimising and disposing of waste in accordance with workplace procedures.

## Knowledge Evidence

Must provide evidence that demonstrates knowledge of:

- need for appropriate and timely transport and the importance of effective communication with clients and customers to workplace business
- nature of samples and/or equipment transported and the effects of changes in environmental conditions, vibration and shock on them
- control measures for minimising exposure to hazardous materials and equipment

- procedures for safe, efficient containment and clean up of spillages and breakages and their disposal
- maintenance requirements of vehicle and equipment used in the handling and transporting samples and equipment
- workplace procedures for responding to emergencies
- relevant hazards, work health safety (WHS) and environment requirements

Additional knowledge requirements will apply for different industry sectors. For example for biomedical samples:

- labile nature of biological and environmental samples
- possible infectivity of biological materials
- effects of exposure to radioactive materials.

## Assessment Conditions

- Judgement of competence must be based on holistic assessment of the evidence. Assessment methods must confirm consistency of performance over time, rather than a single assessment event.
- This unit of competency is to be assessed in the workplace or a simulated workplace environment. A simulated workplace environment must reflect realistic operational workplace conditions that cover all aspects of workplace performance, including the environment, task skills, task management skills, contingency management skills and job role environment skills.
- Foundation skills are integral to competent performance of the unit and should not be assessed separately.
- Assessment processes and techniques must be appropriate to the language, literacy and numeracy requirements of the work being performed and the needs of the candidate.
- Knowledge evidence may be collected concurrently with performance evidence or through an independent process, such as workbooks, written assessments or interviews (provided a record is kept in each case).
- This unit of competency may be assessed with:
  - MSL943004 Participate in laboratory or field workplace safety
- Holistic assessment methods include:
  - review of the candidate's job sheets or logs of completed activities
  - review of the quality of results traceable to the transport of samples or equipment by candidate
  - feedback from supervisors, other laboratory personnel and customers about the candidate's ability to communicate effectively and safely handle and transport samples and equipment in accordance with workplace procedures and schedules
  - direct observation of the candidate's work as a courier
  - oral or written questions to assess knowledge of workplace requirements for the handling and transport of samples and equipment
  - simulated role plays covering interactions between a courier and personnel at a reception desk or customer pickup centre.

- Access is required to instruments, equipment, materials, workplace documentation, procedures and specifications associated with this unit, including, but not limited to:
  - transport vehicle, containers for transporting samples and test/calibration equipment, and communication devices
  - workplace protocols and procedures covering the handling and transport of samples or equipment.
- Assessors must satisfy the assessor competency requirements that are in place at the time of the assessment as set by the VET regulator.
- The assessor must demonstrate both technical competence and currency.
- Technical competence can be demonstrated through:
  - relevant VET or other qualification/Statement of Attainment AND/OR
  - relevant workplace experience.
- Currency can be demonstrated through:
  - performing the competency being assessed as part of current employment OR
  - having consulted with a laboratory about performing the competency being assessed within the last twelve months.

## Links

MSL Laboratory Operations Companion Volume Implementation Guide is available from VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=5c63a03b-4a6b-4ae5-9560-1e3c5f462baa>

# MSL972001 Conduct routine site measurements

## Modification History

Release 1. Supersedes and is equivalent to MSL972001A Conduct routine site measurements

## Application

This unit of competency covers the ability to make direct measurements using workplace procedures. Measurements will be straightforward and involve a minimal number of steps, take a short time, have easily recognised control limits and use equipment calibrated by others. Measurements include the use of instruments and/or kits.

This unit of competency is applicable to production operators, field assistants and laboratory assistants in manufacturing, construction materials and environmental services industry sectors.

While no specific licensing or certification requirements apply to this unit at the time of publication, laboratory operations are governed by relevant legislation, regulations and/or external accreditation requirements. Local requirements should be checked.

## Pre-requisite Unit

Nil

## Competency Field

Testing

## Unit Sector

## Elements and Performance Criteria

Elements describe the essential outcomes.

Performance criteria describe the performance needed to demonstrate achievement of the element.

1	<b>Prepare for measurements</b>	1.1	Confirm the purpose, priority and nature of measurements required
		1.2	Liaise with relevant personnel to arrange site access and all necessary clearances/permits

- 1.3 Identify site hazards and review workplace safety procedures
  - 1.4 Assemble all measuring and safety equipment and check they are fit for purpose
  - 1.5 Check all equipment/materials against a given inventory and stow them to ensure safe transport
  - 1.6 Arrange appropriate transport for site access as required
- 2 **Perform measurements**
  - 2.1 Locate measurement points and services at the site
  - 2.2 Gain access to measurement points by removing covers and locks as appropriate
  - 2.3 Seek advice if the required measurements cannot be made or if procedures require modification
  - 2.4 Operate measuring equipment in accordance with workplace procedures and manufacturer instructions
  - 2.5 Take sufficient readings to ensure reliable data
  - 2.6 Record data with appropriate accuracy, precision and units
  - 2.7 Record environmental/site conditions and any other observations that may impact on data quality
  - 2.8 Recognise obvious errors/atypical data and take appropriate corrective action
  - 2.9 Secure measuring points by replacing covers and locking as appropriate
- 3 **Finalise measurements**
  - 3.1 Follow workplace procedures for the cleaning/decontamination of equipment and vehicle as necessary
  - 3.2 Check all equipment and materials against inventory and stow for safe transport
  - 3.3 Liaise with relevant personnel to restore normal production and/or services as necessary

		3.4	Report all measurements in accordance with workplace procedures
		3.5	On return, check and document serviceability of equipment before storage
4	<b>Maintain a safe work environment</b>	4.1	Use established work practices and personal protective equipment (PPE) to ensure personal safety and that of others
		4.2	Minimise environmental impacts of measurements and generation of waste
		4.3	Dispose of all waste in accordance with workplace procedures

## Foundation Skills

This section describes those language, literacy, numeracy and employment skills that are essential to performance.

Foundation skills essential to performance are explicit in the performance criteria of this unit of competency.

## Range of Conditions

This field allows for different work environments and conditions that may affect performance. Essential operating conditions that may be present (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) are included.

<b>Standards, codes, procedures and/or workplace requirements</b>	Standards, codes, procedures and/or workplace requirements include the latest version of one or more of: <ul style="list-style-type: none"> <li>• Australian and international standards covering the requirements for the competence of testing and calibration laboratories, laboratory safety, quality management and environmental management</li> <li>• national work health and safety (WHS) standards and codes of practice, national environmental protection measures, and national measurement regulations and guidelines</li> <li>• specific codes, guidelines and procedures, such as National Association of Testing Authorities (NATA) accreditation</li> </ul>
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- requirements and principles of good laboratory practice (GLP)
- workplace documents, such as standard operating procedures (SOPs); quality and equipment manuals; calibration and maintenance schedules; material safety data sheets (MSDS); safety procedures; material, production and product specifications; production and laboratory schedules; workplace recording and reporting procedures; waste minimisation and safe disposal procedures; and maps and site plans
- measurement procedures for specific sites and clients

**Direct measurements** Direct measurements role include, but are not limited to, one or more of:

- basic production/process parameters (e.g. flow, temperature, pressure, mass and depth, and dimensions)
- simple surveys (e.g. number of trees in quadrant)
- meteorological measurements (e.g. temperature, rainfall and wind)
- sound (e.g. dB level and dBA)
- light levels and illumination
- background radiation (e.g. Geiger counter)
- chemical tests using simple instruments and/or kits to test pH, specific ions, such as iron in water using dipsticks, dissolved oxygen (DO) and electrical conductivity (EC)

**Measuring equipment**

Measuring equipment includes, but is not limited to, one or more of:

- tape measures, rulers, micrometers, Vernier callipers and water level indicators
- balances
- meter/probe systems, such as DO and EC
- analogue and digital meters, such as voltage, current, resistance, pressure, temperature, barometers, anemometers and hygrometers
- dipsticks and spot test kits
- clocks and timing devices

**Services**

Services include one or more of:

- water supply, gas and electricity
- telecommunications
- irrigation, stormwater and drainage systems
- production plant

<b>Safety procedures</b>	<p>Safety procedures include, but are not limited to, one or more of:</p> <ul style="list-style-type: none"><li>• use of PPE</li><li>• handling, labelling and storing hazardous material and equipment in accordance with labels, MSDS, manufacturer instructions, and workplace procedures and regulations</li><li>• regular cleaning and/or decontamination of equipment</li><li>• use of machinery guards</li><li>• signage, barriers, service isolation tags, traffic control and flashing lights, and lockout and tag out procedures</li></ul>
<b>Minimising environmental impacts</b>	<p>Minimising environmental impacts includes, but is not limited to, one or more of:</p> <ul style="list-style-type: none"><li>• appropriate disposal of surplus, spent or purged materials and hazardous waste</li><li>• recycling of non-hazardous wastes</li><li>• driving vehicles to minimise soil erosion and damage to fauna and vegetation</li><li>• cleaning of vehicles and equipment to prevent transfer of pests and contaminants</li></ul>
<b>WHS and environmental management requirements</b>	<p>WHS and environmental management requirements include:</p> <ul style="list-style-type: none"><li>• complying with WHS and environmental management requirements at all times, which may be imposed through state/territory or federal legislation. These requirements must not be compromised at any time</li><li>• applying standard precautions relating to the potentially hazardous nature of samples</li><li>• accessing and applying current industry understanding of infection control issued by the National Health and Medical Research Council (NHMRC) and State and Territory Departments of Health, where relevant</li></ul>

## Unit Mapping Information

Release 1. Supersedes and is equivalent to MSL972001A Conduct routine site measurements



## Links

Companion Volume implementation guides are found in VETNet -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=5c63a03b-4a6b-4ae5-9560-1e3c5f462baa>

# Assessment Requirements for MSL972001 Conduct routine site measurements

## Modification History

Release 1. Supersedes and is equivalent to MSL972001A Conduct routine site measurements

## Performance Evidence

Evidence of competence in this unit must satisfy all of the requirements of the elements and performance criteria, and include demonstration of:

- safely making a variety of direct measurements at different sites on at least three (3) occasions
- liaising with others to access sites and perform measurements efficiently
- correctly locating measurement points and services at sites
- making measurements to minimise environmental impact and/or disruption to normal site operations
- safely operating instruments and test kits in accordance with workplace procedures and manufacturer instructions
- reading scales/displays accurately and taking sufficient measurements to ensure reliable data
- recording data that is legible, free of errors and has appropriate accuracy, precision and units
- recognising obvious errors/atypical data and using corrective actions, including:
  - logical check of equipment set-up
  - check of calibration, zero error and drift for basic instruments
  - careful re-reading of procedures
  - repeating measurements
  - seeking advice
- maintaining confidentiality and reporting problems and incidents in accordance with procedures
- following workplace procedures for safely conducting site measurements; recording and reporting data and any relevant legal traceability requirements; and maintenance, storage and transport of measurement equipment
- recognising own limitations and seeking timely advice.

## Knowledge Evidence

Must provide evidence that demonstrates knowledge of:

- concepts of metrology, including:
  - all measurements are estimates
  - measurements belong to a population of measurements of the measured parameters

- precision, accuracy and significant figures
- sources of error, uncertainty and repeatability
- traceability
- international system of units (SI)
- purpose of measurements performed as part of job role and the principles of operation for the equipment/instruments used
- sources of uncertainty in measurement and methods for control
- workplace safety procedures associated with measurements undertaken as part of job role; the maintenance, storage and transport of measurement equipment; waste management and handling of dangerous goods
- workplace and/or legal traceability requirements
- procedures for recognising and reporting of unexpected or unusual results
- relevant hazards, work health safety (WHS) and environment requirements.

## Assessment Conditions

- Judgement of competence must be based on holistic assessment of the evidence. Assessment methods must confirm consistency of performance over time, rather than a single assessment event.
- This unit of competency is to be assessed in the workplace or a simulated workplace environment. A simulated workplace environment must reflect realistic operational workplace conditions that cover all aspects of workplace performance, including the environment, task skills, task management skills, contingency management skills and job role environment skills.
- Foundation skills are integral to competent performance of the unit and should not be assessed separately.
- Assessment processes and techniques must be appropriate to the language, literacy and numeracy requirements of the work being performed and the needs of the candidate.
- Knowledge evidence may be collected concurrently with performance evidence or through an independent process, such as workbooks, written assessments or interviews (provided a record is kept in each case).
- This unit of competency may be assessed with:
  - MSL952001 Collect routine site samples
- Holistic assessment methods include:
  - review of the quality of site measurement data and documentation provided by the candidate
  - observation of the candidate performing a range of site measurements
  - feedback from supervisors and clients that relevant procedures were followed and that measurements were conducted in an efficient manner
  - oral/written questioning about workplace procedures for conducting site measurements; maintenance, storage and transport of measurement equipment; waste management and handling of dangerous goods.
- Access is required to instruments, equipment, materials, workplace documentation, procedures and specifications associated with this unit, including, but not limited to:

- a variety of sites and relevant measuring equipment
- safe operating procedures for equipment, site measurement procedures and documented safe work practices.
- Assessors must satisfy the assessor competency requirements that are in place at the time of the assessment as set by the VET regulator.
- The assessor must demonstrate both technical competence and currency.
- Technical competence can be demonstrated through:
  - relevant VET or other qualification/Statement of Attainment AND/OR
  - relevant workplace experience.
- Currency can be demonstrated through:
  - performing the competency being assessed as part of current employment OR
  - having consulted with a laboratory about performing the competency being assessed within the last twelve months.

## Links

Companion Volume implementation guides are found in VETNet -

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## MSL973001 Perform basic tests

### Modification History

Release 1. Supersedes and is equivalent to MSL973001A Perform basic tests

### Application

This unit of competency covers the ability to prepare samples and perform tests and measurements using standard methods with access to readily available advice from supervisors.

This unit of competency is applicable to laboratory/field assistants working in all industry sectors. In general, they do not calibrate equipment and make only limited adjustments to the controls. They do not interpret or analyse results or troubleshoot equipment problems.

While no specific licensing or certification requirements apply to this unit at the time of publication, laboratory operations are governed by relevant legislation, regulations and/or external accreditation requirements. Local requirements should be checked.

### Pre-requisite Unit

Nil

### Competency Field

Testing

### Unit Sector

### Elements and Performance Criteria

Elements describe the essential outcomes.

Performance criteria describe the performance needed to demonstrate achievement of the element.

1	<b>Interpret test requirements</b>	1.1	Review test request to identify samples to be tested, test method and equipment involved
		1.2	Identify hazards and workplace controls associated with the sample, preparation methods, reagents and/or equipment

- |   |   |     |  |
|---|---|-----|--|
| 2 | <b>Prepare sample</b>                   | 2.1 | Record sample description, compare with specification, record and report discrepancies   |
|   |   | 2.2 | Prepare sample in accordance with appropriate standard methods   |
|   |   |     |  |
| 3 | <b>Check equipment before use</b>       | 3.1 | Set up test equipment in accordance with test method   |
|   |   | 3.2 | Perform pre-use and safety checks in accordance with workplace procedures and manufacturer instructions                                      |
|   |   | 3.3 | Identify faulty or unsafe equipment and report to appropriate personnel  |
|   |   | 3.4 | Check calibration status of equipment and report any out-of-calibration items to appropriate personnel                                       |
|   |   |     |  |
| 4 | <b>Perform tests on samples</b>         | 4.1 | Identify, prepare and weigh or measure sample and standards to be tested   |
|   |   | 4.2 | Conduct tests in accordance with workplace procedures  |
|   |   | 4.3 | Record data in accordance with workplace procedures  |
|   |   | 4.4 | Perform calculations on data as required   |
|   |   | 4.5 | Identify and report out of specification or atypical results promptly to appropriate personnel   |
|   |   | 4.6 | Shut down equipment in accordance with operating procedures  |
|   |   |     |  |
| 5 | <b>Maintain a safe work environment</b> | 5.1 | Use established safe work practices and personal protective equipment (PPE) to ensure personal safety and that of other laboratory personnel |
|   |   | 5.2 | Minimise the generation of wastes and environmental impacts  |
|   |   | 5.3 | Ensure safe disposal of laboratory and hazardous wastes  |
|   |   | 5.4 | Clean, care for and store equipment and reagents as  |

required

## Foundation Skills

This section describes those language, literacy, numeracy and employment skills that are essential to performance.

Foundation skills essential to performance are explicit in the performance criteria of this unit of competency.

## Range of Conditions

This field allows for different work environments and conditions that may affect performance. Essential operating conditions that may be present (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) are included.

### **Standards, codes, procedures and/or workplace requirements**

Standards, codes, procedures and/or workplace requirements include the latest version of one or more of:

- Australian and international standards covering the requirements for the competence of testing and calibration laboratories, laboratory safety and quality management
- national work health and safety (WHS) standards and codes of practice, and national measurement regulations and guidelines
- standard methods for basic tests
- workplace documents, such as standard operating procedures (SOPs); quality and equipment manuals; calibration and maintenance schedules; material safety data sheets (MSDS) and safety procedures; material, production and product specifications; production and laboratory schedules, workplace recording and reporting procedures; and waste minimisation and safe disposal procedures

### **Sample preparation**

Sample preparation processes include one or more of:

- sub-sampling or splitting using procedures, such as riffing, coning and quartering, manual and mechanical splitters
- diluting samples
- physical treatments, such as ashing, dissolving, filtration, sieving, centrifugation and comminution
- moulding, casting or cutting specimens

**Typical basic tests carried out by laboratory/field assistants**

Typical basic tests carried out by laboratory/field assistants include, but are not limited to, one or more of:

- visual/optical tests of appearance, such as colour, texture, identity, turbidity and refractive index (alcohol content and Baume/Brix)
- physical tests, such as:
  - density, specific gravity and compacted density
  - moisture content and water activity
  - particle size, particle shape and size distribution
- chemical tests, such as:
  - gravimetric, colorimetric, electrical conductivity (EC) and pH
  - specific ions using dipsticks and kits
  - nutrients (e.g. nitrates and orthophosphates) using kits
  - ashes, including sulphated ashes
- biological/environmental tests, such as:
  - pH, oxygen reduction potential (ORP), dissolved oxygen (DO) and EC
  - E coli using test kits, and surface hygiene/presence of microbes
- packaging tests, such as:
  - tearing resistance, bursting strength and impact resistance
  - permeability and/or leakage
- mechanical tests, such as:
  - Emerson class
  - concrete slump

**Measurements**

Measurements include, but are not limited to, one or more of:

- simple ground surveys
- meteorological parameters, such as wind direction/strength, rainfall, maximum/minimum temperature, humidity and solar radiation
- simple background radiation survey
- production/process parameters, such as temperature, flow and pressure
- gas levels in a confined space

**WHS and environmental management**

WHS and environmental management requirements include:

- complying with WHS and environmental management requirements at all times, which may be imposed through



**requirements**

state/territory or federal legislation. These requirements must not be compromised at any time

- applying standard precautions relating to the potentially hazardous nature of samples
- accessing and applying current industry understanding of infection control issued by the National Health and Medical Research Council (NHMRC) and State and Territory Departments of Health, where relevant

## Unit Mapping Information

Release 1. Supersedes and is equivalent to MSL973001A Perform basic tests

## Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=5c63a03b-4a6b-4ae5-9560-1e3c5f462baa>

# Assessment Requirements for MSL973001 Perform basic tests

## Modification History

Release 1. Supersedes and is equivalent to MSL973001A Perform basic tests

## Performance Evidence

Evidence of competence in this unit must satisfy all of the requirements of the elements and performance criteria, and include demonstration of:

- accurately interpreting workplace procedures and standard methods
- preparing samples using at least three (3) different processes
- performing at least five (5) basic tests or measurements using standard methods and procedures
- checking test equipment before use
- completing all tests within the required timeline without sacrificing safety, accuracy or quality
- demonstrating close attention to the accuracy and precision of measurements and the data obtained
- calculating simple quantities using appropriate equations, units, uncertainties and precision
- recording and presenting results accurately and legibly
- maintaining the security, integrity and traceability of all samples, data/results and documentation
- following procedures for working safely and minimising environmental impacts.

## Knowledge Evidence

Must provide evidence that demonstrates knowledge of:

- concepts of metrology, including:
  - all measurements are estimates
  - measurements belong to a population of measurements of the measured parameters
  - precision, accuracy and significant figures
  - sources of error, uncertainty and repeatability
  - traceability
- international system of units (SI)
- purpose of tests performed as part of job role and principles of the standard methods/specifications used
- function of key components of the test equipment, pre-use equipment and safety checks
- sources of uncertainty in measurement and methods for control
- workplace and/or legal traceability requirements
- interpretation and recording of test result, including simple calculations

- procedures for recognising and reporting of unexpected or unusual results
- relevant hazards, work health safety (WHS) and environment requirements.

## Assessment Conditions

- Judgement of competence must be based on holistic assessment of the evidence. Assessment methods must confirm consistency of performance over time, rather than a single assessment event.
- This unit of competency is to be assessed in the workplace or a simulated workplace environment. A simulated workplace environment must reflect realistic operational workplace conditions that cover all aspects of workplace performance, including the environment, task skills, task management skills, contingency management skills and job role environment skills.
- Foundation skills are integral to competent performance of the unit and should not be assessed separately.
- Assessment processes and techniques must be appropriate to the language, literacy and numeracy requirements of the work being performed and the needs of the candidate.
- Knowledge evidence may be collected concurrently with performance evidence or through an independent process, such as workbooks, written assessments or interviews (provided a record is kept in each case).
- This unit of competency may be assessed with:
  - MSL922001 Record and present data
- Holistic assessment methods include:
  - review of the quality of test data/results achieved by the candidate over time
  - inspection of records and workplace documentation completed by the candidate
  - observation of the candidate performing a range of basic tests
  - feedback from peers and supervisors
  - oral or written questioning to check required knowledge of basic test procedures.
- Access is required to instruments, equipment, materials, workplace documentation, procedures and specifications associated with this unit, including, but not limited to:
- a standard laboratory equipped with basic test equipment, common measuring instruments, materials, standard methods, workplace procedures, MSDS and equipment manuals.
- Assessors must satisfy the assessor competency requirements that are in place at the time of the assessment as set by the VET regulator.
- The assessor must demonstrate both technical competence and currency.
- Technical competence can be demonstrated through:
  - relevant VET or other qualification/Statement of Attainment AND/OR
  - relevant workplace experience.
- Currency can be demonstrated through:
  - performing the competency being assessed as part of current employment OR
  - having consulted with a laboratory about performing the competency being assessed within the last twelve months.

## Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=5c63a03b-4a6b-4ae5-9560-1e3c5f462baa>

## MSL973013 Perform basic tests

### Modification History

Release	Comments
Release 1	<p>This version was released in <i>MSL Laboratory Operations Training Package Release 2.0</i>.</p> <p>Supersedes and equivalent to MSL973001 Perform basic tests. Foundation skills information added. Range of conditions removed. Assessment requirements amended.</p>

### Application

This unit of competency describes the skills and knowledge to prepare samples and perform tests and measurements using standard methods with access to readily available advice from supervisors.

This unit of competency applies to laboratory/field assistants working in all industry sectors. In general, they do not calibrate equipment and make only limited adjustments to the controls. They do not interpret or analyse results or troubleshoot equipment problems.

No licensing or certification requirements exist at the time of publication. However, regulations and/or external accreditation requirements for laboratory operations exist, so local requirements should be checked. Relevant legislation, industry standards and codes of practice within Australia must also be applied.

### Pre-requisite Unit

Nil

### Competency Field

Testing

### Elements and Performance Criteria

Elements describe the essential outcomes.

Performance criteria describe the performance needed to demonstrate achievement of the element.

Elements describe the essential outcomes.		Performance criteria describe the performance needed to demonstrate achievement of the element.	
1	<b>Interpret test requirements</b>	1.1	Review test request to identify samples to be tested, test method and equipment involved
		1.2	Identify hazards and workplace controls associated with the sample, preparation methods, reagents and/or equipment
2	<b>Prepare sample</b>	2.1	Record sample description, compare with specification, record and report discrepancies
		2.2	Prepare sample in accordance with appropriate standard methods
3	<b>Check equipment before use</b>	3.1	Set up test equipment in accordance with test method
		3.2	Perform pre-use and safety checks in accordance with workplace procedures and manufacturer instructions
		3.3	Identify faulty or unsafe equipment and report to appropriate personnel
		3.4	Check calibration status of equipment and report any out-of-calibration items to appropriate personnel
4	<b>Perform tests on samples</b>	4.1	Identify, prepare and weigh or measure sample and standards to be tested
		4.2	Conduct tests in accordance with workplace procedures
		4.3	Record data in accordance with workplace procedures
		4.4	Perform calculations on data as required
		4.5	Identify and report out of specification or atypical results promptly to appropriate personnel
		4.6	Shut down equipment in accordance with operating procedures
5	<b>Maintain a safe work environment</b>	5.1	Use established safe work practices and personal protective equipment (PPE) to ensure personal safety and that of other laboratory personnel
		5.2	Minimise the generation of wastes and environmental impacts
		5.3	Ensure safe disposal of laboratory and hazardous wastes

Elements describe the essential outcomes.

Performance criteria describe the performance needed to demonstrate achievement of the element.

5.4 Clean, care for and store equipment and reagents as required

## Foundation Skills

This section describes those language, literacy, numeracy and employment skills that are essential to performance.

- Numeracy skills to calculate simple quantities using appropriate equations, units, uncertainties and precision

Other foundation skills essential to performance are explicit in the performance criteria of this unit.

## Unit Mapping Information

Release 1. Supersedes MSL973001 Perform basic tests.

## Links

MSL Laboratory Operations Companion Volume Implementation Guide is available from VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=5c63a03b-4a6b-4ae5-9560-1e3c5f462baa>

## Assessment Requirements for MSL973013 Perform basic tests

### Modification History

Release	Comments
Release 1	<p>This version was released in <i>MSL Laboratory Operations Training Package Release 2.0</i>.</p> <p>Supersedes and equivalent to MSL973001 Perform basic tests. Foundation skills information added. Range of conditions removed. Assessment requirements amended.</p>

### Performance Evidence

There must be evidence the candidate has completed the tasks outlined in the elements and performance criteria of this unit, and:

- prepared samples using different processes
- performed at least 3 basic tests or measurements using standard methods and procedures.

### Knowledge Evidence

There must be evidence the candidate has knowledge of:

- concepts of metrology, including:
  - all measurements are estimates
  - measurements belong to a population of measurements of the measured parameters
  - precision, accuracy and significant figures
  - sources of error, uncertainty and repeatability
  - traceability
- international system of units (SI)
- purpose of tests performed as part of job role and principles of the standard methods/specifications used
- sample preparation processes relevant to job role
- typical basic tests and methods relevant to job role
- measurements used for typical tests
- function of key components of the test equipment, pre-use equipment and safety checks
- sources of uncertainty in measurement and methods for control
- workplace and/or legal traceability requirements
- interpretation and recording of test result, including simple calculations
- procedures for recognising and reporting of unexpected or unusual results
- legal, ethical and work health and safety (WHS) requirements specific to the work task.



## Assessment Conditions

Skills must have been demonstrated in the workplace or in a simulated environment that reflects workplace conditions and contingencies. The following conditions must be met for this unit:

- use of suitable facilities, equipment and resources, including:
  - a standard laboratory equipped with basic test equipment, common measuring instruments, materials, standard methods, workplace procedures, SDS and equipment manuals.

Assessors must satisfy the NVR/AQTF mandatory competency requirements for assessors.

## Links

MSL Laboratory Operations Companion Volume Implementation Guide is available from VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=5c63a03b-4a6b-4ae5-9560-1e3c5f462baa>

## MSL973014 Prepare working solutions

### Modification History

Release	Comments
Release 1	<p>This version was released in <i>MSL Laboratory Operations Training Package Release 2.0</i>.</p> <p>Supersedes and equivalent to MSL973002 Prepare working solutions. Changes to elements and performance criteria. Range of conditions removed. Assessment requirements amended.</p>

### Application

This unit of competency describes the skills and knowledge to prepare working solutions and to check that existing stocks of solutions are suitable for use. Working solutions include those required to perform laboratory tests. Personnel are required to calculate quantities and make dilutions.

This unit of competency applies to laboratory assistants working in all industry sectors.

No licensing or certification requirements exist at the time of publication. However, regulations and/or external accreditation requirements for laboratory operations exist, so local requirements should be checked. Relevant legislation, industry standards and codes of practice within Australia must also be applied.

### Pre-requisite Unit

Nil

### Competency Field

Testing

### Elements and Performance Criteria

Elements describe the essential outcomes.

Performance criteria describe the performance needed to demonstrate achievement of the element.

- |   |                        |     |   |
|---|------------------------|-----|---|
| 1 | <b>Make up working</b> | 1.1 | Identify the relevant standard methods for solution |
|---|------------------------|-----|---|

Elements describe the essential outcomes.		Performance criteria describe the performance needed to demonstrate achievement of the element.	
	<b>solutions</b>		preparation
		1.2	Assemble specified laboratory equipment
		1.3	Select and prepare materials and solvent of specified purity
		1.4	Measure appropriate quantities of reagents for solution preparation and record data
		1.5	Prepare labels and log solution details in laboratory register
		1.6	Transfer solutions to appropriately labelled containers
2	<b>Check existing stock of solutions</b>	2.1	Monitor shelf life of working solutions and identify those that are unfit for use according to laboratory procedures
		2.2	Replace out-of-date or reject solutions according to laboratory procedures
3	<b>Maintain a safe work environment</b>	3.1	Use appropriate safety procedures and personal protective equipment (PPE) to ensure personal safety and that of other laboratory personnel
		3.2	Store reagents and clean/store glassware and equipment in accordance with workplace procedures
		3.3	Minimise generation of waste and environmental impacts
		3.4	Clean up spills using appropriate techniques
		3.5	Ensure the safe collection of laboratory and hazardous waste for subsequent disposal

## Foundation Skills

This section describes those language, literacy, numeracy and employment skills that are essential to performance.

Foundation skills essential to performance are explicit in the performance criteria of this unit of competency.

## Unit Mapping Information

Equivalent to MSL973002 Prepare working solutions, Release 1.

## Links

MSL Laboratory Operations Companion Volume Implementation Guide is available from VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=5c63a03b-4a6b-4ae5-9560-1e3c5f462baa>

# Assessment Requirements for MSL973014 Prepare working solutions

## Modification History

Release	Comments
Release 1	<p>This version was released in <i>MSL Laboratory Operations Training Package Release 2.0</i>.</p> <p>Supersedes and equivalent to MSL973002 Prepare working solutions. Changes to elements and performance criteria. Range of conditions removed. Assessment requirements amended.</p>

## Performance Evidence

There must be evidence the candidate has completed the tasks outlined in the elements and performance criteria of this unit, and:

- safely prepared at least 5 examples of correctly labelled working solutions, including calculation of the quantities involved and any dilutions required
- checked existing stocks of working solutions and identified those unfit for use.

## Knowledge Evidence

There must be evidence the candidate has knowledge of:

- concepts of metrology, including:
  - all measurements are estimates
  - precision, accuracy and significant figures
  - sources of error, uncertainty and repeatability
  - traceability
- working solutions
- international system of units (SI)
- concentration terms, such as % w/w, % w/v, % v/v, ppm (mg/L) and molarity
- basic theory of acids, bases, salts, buffers and neutralisation
- what affects solubility
- difference between aqueous and organic solutions
- periodic table, symbols of the elements, atomic weights, and difference between elements and compounds
- chemical formulae
- workplace procedures for preparing solutions
- calculations required to prepare specified amounts of solutions of specified concentration

- use of safety data sheets (SDS) and workplace procedures for preparing, handling and disposing of solutions and cleaning up spillages
- awareness of environmental sustainability issues as they relate to the work task
- legal, ethical and work health and safety (WHS) requirements specific to the work task.

## Assessment Conditions

Skills must have been demonstrated in the workplace or in a simulated environment that reflects workplace conditions and contingencies. The following conditions must be met for this unit:

- use of suitable facilities, equipment and resources, including:
  - a standard laboratory equipped with appropriate reagents and equipment
  - standard methods and workplace procedures
  - containers and storage facilities.

Assessors must satisfy the NVR/AQTF mandatory competency requirements for assessors.

## Links

MSL Laboratory Operations Companion Volume Implementation Guide is available from VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=5c63a03b-4a6b-4ae5-9560-1e3c5f462baa>

## MSL973015 Prepare culture media

### Modification History

Release	Comments
Release 1	<p>This version was released in <i>MSL Laboratory Operations Training Package Release 2.0</i>.</p> <p>Supersedes and equivalent to MSL973003 Prepare culture media. Changes to performance criteria. Range of conditions removed. Assessment requirements amended.</p>

### Application

This unit of competency describes the skills and knowledge to prepare culture media which is free of contamination to facilitate optimal growth of organisms and cells. It includes the ability to organise the materials, equipment and work environment and follow standard methods. Media may be prepared from formulated powders obtained from microbiological companies or by first principles under supervision of a technical officer or scientist.

This unit of competency applies to laboratory assistants in the biomedical, biological, environmental, food processing and pharmaceutical industry sectors.

No licensing or certification requirements exist at the time of publication. However, regulations and/or external accreditation requirements for laboratory operations exist, so local requirements should be checked. Relevant legislation, industry standards and codes of practice within Australia must also be applied.

### Pre-requisite Unit

Nil

### Competency Field

Testing

### Elements and Performance Criteria

Elements describe the essential outcomes.

Performance criteria describe the performance needed to demonstrate achievement of the element.

Elements describe the essential outcomes.		Performance criteria describe the performance needed to demonstrate achievement of the element.	
<b>1</b>	<b>Prepare culture media</b>	1.1	Prepare mixture of media and solvent to ensure solution and even settling of heat soluble materials
		1.2	Label media to allow tracking in subsequent processes
		1.3	Use a vessel large enough to endure adequate mixing and heating of the media
		1.4	Check pH of media where pH is critical
		1.5	Dispense media into vessels for sterilisation, leaving room for expansion during heating and cooling
<b>2</b>	<b>Sterilise media</b>	2.1	Load the steriliser in keeping with maximum permitted loads and appropriate positioning of materials
		2.2	Ensure a sterilisation indicator is correctly placed with the load to monitor sterilisation process
		2.3	Operate sterilisation cycle in accordance with manufacturer requirements to achieve sterilisation at the required settings
		2.4	Cool media to the temperature specified in the media formulation procedures
		2.5	Sterilise media and/or media additives using membrane filtration techniques
<b>3</b>	<b>Dispense or aliquote media</b>	3.1	Add labile constituents where necessary, under conditions that will not lead to their denaturation or contamination of media
		3.2	Ensure even mixing of additives and media before dispensing
		3.3	Aseptically dispense media to minimise occurrence of procedural contamination
		3.4	Label media to allow for selection, avoiding areas of the culture vessel required for examination of colony growth
<b>4</b>	<b>Label media</b>	4.1	Date batch media to ensure correct batch rotation
		4.2	Label media to allow for selection, avoiding areas of the



Elements describe the essential outcomes.		Performance criteria describe the performance needed to demonstrate achievement of the element.	
		culture vessel required for examination of colony growth	
		4.3	Maintain records of batches of media
<b>5</b>	<b>Store and incubate media</b>	5.1	Incubate control plates as a sterility check
		5.2	Store media to maximise shelf life and minimise contamination
<b>6</b>	<b>Perform quality control checks</b>	6.1	Inspect media for any evidence of possible contamination or problems with structure or sterilisation
		6.2	Check useability of selective media by growth of expected organism
		6.3	Check stored stocks at regular intervals for conformance to required standards
<b>7</b>	<b>Maintain work area and equipment to prevent cross-infection and contamination</b>	7.1	Use personal protective equipment (PPE) and safe work practices to ensure personal safety and that of other laboratory personnel
		7.2	Place disposable and reusable items into relevant receptacles
		7.3	Clean and disinfect work area and equipment after use
		7.4	Transport disposable and reusable contaminated materials to relevant areas for disinfection, sterilisation and cleaning or disposal

## Foundation Skills

This section describes those language, literacy, numeracy and employment skills that are essential to performance.

Foundation skills essential to performance are explicit in the performance criteria of this unit of competency.

## Unit Mapping Information

Equivalent to MSL973003 Prepare culture media, Release 1.

## Links

MSL Laboratory Operations Companion Volume Implementation Guide is available from VETNet -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=5c63a03b-4a6b-4ae5-9560-1e3c5f462baa>

## Assessment Requirements for MSL973015 Prepare culture media

### Modification History

Release	Comments
Release 1	<p>This version was released in <i>MSL Laboratory Operations Training Package Release 2.0</i>.</p> <p>Supersedes and equivalent to MSL973003 Prepare culture media. Changes to performance criteria. Range of conditions removed. Assessment requirements amended.</p>

### Performance Evidence

There must be evidence the candidate has completed the tasks outlined in the elements and performance criteria of this unit, and:

- effectively used standard methods to safely prepare at least 3 different batches of culture media that meet specifications and are free of contamination, including:
  - using appropriate sterilisation techniques, including maintaining adequate space between containers to prevent cross-contamination
  - performing quality assurance checks on media, including streaking out of cultures to a single colony
- effectively operated a pH meter.

### Knowledge Evidence

There must be evidence the candidate has knowledge of:

- basic microbiological concepts and terminology, including growth rates in culture, and production of gas and haemolysis of red cells in media
- growth requirements of cells including microorganisms and tissue cells in terms of their laboratory culture
- purpose, content and features of culture media prepared in job role, and the relationship between the correct preparation of culture media and the optimal growth of organisms or cells
- nature, properties and use of a range of biological media
- cell culture:
  - agars, broths and solutions
  - slopes and deeps
  - common enriched media, differential media and selective media
  - common tissue culture media and transport media

- labile constituents including blood, hormones or antibiotics
- sterilisation techniques:
  - boiling, high temperature, high pressure steam and autoclaving
  - membrane filtration
  - radiation, gas and/or chemical treatments
- relationship between sterile practices, hygiene procedures and the ability to obtain growth free of contamination
- the effect of physical requirements including pH and temperature on optimal growth of organisms and cells
- the effect of inappropriate storage on culture media quality and performance
- relevant hazards and how to deal with the risks presented:
  - microorganisms and reagents
  - sharps and broken glassware
  - sources of heat including ovens and burners
  - fluids under pressure including steam from autoclaves
  - UV radiation
- awareness of environmental sustainability issues as they relate to the work task
- legal, ethical and work health and safety (WHS) requirements specific to the work task.

## Assessment Conditions

Skills must have been demonstrated in the workplace or in a simulated environment that reflects workplace conditions and contingencies. The following conditions must be met for this unit:

- use of suitable facilities, equipment and resources, including:
  - a standard laboratory equipped with appropriate reagents and equipment, including pH meters; balances; stirrers, water baths and hot plates; burners, autoclave; measuring cylinders, flasks and glassware; Petri dishes; media storage bottles; self-refilling syringes; membrane filtration equipment; labelling equipment; distilled water apparatus; refrigerators; sterilisation equipment and indicators
  - workplace schedules and procedures, SDS and documented safe work practices.

Assessors must satisfy the NVR/AQTF mandatory competency requirements for assessors.

## Links

MSL Laboratory Operations Companion Volume Implementation Guide is available from VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=5c63a03b-4a6b-4ae5-9560-1e3c5f462baa>

## MSL973016 Perform aseptic techniques

### Modification History

Release	Comments
Release 1	<p>This version was released in <i>MSL Laboratory Operations Training Package Release 2.0</i>.</p> <p>Supersedes and equivalent to MSL973004 Perform aseptic techniques. Changes to performance criteria. Range of conditions removed. Assessment requirements amended.</p>

### Application

This unit of competency describes the skills and knowledge to perform aseptic techniques to maintain the integrity of both the sample source and the sample. It applies to sampling techniques in tissue culture and to generic microbiological procedures.

This unit of competency applies to laboratory assistants and technicians working in the field or laboratory in the biomedical, biological, food processing and environmental industry sectors.

No licensing or certification requirements exist at the time of publication. However, regulations and/or external accreditation requirements for laboratory operations exist, so local requirements should be checked. Relevant legislation, industry standards and codes of practice within Australia must also be applied.

### Pre-requisite Unit

Nil

### Competency Field

Testing

### Elements and Performance Criteria

Elements describe the essential outcomes.

Performance criteria describe the performance needed to demonstrate achievement of the element.

Elements describe the essential outcomes.		Performance criteria describe the performance needed to demonstrate achievement of the element.	
1	<b>Prepare for aseptic sampling or transfer</b>	1.1	Check the sampling procedure conforms with the required sampling plan
		1.2	Use specified personal protective equipment (PPE)
		1.3	Prepare the work area for safe and effective sample transfer
		1.4	Select equipment and materials specified by the procedure
		1.5	Organise equipment to minimise contamination during manipulations
		1.6	Label containers for clear identification
		1.7	Record details in relevant log or database
		1.8	Macroscopically assess media and/or reagents to confirm sterility before use
2	<b>Transfer materials aseptically</b>	2.1	Protect the integrity of the sample source
		2.2	Sterilise inoculating loops and/or pipette where used to prevent contamination
		2.3	Perform transfer while minimising opportunities for contamination and cross-infection
		2.4	Protect the integrity of the sample source and destination after transfer, and before sealing the transport or culture vessel
		2.5	Re-sterilise inoculating loops, minimising the generation of aerosols as required
		2.6	Perform quality control checks to confirm aseptic transfer was successful
		2.7	Label transport or culture vessels for clear identification
3	<b>Maintain work area and equipment to prevent cross-infection and</b>	3.1	Place disposable and reusable items into relevant receptacles
		3.2	Clean and disinfect work area and equipment after use
		3.3	Transport disposable and reusable contaminated

Elements describe the essential outcomes.

**contamination**

Performance criteria describe the performance needed to demonstrate achievement of the element.

materials to relevant areas for disinfection, sterilisation and cleaning or disposal

3.4 Follow personal hygiene procedures

## Foundation Skills

This section describes those language, literacy, numeracy and employment skills that are essential to performance.

Foundation skills essential to performance are explicit in the performance criteria of this unit of competency.

## Unit Mapping Information

Equivalent to MSL973004 Perform aseptic techniques, Release 1.

## Links

MSL Laboratory Operations Companion Volume Implementation Guide is available from VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=5c63a03b-4a6b-4ae5-9560-1e3c5f462baa>

# Assessment Requirements for MSL973016 Perform aseptic techniques

## Modification History

Release	Comments
Release 1	<p>This version was released in <i>MSL Laboratory Operations Training Package Release 2.0</i>.</p> <p>Supersedes and equivalent to MSL973004 Perform aseptic techniques. Changes to performance criteria. Range of conditions removed. Assessment requirements amended.</p>

## Performance Evidence

There must be evidence the candidate has completed the tasks outlined in the elements and performance criteria of this unit, and:

- safely and effectively performed aseptic techniques when performing at least 3 different types of sample transfers from the following list:
  - body fluids (or simulated body fluids)
  - sterile liquid culture media
  - water
  - soil
  - sterile pharmaceuticals
  - yeasts and moulds
  - milk and yoghurt
  - swabs and smears
  - propagation tissue
  - plant material
  - fermented foods
  - fermented beverages
  - bacterial cultures.

## Knowledge Evidence

There must be evidence the candidate has knowledge of:

- growth requirements of microorganisms including bacteria and fungi in terms of their laboratory culture



- relationship between sterile practices, hygiene procedures and the ability to obtain growth free of contamination
- relationship between sterile practices and accurate test results
- importance of pure culture techniques and aseptic transfer to the successful microbiological investigation and correct interpretation of laboratory results
- cleaning and sanitising requirements of equipment and work area, and effects of physical and chemical agents on microbial growth and death
- sterilisation techniques:
  - flaming
  - high temperature, boiling and autoclaving
  - membrane filtration
  - radiation, gas and/or chemical treatments
- disinfection and sterilisation procedures used in the collection, processing and safe disposal of samples and materials
- principles of infection control related to work health and safety (WHS), and sampling and transfer of materials in microbiological investigations including how to minimise the generation of aerosols when flaming
- relevant hazards and how to deal with the risks presented:
  - injuries from sharps, burners, molten agar
  - ultraviolet (UV) light sources
  - exposure to hazardous substances and/or infectious agents
- awareness of environmental sustainability issues as they relate to the work task
- legal, ethical and WHS requirements specific to the work task.

## Assessment Conditions

Skills must have been demonstrated in the workplace or in a simulated environment that reflects workplace conditions and contingencies. The following conditions must be met for this unit:

- use of suitable facilities, equipment and resources, including:
  - a standard laboratory
  - test samples
  - appropriate equipment, including:
    - transfer equipment, such as inoculating loops, pipettes (quantitative and qualitative), flasks, tubes and spatulas
    - Sterilisation equipment such as bunsen burners, bench incinerators, autoclave and/or pressure cooker
    - Storage equipment such as incubators, water baths, refrigerators, freezers, anaerobic jars as required
    - laminar flow units or biohazard cabinets as required
    - swabs
  - appropriate materials, including:

- solid and/or liquid media
- disinfecting and sterilising agents
- consumables
- receptacles for safe disposal of wastes and for processing of reusable materials
- bar coding material and labels
- workplace schedules, procedures and standard methods, SDS and documented safe work practices.

Assessors must satisfy the NVR/AQTF mandatory competency requirements for assessors.

## Links

MSL Laboratory Operations Companion Volume Implementation Guide is available from VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=5c63a03b-4a6b-4ae5-9560-1e3c5f462baa>

## MSL973019 Perform microscopic examination

### Modification History

Release	Comments
Release 1	<p>This version was released in <i>MSL Laboratory Operations Training Package Release 2.0</i>.</p> <p>Supersedes and equivalent to MSL973007 Perform microscopic examination. Foundation skill information added. Range of conditions removed. Assessment requirements amended.</p>

### Application

This unit of competency describes the skills and knowledge to set up a light microscope for optimum resolution, to prepare routine samples and to observe, identify and report sample characteristics.

This unit of competency applies to laboratory or technical assistants in all industry sectors. The unit of competency covers limited interpretation and analysis of results. Troubleshooting of equipment and procedures is not required.

No licensing or certification requirements exist at the time of publication. However, regulations and/or external accreditation requirements for laboratory operations exist, so local requirements should be checked. Relevant legislation, industry standards and codes of practice within Australia must also be applied.

### Pre-requisite Unit

Nil

### Competency Field

Testing

### Elements and Performance Criteria

Elements describe the essential outcomes.

Performance criteria describe the performance needed to demonstrate achievement of the element.

- |   |  |     |   |
|---|--|-----|---|
| 1 | <b>Prepare samples for examination</b>             | 1.1 | Log and label samples according to workplace procedures to ensure traceability                        |
|   |  | 1.2 | Follow documented standard operating procedures to prepare samples for microscopic examination        |
| 2 | <b>Set up and use a light microscope</b>           | 2.1 | Carry and use a microscope correctly preventing damage to the equipment and ensuring operator safety  |
|   |  | 2.2 | Perform pre-use and safety checks to ensure equipment is fit for purpose                              |
|   |  | 2.3 | Check lenses to ensure they are clean   |
|   |  | 2.4 | Set up the microscope for optimum resolution and even illumination                                    |
|   |  | 2.5 | Select the appropriate objectives and filter for the sample being examined                            |
|   |  | 2.6 | Place sample correctly on the stage   |
| 3 | <b>Observe and identify sample characteristics</b> | 3.1 | Recognise and identify significant sample characteristics   |
|   |  | 3.2 | Perform required calculations accurately  |
| 4 | <b>Maintain a safe work environment</b>            | 4.1 | Ensure safety and minimise cross-contamination through the use of personal protective equipment (PPE) |
|   |  | 4.2 | Handle all samples and equipment in accordance with workplace safety protocols                        |
|   |  | 4.4 | Minimise generation of waste and environmental impacts  |
|   |  | 4.5 | Collect and dispose of all wastes safely  |

## Foundation Skills

This section describes those language, literacy, numeracy and employment skills that are essential to performance.

- Numeracy skills to:
  - perform counts on samples using grids
  - take basic measurements
  - perform accurate calculations as required by the method, including:
    - dilutions
    - number of cells in original sample after dilution
    - calculation of cells/ml in a number of squares of a counting chamber
  - interpret and record test results reliably
  - log and track samples through all steps from sample receipt to completion of the examination and reporting.

Other foundation skills essential to performance are explicit in the performance criteria of this unit.

## Unit Mapping Information

Equivalent to MSL973007 Perform microscopic examination, Release 1.

## Links

MSL Laboratory Operations Companion Volume Implementation Guide is available from VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=5c63a03b-4a6b-4ae5-9560-1e3c5f462baa>

# Assessment Requirements for MSL973019 Perform microscopic examination

## Modification History

Release	Comments
Release 1	<p>This version was released in <i>MSL Laboratory Operations Training Package Release 2.0</i>.</p> <p>Supersedes and equivalent to MSL973007 Perform microscopic examination. Foundation skill information added. Range of conditions removed. Assessment requirements amended.</p>

## Performance Evidence

There must be evidence the candidate has completed the tasks outlined in the elements and performance criteria of this unit, and:

- set up a microscope for köhler illumination on 10x, 40x and 100x magnification on at least 3 occasions
- safely prepared and focused on at least 3 different sample types for examination with a compound light microscope including 3 from the following list:
  - preparing and staining a smear or film with a monolayer of cells
  - preparing a wet mount
  - loading a sample into a counting chamber
  - preparing hand cut samples
- observed, identified and reported the microscopic characteristics of at least 2 different sample types including at least 1 from the following list:
  - intact living or non-living organism
  - fixed and stained cells
  - wet mount
- taken basic measurements
- performed a count using a grid
- performed accurate calculations as required by the method, including:
  - dilutions
  - number of cells in original sample after dilution
  - calculation of cells/volume based cell counts.

## Knowledge Evidence

There must be evidence the candidate has knowledge of:

- nature of samples, sample preparation methods, methods of examination and associated hazards
- parts and functions of a light microscope and steps taken to optimise the resolution of images
- procedures and reporting requirements for spills, faulty or unsafe equipment, hazards and incidents
- types of samples relating to job role
- causes and basic troubleshooting of common artefacts or incorrect results in microscopy
- vernier measurement and micrometry techniques
- sample characteristics restricted to what can be viewed by light microscopy:
  - shape and size of particles
  - presence of contamination
  - colour
  - consistency and variability
  - number of cells (e.g. cells in blood or other particulate samples, such as a yeast suspension or pollen grains)
  - type of cells
  - colour/staining and morphology
- applications of different types of microscopes/setups including compound light, dark field, phase contrast, fluorescent, electron, polarising and stereomicroscope (dissecting)
- awareness of environmental sustainability issues as they relate to the work task
- traceability requirements
- legal, ethical and work health and safety (WHS) requirements specific to the work task.

## Assessment Conditions

Skills must have been demonstrated in the workplace or in a simulated environment that reflects workplace conditions and contingencies. The following conditions must be met for this unit:

- use of suitable facilities, equipment and resources, including:
  - a standard laboratory equipped with appropriate equipment, including light microscopes and samples
  - workplace procedures, standard methods and materials
  - a light microscope.

Assessors must satisfy the NVR/AQTF mandatory competency requirements for assessors.

## Links

MSL Laboratory Operations Companion Volume Implementation Guide is available from VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=5c63a03b-4a6b-4ae5-9560-1e3c5f462baa>





## MSL974017 Prepare, standardise and use solutions

### Modification History

Release	Comments
Release 1	<p>This version was released in <i>MSL Laboratory Operations Training Package Release 2.0</i>.</p> <p>Supersedes and equivalent to MSL974001 Prepare, standardise and use solutions. Foundation skill information added. Range of conditions removed. Assessment requirements amended.</p>

### Application

This unit of competency describes the skills and knowledge to prepare, standardise and monitor the quality of solutions.

This unit of competency applies to laboratory technicians working in all industry sectors.

No licensing or certification requirements exist at the time of publication. However, regulations and/or external accreditation requirements for laboratory operations exist, so local requirements should be checked. Relevant legislation, industry standards and codes of practice within Australia must also be applied.

### Pre-requisite Unit

Nil

### Competency Field

Testing

### Elements and Performance Criteria

Elements describe the essential outcomes.

Performance criteria describe the performance needed to demonstrate achievement of the element.

- |   |                          |     |   |
|---|--------------------------|-----|---|
| 1 | <b>Prepare solutions</b> | 1.1 | Select appropriate procedure for solution preparation |
|   |                          | 1.2 | Select equipment, materials and solvent of specified  |

- purity
- 1.3 Measure appropriate quantities of reagents for solution preparation and record data
  - 1.4 Select and assemble specified laboratory equipment and appropriate grade of glassware
  - 1.5 Perform specified dilutions
  - 1.6 Prepare solutions to achieve homogeneous mix of the specified concentration
  - 1.7 Label and store solutions to maintain identity and stability
- 2     **Standardise and use volumetric solutions**
- 2.1 Assemble appropriate laboratory equipment
  - 2.2 Perform serial dilutions as required
  - 2.3 Standardise the solution to the required specified range and precision
  - 2.4 Label and store solutions to maintain identity and stability
  - 2.5 Use standard volumetric solutions to determine concentration of unknown solutions
- 3     **Calculate and record data**
- 3.1 Calculate specified concentrations
  - 3.2 Use authorised procedure if data is to be modified
  - 3.3 Estimate and document uncertainty of measurement in accordance with workplace procedures
  - 3.4 Record all relevant details according to laboratory procedures and report results
  - 3.5 Report concentration with appropriate units
- 4     **Monitor the quality of laboratory**
- 4.1 Check solutions for visual deterioration and expiry date
  - 4.2 Record details and label solutions according to

solutions		laboratory procedures	
5	<b>Maintain a safe work environment</b>	5.1	Use established safe work practices and personal protective equipment (PPE) to ensure personal safety and that of other laboratory personnel
		5.2	Clean up spills using appropriate techniques to protect personnel, work area and environment
		5.3	Minimise generation of waste and environmental impacts
		5.4	Ensure the safe collection of laboratory and hazardous waste for subsequent disposal
		5.5	Store equipment and reagents as required

## Foundation Skills

This section describes those language, literacy, numeracy and employment skills that are essential to performance.

- Numeracy skills to:
  - select and use primary and secondary standards and indicators
  - determine equivalence points using indicators and graphical methods
  - calculate the concentration of the solution with appropriate units and uncertainties given the chemical reaction for the titration
  - recognise control results that are not within acceptable range.

Other foundation skills essential to performance are explicit in the performance criteria of this unit.

## Unit Mapping Information

Equivalent to MSL974001 Prepare, standardise and use solutions, Release 1.

## Links

MSL Laboratory Operations Companion Volume Implementation Guide is available from VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=5c63a03b-4a6b-4ae5-9560-1e3c5f462baa>

## Assessment Requirements for MSL974017 Prepare, standardise and use solutions

### Modification History

Release	Comments
Release 1	<p>This version was released in <i>MSL Laboratory Operations Training Package Release 2.0</i>.</p> <p>Supersedes and equivalent to MSL974001 Prepare, standardise and use solutions. Foundation skill information added. Range of conditions removed. Assessment requirements amended.</p>

### Performance Evidence

There must be evidence the candidate has completed the tasks outlined in the elements and performance criteria of this unit, and:

- prepared and effectively standardised at least 3 different solutions in accordance workplace procedures and/or standard methods
- selected and used primary and secondary standards and indicators
- determined equivalence points using indicators and graphical methods.

### Knowledge Evidence

There must be evidence the candidate has knowledge of:

- concepts of metrology, including:
  - all measurements are estimates
  - precision, accuracy and significant figures
  - sources of error, uncertainty and repeatability
  - traceability
- scientific terminology for different types of solutions
- the chemistry of acids, bases, buffers and redox reactions
- chemical symbols and atomic mass
- formulae for calculating concentration % w/w, % w/v, % v/v, ppm (mg/L)
- moles and molarity
- what affects solubility
- reactions used for standardisation and desirable characteristics
- function and use of basic laboratory equipment
- grades of glassware, reagents and their use
- established safe work practices:

- use of PPE, such as safety glasses, gloves and coveralls
- correctly labelling reagents and hazardous materials
- handling and storing hazardous material and equipment in accordance with labels, SDS, manufacturer instructions, and workplace procedures and regulations
- regular cleaning and/or decontamination of equipment and work areas
- prompt clean-up of spills in accordance workplace procedures
- awareness of environmental sustainability issues as they relate to the work task
- legal, ethical and work health and safety (WHS) requirements specific to the work task.

## Assessment Conditions

Skills must have been demonstrated in the workplace or in a simulated environment that reflects workplace conditions and contingencies. The following conditions must be met for this unit:

- use of suitable facilities, equipment and resources, including:
  - a standard laboratory equipped with appropriate reagents and equipment to prepare and standardise solutions, such as pH meters; balances; magnetic stirrers, water baths and hot plates; measuring cylinders, beakers, conical flasks, volumetric flasks, pipettes and burettes; filter papers and funnels; and fume cupboards
  - standard methods and workplace procedures
  - containers and storage facilities.

Assessors must satisfy the NVR/AQTF mandatory competency requirements for assessors.

## Links

MSL Laboratory Operations Companion Volume Implementation Guide is available from VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=5c63a03b-4a6b-4ae5-9560-1e3c5f462baa>

## MSL974019 Perform chemical tests and procedures

### Modification History

Release	Comments
Release 1	<p>This version was released in <i>MSL Laboratory Operations Training Package Release 2.0</i>.</p> <p>Supersedes and equivalent to MSL974003 Perform chemical tests and procedures. Changes to performance criteria. Range of conditions removed. Assessment requirements amended.</p>

### Application

This unit of competency describes the skills and knowledge to interpret chemical test requirements, prepare samples, conduct pre-use and calibration checks on equipment and perform routine chemical tests. These tests will involve several measurement steps. The unit includes basic data processing and interpretation of results.

This unit applies to laboratory or technical assistants and instrument operators in all industry sectors.

No licensing or certification requirements exist at the time of publication. However, regulations and/or external accreditation requirements for laboratory operations exist, so local requirements should be checked. Relevant legislation, industry standards and codes of practice within Australia must also be applied.

### Pre-requisite Unit

Nil

### Competency Field

Testing

### Elements and Performance Criteria

Elements describe the essential outcomes.

Performance criteria describe the performance needed to demonstrate achievement of the element.

Elements describe the essential outcomes.		Performance criteria describe the performance needed to demonstrate achievement of the element.	
1	<b>Interpret and schedule test requirements</b>	1.1	Review test request to identify samples to be tested, test method and equipment and instruments involved
		1.2	Identify hazards and workplace control measures associated with the sample, preparation and test methods, reagents and/or equipment
		1.3	Plan work sequences to optimise throughput of multiple samples
2	<b>Receive and prepare samples</b>	2.1	Log samples using standard operating procedures (SOPs)
		2.2	Record sample description, compare with specification and note and report discrepancies
		2.3	Prepare samples and standards in accordance with chemical testing requirements
3	<b>Check equipment before use</b>	3.1	Set up equipment and instruments in accordance with test method requirements
		3.2	Perform pre-use and safety checks in accordance with relevant workplace and operating procedures
		3.3	Check equipment calibration using specified standards and procedures
		3.4	Inspect reagents required for quality issues including visual checks and expiry
		3.5	Maintain equipment log in accordance with workplace procedures
4	<b>Test samples to determine chemical species or properties</b>	4.1	Operate equipment and instruments in accordance with test method requirements
		4.2	Perform tests or procedures on all samples and standards in accordance with specified methods
		4.3	Shut down equipment and instruments in accordance

Elements describe the essential outcomes.

Performance criteria describe the performance needed to demonstrate achievement of the element.

with operating procedures

- |   |   |     |  |
|---|---|-----|--|
| 5 | <b>Process and interpret data</b>       | 5.1 | Record test data noting atypical observations and anomalies  |
|   |   | 5.2 | Construct calibration graphs and compute results for all samples from these graphs   |
|   |   | 5.3 | Check calculated values for consistency with expectations  |
|   |   | 5.4 | Record and report results in accordance with workplace procedures  |
|   |   | 5.5 | Determine if obvious procedure or equipment problems have led to atypical data or results  |
|   |   |     |  |
| 6 | <b>Maintain a safe work environment</b> | 6.1 | Use established safe work practices and personal protective equipment (PPE) to ensure personal safety and that of other laboratory personnel         |
|   |   | 6.2 | Minimise the generation of wastes and environmental impacts  |
|   |   | 6.3 | Safely collect and dispose of laboratory and hazardous waste   |
|   |   | 6.4 | Care for and store equipment and reagents as required  |
|   |   |     |  |
| 7 | <b>Maintain laboratory records</b>      | 7.1 | Record entries on report forms or into a laboratory information management system accurately calculating, recording or transcribing data as required |
|   |   | 7.2 | Ensure traceability of sample from receipt to reporting of results   |



## Foundation Skills

This section describes those language, literacy, numeracy and employment skills that are essential to performance.

- Problem-solving skills to trace and source obvious causes of artefacts, track obvious test malfunctions for standardised procedures, and troubleshoot basic equipment and methods.
- Calculate the concentration of solutions.

Other foundation skills essential to performance are explicit in the performance criteria of this unit.

## Unit Mapping Information

Equivalent to MSL974003 Perform chemical tests and procedures, Release 1.

## Links

MSL Laboratory Operations Companion Volume Implementation Guide is available from VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=5c63a03b-4a6b-4ae5-9560-1e3c5f462baa>

## Assessment Requirements for MSL974019 Perform chemical tests and procedures

### Modification History

Release	Comments
Release 1	<p>This version was released in <i>MSL Laboratory Operations Training Package Release 2.0</i>.</p> <p>Supersedes and equivalent to MSL974003 Perform chemical tests and procedures. Changes to performance criteria. Range of conditions removed. Assessment requirements amended.</p>

### Performance Evidence

There must be evidence the candidate has completed the tasks outlined in the elements and performance criteria of this unit, and:

- safely performed at least 3 different chemical tests involving several measurement steps including at least 1 of the following:
  - colorimetric techniques
  - infrared and ultraviolet-visible (UV-VIS) spectrophotometry
  - other spectrometric techniques
  - chromatographic techniques
  - electrochemical techniques
  - electrophoretic techniques
  - soil testing techniques
  - gravimetric analysis
  - titrimetric analysis
  - filtration, separation and solvent extraction techniques
  - corrosion testing, cement content and accelerated weathering.

### Knowledge Evidence

There must be evidence the candidate has knowledge of:

- why chemical tests are performed
- relevant chemical principles and concepts, including:
  - elements, compounds, ions, atoms, molecules, bonding and links to chemical properties
  - periodic table and symbols of elements

- atomic mass and molecular weight
- moles and molarity
- chemical formulae and balancing equations
- chemical reactions
- energy levels and absorption/emission spectra
- purpose of the tests and/or procedures conducted
- international system of units (SI)
- principles and concepts related to equipment and instrument operation, tests and/or procedures
- requirements for cleaning up spills and reporting faulty or unsafe equipment, hazards and incidents.
- concepts of metrology, including:
  - all measurements are estimates
  - precision, accuracy and significant figures
  - sources of error, uncertainty and repeatability
  - traceability
- function of key components of the equipment and instrument and reagents and effects of modifying equipment and instrument variables
- common causes of analytical errors
- calibration requirements and basic equipment and method troubleshooting procedures
- sample preparation procedures for the tests and/or procedures conducted
- traceability requirements
- awareness of environmental sustainability issues as they relate to the work task
- legal, ethical and work health and safety (WHS) requirements specific to the work task.

## Assessment Conditions

Skills must have been demonstrated in the workplace or in a simulated environment that reflects workplace conditions and contingencies. The following conditions must be met for this unit:

- use of suitable facilities, equipment and resources, including:
  - a standard laboratory equipped with appropriate sample preparation and test equipment, instruments, standards and reagents
  - workplace procedures and standard methods
  - records, including test and calibration results; equipment use, maintenance and servicing history, and faulty or unsafe equipment.

Assessors must satisfy the NVR/AQTF mandatory competency requirements for assessors.

## Links

MSL Laboratory Operations Companion Volume Implementation Guide is available from VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=5c63a03b-4a6b-4ae5-9560-1e3c5f462baa>

## MSL974020 Perform food tests

### Modification History

Release	Comments
Release 1	<p>This version was released in <i>MSL Laboratory Operations Training Package Release 2.0</i>.</p> <p>Supersedes and equivalent to MSL974004 Perform food tests. Changes to performance criteria. Foundation skill information added. Range of conditions removed. Assessment requirements amended.</p>

### Application

This unit of competency describes the skills and knowledge to interpret food test requirements, prepare samples, conduct pre-use and calibration checks on equipment, and perform routine testing of raw food materials, in-process materials and final products. These tests will involve several measurement steps. The unit includes data processing and some interpretation of results and tracking of obvious test malfunctions where the procedure is standardised. However, personnel are not required to analyse data, optimise tests/procedures for specific samples or troubleshoot equipment problems where the solution is not apparent.

This unit applies to laboratory or technical assistants and instrument operators working in the food and beverage processing industry sectors.

No licensing or certification requirements exist at the time of publication. However, regulations and/or external accreditation requirements for laboratory operations exist, so local requirements should be checked. Relevant legislation, industry standards and codes of practice within Australia must also be applied.

### Pre-requisite Unit

Nil

### Competency Field

Testing

## Elements and Performance Criteria

Elements describe the essential outcomes.

Performance criteria describe the performance needed to demonstrate achievement of the element.

- |   |  |     |   |
|---|--|-----|---|
| 1 | <b>Interpret and schedule test requirements</b>                      | 1.1 | Review test request to identify samples to be tested, test method and equipment/instruments involved                    |
|   |  | 1.2 | Identify hazards and workplace controls associated with the sample, preparation/test methods, reagents and/or equipment |
|   |  | 1.3 | Plan parallel work sequences to optimise throughput of multiple sets of samples   |
|   |  |     |   |
| 2 | <b>Receive and prepare food samples</b>                              | 2.1 | Log samples using standard operating procedures (SOPs)  |
|   |  | 2.2 | Record sample description, compare with specification and note and report discrepancies                                 |
|   |  | 2.3 | Prepare samples and standards in accordance with food testing requirements  |
|   |  |     |   |
| 3 | <b>Check equipment before use</b>                                    | 3.1 | Set up equipment/instruments in accordance with test method requirements  |
|   |  | 3.2 | Perform pre-use and safety checks in accordance with relevant workplace and operating procedures                        |
|   |  | 3.3 | Check equipment calibration using specified standards and procedures  |
|   |  | 3.4 | Inspect reagents required for quality issues including visual checks and expiry   |
|   |  |     |   |
| 4 | <b>Test samples to determine food components and characteristics</b> | 4.1 | Operate equipment/instruments in accordance with test method requirements   |
|   |  | 4.2 | Perform tests/procedures on all samples and standards in accordance with specified methods                              |
|   |  | 4.3 | Shut down equipment/instruments in accordance with operating procedures   |

Elements describe the essential outcomes.

Performance criteria describe the performance needed to demonstrate achievement of the element.

- |   |   |     |  |
|---|---|-----|--|
| 5 | <b>Process data</b>                     | 5.1 | Record test data noting atypical observations  |
|   |   | 5.2 | Construct calibration graphs and compute results for all samples from these graphs   |
|   |   | 5.3 | Ensure calculated values are consistent with reference standards and expectations  |
|   |   | 5.4 | Record and report results in accordance with workplace procedures  |
|   |   | 5.5 | Determine if basic procedure or equipment problems have led to atypical data or results  |
|   |   |     |  |
| 6 | <b>Maintain a safe work environment</b> | 6.1 | Use established safe work practices and personal protective equipment (PPE) to ensure personal safety and that of other laboratory personnel       |
|   |   | 6.2 | Minimise the generation of wastes and environmental impacts  |
|   |   | 6.3 | Ensure the safe collection of laboratory and hazardous waste for subsequent disposal   |
|   |   | 6.4 | Care for and store equipment and reagents as required  |
|   |   |     |  |
| 7 | <b>Maintain laboratory records</b>      | 7.1 | Make entries on report forms or into a laboratory information management system accurately calculating, recording or transcribing data as required |
|   |   | 7.2 | Ensure traceability of sample from receipt to reporting of results   |

## Foundation Skills

This section describes those language, literacy, numeracy and employment skills that are essential to performance.

- Numeracy skills to:

- process data, interpret gross features of data/results and make relevant conclusions
- prepare calibration graphs and calculate results using appropriate equations, units, uncertainties and precision
- Problem-solving skills to:
  - identify atypical results as either out-of-normal range or an artefact
  - trace and source obvious causes of an artefact, track obvious test malfunctions for standardised procedures, and troubleshoot basic equipment and methods.

Other foundation skills essential to performance are explicit in the performance criteria of this unit.

## Unit Mapping Information

Equivalent to MSL974004 Perform food tests, Release 1.

## Links

MSL Laboratory Operations Companion Volume Implementation Guide is available from VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=5c63a03b-4a6b-4ae5-9560-1e3c5f462baa>



## Assessment Requirements for MSL974020 Perform food tests

### Modification History

Release	Comments
Release 1	<p>This version was released in <i>MSL Laboratory Operations Training Package Release 2.0</i>.</p> <p>Supersedes and equivalent to MSL974004 Perform food tests. Changes to performance criteria. Foundation skill information added. Range of conditions removed. Assessment requirements amended.</p>

### Performance Evidence

There must be evidence the candidate has completed the tasks outlined in the elements and performance criteria of this unit, and:

- performed at least 5 routine food tests or procedures involving several measurement steps including at least 4 of the following:
  - sensory tests
  - visual tests
  - package integrity and compatibility test
  - physical/mechanical tests
  - chemical tests
  - thermal tests including stability of products and effectiveness of heat treatments
- prepared samples using 3 different processes including at least 2 of the following:
  - grinding and milling
  - preparation of discs
  - digestion
  - extracting
  - refluxing
  - degassing
  - enzymatic treatment
  - washing and drying
  - ashing and temperature equilibration
  - precipitation and centrifugation
  - filtration
  - flocculation

- evaporation.

## Knowledge Evidence

There must be evidence the candidate has knowledge of:

- basic principles and concepts underpinning the food tests or procedures including:
  - ions, atoms, molecules, bonding, affinities and related properties
  - chemical reactions (acid/base and compleximetric)
  - structure and properties of proteins, lipids, carbohydrates, vitamins and minerals
  - food additives, flavourings and essences
  - nutrient value of major food groups
  - interaction of water with food components
  - chemical and microbial changes in food
  - food preservation techniques including atmosphere and modified atmosphere in relation
  - basic biochemistry of fermentation reactions
  - function of packaging for product integrity and controlled atmosphere
  - electromagnetic spectrum and absorption, emission and refraction of light
  - quality control program for raw materials, process control and finished product inspection
- purpose of the food tests or procedures conducted
- basic principles and concepts related to equipment and instrument operation and tests or procedures implemented
- concepts of metrology, including:
  - all measurements are estimates
  - precision, accuracy and significant figures
  - sources of error, uncertainty and repeatability
  - traceability
- function of key components of the equipment/instrument used
- effects on the test of modifying equipment/instrument variables
- common sample preparation processes relevant to job role
- types of food tests and procedures:
  - sensory tests
  - visual tests of content and package
  - physical/mechanical tests
  - chemical analysis
  - microbiological tests
  - molecular tests
  - thermal tests including stability of products and effectiveness of heat treatments
- workplace and/or legal traceability requirements
- awareness of environmental sustainability issues as they relate to the work task

- legal, ethical and work health and safety (WHS) requirements specific to the work task.

## Assessment Conditions

Skills must have been demonstrated in the workplace or in a simulated environment that reflects workplace conditions and contingencies. The following conditions must be met for this unit:

- use of suitable facilities, equipment and resources, including:
  - a standard laboratory equipped with test equipment, instruments, standards and materials
  - workplace procedures and standard methods
  - records, including:
    - test and calibration results
    - equipment use, maintenance and servicing history.

Assessors must satisfy the NVR/AQTF mandatory competency requirements for assessors.

## Links

MSL Laboratory Operations Companion Volume Implementation Guide is available from VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=5c63a03b-4a6b-4ae5-9560-1e3c5f462baa>

## MSL974021 Perform biological procedures

### Modification History

Release	Comments
Release 1	<p>This version was released in <i>MSL Laboratory Operations Training Package Release 2.0</i>.</p> <p>Supersedes and equivalent to MSL974006 Perform biological procedures. Changes to elements and performance criteria. Range of conditions removed. Assessment requirements amended.</p>

### Application

This unit of competency describes the skills and knowledge to interpret work requirements, prepare samples, and perform routine biological procedures. These procedures may involve several steps and are used to classify organisms and biologically active compounds by analysing their biological and/or chemical characteristics. This unit includes interpretation of results and troubleshooting obvious departures from standard procedures.

This unit of competency applies to technical assistants working in the biomedical, environmental, biotechnology and education industry sectors.

No licensing or certification requirements exist at the time of publication. However, regulations and/or external accreditation requirements for laboratory operations exist, so local requirements should be checked. Relevant legislation, industry standards and codes of practice within Australia must also be applied.

### Pre-requisite Unit

Nil

### Competency Field

Testing

### Elements and Performance Criteria

Elements describe the essential outcomes.

Performance criteria describe the performance needed to demonstrate achievement of the element.

Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
<b>1 Interpret and schedule work requirements</b>	<ul style="list-style-type: none"><li>1.1 Review work request to identify samples, required procedures and materials/equipment/instruments involved</li><li>1.2 Identify hazards and workplace control measures associated with the sample, preparation methods, reagents and/or equipment</li><li>1.3 Plan parallel work sequences to optimise throughput of multiple sets of samples</li></ul>
<b>2 Receive and prepare biological samples</b>	<ul style="list-style-type: none"><li>2.1 Log samples using standard operating procedures (SOPs)</li><li>2.2 Record sample description, compare with specification and note and report discrepancies</li><li>2.3 Prepare samples in accordance with testing requirements</li></ul>
<b>3 Perform techniques that assist in the classification of organisms</b>	<ul style="list-style-type: none"><li>3.1 Identify characteristics used to classify organisms</li><li>3.2 Use dichotomous keys to identify organisms</li></ul>
<b>4 Perform biological procedures</b>	<ul style="list-style-type: none"><li>4.1 Set up and use equipment and reagents in accordance with the method</li><li>4.2 Perform techniques in accordance with the standard operating procedures</li></ul>
<b>5 Maintain a safe work environment</b>	<ul style="list-style-type: none"><li>5.1 Use established safe work practices and personal protective equipment (PPE) to ensure personal safety and that of other laboratory personnel</li><li>5.2 Minimise the generation of waste</li><li>5.3 Safely dispose of biohazardous wastes</li></ul>

Elements describe the essential outcomes.

Performance criteria describe the performance needed to demonstrate achievement of the element.

5.4 Clean, care for and store equipment and reagents as required

**6 Maintain laboratory records**

6.1 Record entries on report forms or into a laboratory information management system, accurately calculating, recording or transcribing data as required

6.2 Ensure traceability of sample from receipt to reporting of results

## Foundation Skills

This section describes those language, literacy, numeracy and employment skills that are essential to performance.

Foundation skills essential to performance are explicit in the performance criteria of this unit of competency.

## Unit Mapping Information

Equivalent to MSL974006 Perform biological procedures, Release 1.

## Links

MSL Laboratory Operations Companion Volume Implementation Guide is available from VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=5c63a03b-4a6b-4ae5-9560-1e3c5f462baa>

# Assessment Requirements for MSL974021 Perform biological procedures

## Modification History

Release	Comments
Release 1	<p>This version was released in <i>MSL Laboratory Operations Training Package Release 2.0</i>.</p> <p>Supersedes and equivalent to MSL974006 Perform biological procedures. Changes to elements and performance criteria. Range of conditions removed. Assessment requirements amended.</p>

## Performance Evidence

There must be evidence the candidate has completed the tasks outlined in the elements and performance criteria of this unit, and:

- classify 2 organisms from 2 different kingdoms to species level using a dichotomous approach
- safely and accurately performed 3 multistep biological procedures, using a minimum of 2 different techniques from the following list:
  - multistep staining:
    - haematological
    - histological
    - microbiological
  - preparation and examination of samples to demonstrate mitosis microscopically
  - preparation and enumeration of microscopic samples
  - colorimetry
  - spectrophotometry
  - chromatography
  - electrophoresis
  - electrochemistry
  - multistep molecular technique
  - multistep immunological technique.

## Knowledge Evidence

There must be evidence the candidate has knowledge of:

- biological principles and concepts underpinning tests and procedures associated with job role:
  - basic classification and taxonomy of organisms including prokaryotes and eukaryotes, bacteria, viruses, fungi, plants, animals, parasites and prions
  - interrelationships of biological systems including the carbon cycle and energy cycle
  - basic structure and function of a plant and animal cell and the respective organelles (plant and animal)
  - cell membrane activity, including diffusion (passive, facilitated and active), osmosis, tonicity and plasmolysis
  - plant and animal tissue types
  - phases of the cell cycle including phases of mitosis
  - mendelian genetics including inheritance, meiosis, karyotypes, dominant and recessive traits, genotypes, phenotypes, and pedigrees
  - basic structure and function of chromosomes, nucleic acids and proteins
  - chemical and physical characteristics of organic molecules
  - basic structure and function of including carbohydrates, fats and amino acids
  - basic role of biological significance of ions, including calcium, iron, magnesium, sodium, potassium, chloride and phosphate
- purpose of procedures implemented (why they are used and what they demonstrate)
- calculation steps to give results in appropriate units and precision
- importance and appropriate use of controls and certified reference materials
- awareness of environmental sustainability issues as they relate to the work task
- legal, ethical and work health and safety (WHS) requirements specific to the work task including traceability, confidentiality and security requirements of all clinical information, and laboratory data and records.

## Assessment Conditions

Skills must have been demonstrated in the workplace or in a simulated environment that reflects workplace conditions and contingencies. The following conditions must be met for this unit:

- use of suitable facilities, equipment and resources, including:
  - a standard laboratory equipped with appropriate test equipment and instruments, safety equipment, reagents and materials
  - standard operating procedures (SOPs) and testing methods
  - records, including:
    - test calibration results
    - equipment use, maintenance and servicing history
    - faulty or unsafe equipment
    - batch number, catalogue number and use-by-date for analytical kits.

Assessors must satisfy the NVR/AQTF mandatory competency requirements for assessors.



## Links

MSL Laboratory Operations Companion Volume Implementation Guide is available from VETNet -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=5c63a03b-4a6b-4ae5-9560-1e3c5f462baa>

## MSL975038 Conduct sensory analysis

### Modification History

Release	Comments
Release 1	<p>This version was released in <i>MSL Laboratory Operations Training Package Release 2.0</i>.</p> <p>Supersedes and equivalent to MSL975005 Conduct sensory analysis. Foundation skill information added. Range of conditions removed. Assessment requirements amended.</p>

### Application

This unit of competency describes the skills and knowledge to set up and coordinate sensory analysis and assess the results obtained from a routine sensory analysis.

This unit applies to laboratory technicians and technical officers working in the food industry. Although a supervisor may not always be present, the technician will follow standard operating procedures (SOPs) that will clearly describe the scope of permitted practice in modifying testing procedures and for communicating results to people outside of the laboratory.

No licensing or certification requirements exist at the time of publication. However, regulations and/or external accreditation requirements for laboratory operations exist, so local requirements should be checked. Relevant legislation, industry standards and codes of practice within Australia must also be applied.

### Pre-requisite Unit

Nil

### Competency Field

Testing

### Elements and Performance Criteria

Elements describe the essential outcomes.

Performance criteria describe the performance needed to demonstrate achievement of the element.

Elements describe the essential outcomes.		Performance criteria describe the performance needed to demonstrate achievement of the element.	
1	<b>Select panellists/individuals for sensory analysis</b>	1.1	Perform initial screening of potential panellists/individuals based on the testing brief
		1.2	Use information to select suitable people
		1.3	Analyse and report the results used to establish a panel
2	<b>Prepare panellists for sensory analysis</b>	2.1	Prepare panellists for sensory analysis
		2.2	Conduct any training required to detect test characteristics
		2.3	Instruct panellists on recording and reporting requirements of test data
3	<b>Prepare samples for sensory analysis</b>	3.1	Prepare reference samples to be used for the sensory analysis specification
		3.2	Prepare evaluation samples to sensory analysis specification
		3.3	Apply food safety procedures in the preparation and presentation of samples
		3.4	Identify and report on any defects or abnormalities in samples
4	<b>Conduct routine sensory analysis</b>	4.1	Select appropriate test materials for the information required
		4.2	Ensure tests are conducted according to workplace procedures
		4.3	Analyse data
		4.4	Report on process and results in accordance with workplace procedures
5	<b>Evaluate and</b>	5.1	Assess the possible effects of group attributes

Elements describe the essential outcomes.		Performance criteria describe the performance needed to demonstrate achievement of the element.	
<b>report findings</b>		5.2	Review reliability of results for group bias
		5.3	Complete all relevant documentation and present findings
6	<b>Maintain a safe work environment</b>	6.1	Use established work practices to ensure personal safety and that of other personnel
		6.2	Minimise the generation of waste and environmental impacts
		6.3	Safely collect laboratory waste for subsequent disposal
		6.4	Care for and store equipment and reagents as required

## Foundation Skills

This section describes those language, literacy, numeracy and employment skills that are essential to performance.

- Writing skills to develop questionnaires
- Oral communication skills to interact effectively with panellists including those who have diverse cultural and social backgrounds.

Other foundation skills essential to performance are explicit in the performance criteria of this unit.

## Unit Mapping Information

Equivalent to MSL975005 Conduct sensory analysis, Release 1.

## Links

Training Package Companion Volumes -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=5c63a03b-4a6b-4ae5-9560-1e3c5f462baa>

# Assessment Requirements for MSL975038 Conduct sensory analysis

## Modification History

Release	Comments
Release 1	<p>This version was released in <i>MSL Laboratory Operations Training Package Release 2.0</i>.</p> <p>Supersedes and equivalent to MSL975005 Conduct sensory analysis. Foundation skill information added. Range of conditions removed. Assessment requirements amended.</p>

## Performance Evidence

There must be evidence the candidate has completed the tasks outlined in the elements and performance criteria of this unit, and:

- established and coordinated at least 1 sensory analysis test that includes a minimum of 5 panellists.

## Knowledge Evidence

There must be evidence the candidate has knowledge of:

- anatomy, physiology and functions of taste and smell to determine sample appearance, texture, aroma and flavour
- the primary flavour characteristics of sweet/sour, umamic and bitter/salty
- interaction of sensory activity, such as the interaction between taste and smell, and effect of temperature on samples
- associated characteristics of mouth feel and appearance
- consumer research methods
- information used to select suitable panellists
- principles of descriptive, discriminative and affective sensory analysis methods
- principles of effective control of the sensory testing environment, such as conditions that can dull sensitivity
- principles and purpose of test methods implemented (why they are used and what they demonstrate)
- attributes of panellists which could affect the results, such as:
  - age, gender and ethnicity
  - smoking
  - medications

- qualifications and trained/untrained
- random panel
- cultural food preferences/food styles
- likely causes of variation in results and their control
- typical samples include:
  - raw materials, ingredients, final products, packaging materials, and materials which come in contact with the product
  - materials at stages of production
  - process aids and adjuncts
- common testing methods:
  - triangular test, duo-trio test, ranking test, paired comparison test and blending test
  - flavour profile
  - threshold analysis
  - discriminative testing, descriptive testing and affective testing
- typical uses of the results obtained from the sensory analysis:
  - marketing studies
  - purchasing requirements
  - quality assurance at various stages of production
  - quality control and troubleshooting
  - research and development of new products
  - customer returns
  - product recalls
- awareness of environmental sustainability issues as they relate to the work task
- legal, ethical and work health and safety (WHS) requirements specific to the work task including traceability, confidentiality and security requirements of all client information, and laboratory data and records.

## Assessment Conditions

Skills must have been demonstrated in the workplace or in a simulated environment that reflects workplace conditions and contingencies. The following conditions must be met for this unit:

- use of suitable facilities, equipment and resources, including:
  - statistical data sheets and charts, logbooks and scientific calculators
  - relevant ISO Standards and Australian Standards
  - a sensory evaluation panel room and group of panellists.

Assessors must satisfy the NVR/AQTF mandatory competency requirements for assessors.

## Links

Training Package Companion Volumes -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=5c63a03b-4a6b-4ae5-9560-1e3c5f462baa>

# MSMBLIC001 Licence to operate a standard boiler

## Modification History

Release 1. Supersedes and is equivalent to MSABLIC001 Licence to operate a standard boiler.

## Application

This unit specifies the outcomes required to operate a standard boiler safely. This includes boiler start-up, handover, monitoring, shutdown and storage of a boiler that uses a single fuel source and does not have an air pre-heater, feed water heater, superheater, attempurator or desuperheater, simultaneous dual fuel firing capability or economiser attached.

This unit also covers the preparation for inspection procedures as specified in manufacturer recommendations, identification of maintenance requirements and relevant risk control measures.

This unit is based on the licensing requirements of Part 4.5 of the Model Work Health and Safety (WHS) Regulations, High Risk Work, and meets Commonwealth, state and territory high risk work licensing requirements. Any alteration to the unit content or outcomes would result in a unit that is not acceptable to WHS/Occupational Health and Safety (OHS) regulators for the purpose of licensing.

## Pre-requisite Unit

Nil

## Competency Field

## Unit Sector

Boiler operation (licensed)

## Elements and Performance Criteria

Elements describe the essential outcomes

Performance criteria describe the performance needed to demonstrate achievement of the element

- |   |                         |     |   |
|---|-------------------------|-----|---|
| 1 | <b>Plan and prepare</b> | 1.1 | Follow standard operating procedures (SOPs) |
|---|-------------------------|-----|---|



- |                 |                        |     |  |
|-----------------|------------------------|-----|--|
| <b>for work</b> |                        | 1.2 | Comply with work health and safety (WHS) requirements at all times   |
|                 |                        | 1.3 | Identify potential workplace hazards and appropriate risk control measures consistent with appropriate standards to ensure the safety of personnel and equipment |
|                 |                        | 1.4 | Locate and review appropriate records to prepare for boiler operation  |
|                 |                        | 1.5 | Identify the type of boiler and plan boiler operations according to procedures   |
|                 |                        | 1.6 | Identify appropriate personal protective equipment (PPE) in accordance with SOPs   |
|                 |                        | 1.7 | Identify suitable communication methods and confirm with appropriate personnel   |
| <b>2</b>        | <b>Start up boiler</b> | 2.1 | Apply risk prevention and risk control measures to the work area according to procedures   |
|                 |                        | 2.2 | Select communication equipment and inspect for serviceability  |
|                 |                        | 2.3 | Select all necessary equipment and inspect for operational effectiveness according to procedures, including establishing water level                             |
|                 |                        | 2.4 | Check boiler visually for any damage or defects and report and record any found according to procedures with appropriate action taken                            |
|                 |                        | 2.5 | Vent boiler to atmosphere prior to start-up, as required   |
|                 |                        | 2.6 | Carry out pre-start up checks on the boiler and bring the boiler online safely according to procedures   |
|                 |                        | 2.7 | Start up boiler according to procedures  |
|                 |                        | 2.8 | Identify maintenance requirements and any visual faults and report according to procedures   |
|                 |                        | 2.9 | Confirm, complete and log all maintenance and/or repairs and associated isolations and make the equipment serviceable  |

- |   |                                 |      |   |
|---|---------------------------------|------|---|
| 3 | <b>Monitor boiler operation</b> | 3.1  | Diagnose operating status of the boiler   |
|   |                                 | 3.2  | Maintain operating log clearly and accurately according to procedures   |
|   |                                 | 3.3  | Monitor boiler, valves, fittings and pressure gauges according to procedures  |
|   |                                 | 3.4  | Blow boiler water level gauges through both steam and water sides   |
|   |                                 | 3.5  | Test standby plant and equipment according to procedures  |
|   |                                 | 3.6  | Conduct boiler water quality tests, where required, and record the results according to procedures  |
|   |                                 | 3.7  | Adjust boiler water chemicals after tests, where appropriate and required according to procedures and notify downstream users, if necessary |
|   |                                 | 3.8  | Activate the automatic blowdown and, where required, boiler is blown down to adjust total dissolved solids (TDS) levels to recommendations  |
|   |                                 | 3.9  | Communicate handover information regarding boiler status and operation clearly to relevant personnel according to procedures                |
|   |                                 | 3.10 | Respond immediately to any boiler emergency in accordance with procedures   |
| 4 | <b>Shut down boiler</b>         | 4.1  | Shut down the boiler for inspection according to procedures, as required  |
|   |                                 | 4.2  | Identify maintenance requirements and report any visual faults according to procedures  |
|   |                                 | 4.3  | Complete isolations associated with in-service maintenance according to procedures  |
|   |                                 | 4.4  | Clean boiler internally and externally to manufacturer recommendations and procedures, where required                                       |
|   |                                 | 4.5  | Complete boiler operating log for shutdown  |

- |   |                                      |     |   |
|---|--------------------------------------|-----|---|
| 5 | <b>Store boiler in shutdown mode</b> | 5.1 | Identify storage time and condition of storage, where required  |
|   |                                      | 5.2 | Store boiler in safe condition for access in accordance with manufacturer recommendations and procedures                                |
|   |                                      | 5.3 | Test stored boiler water and chemicals, where required, and handle in accordance with procedures, where storage is for extended periods |

## Foundation Skills

This section describes those language, literacy, numeracy and employment skills that are essential to performance.

Foundation skills essential to performance are explicit in the performance criteria of this unit of competency.

## Range of Conditions

This field allows for different work environments and conditions that may affect performance. Essential operating conditions that may be present (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) are included.

**Boiler includes:** Fixed and modulating combustion controls and a single heat source. Operation includes a battery of boilers and boilers that have a single thermal or solar heat source.

**Note:** Boilers meeting the definition of ‘advanced boiler’ are excluded.

- Standard boiler includes:**
- vessel or an arrangement of vessels and interconnecting parts in which steam and vapour is generated or in which water or other liquid is heated above that of the atmospheric pressure by the application of:
    - fire
    - the products of combustion
    - electrical power
    - similar means
  - fixed and modulating combustion controls, fixed and

modulated air supply, a single fuel source and will have:

- boiler piping
- supports
- mountings
- valves
- gauges
- fittings
- controls
- boiler settings and directly associated equipment

**Type of boiler includes one or more of the following:**

- fire tube
- water tube
- once through boilers
- waste heat
- electrically heated
- novel or unique

**Hazards include one or more of the following:**

- asbestos lagging
- chemical hazards
- thermal hazards
- manual handling hazards
- machinery guard requirements
- hot exposed steam pipe
- leakage of steam
- leakage of fuel
- odour of gas
- fumes from a liquid chemical spill
- faulty/broken ladder or hand rail
- working at heights
- flammable liquids
- fire and explosion
- electrical hazards
- work area, including:
  - illumination
  - excessive noise from machinery
  - spillage of oil
  - rubbish and combustibles
  - obstruction

**Risk control methods include:**

Risk control methods refer to the systematic process of eliminating or reducing the risk to personnel and property through the application of controls.

It includes the application of the hierarchy of control:

- elimination
- substitution
- isolation
- engineering controls
- administrative controls
- personal protective equipment (PPE)

**Appropriate standards include one or more of the following:**

- legislation
- codes of practice
- manufacturer specifications
- Australian Standards
- technical standards (International)
- industry standards (where applicable)

**Procedures include one or more of the following:**

- manufacturer guidelines (e.g. instructions, specifications or checklists)
- industry operating procedures
- workplace procedures (e.g. work instructions, operating procedures or checklists)

**Equipment includes one or more of the following:**

- gas monitoring equipment
- water testing equipment
- fire-fighting equipment
- workplace first aid equipment
- work platform and associated gear, including walkways

**Communication methods include one or more of the following:**

- verbal and non-verbal language
- written instructions
- signage
- hand signals
- listening
- questioning to confirm understanding
- appropriate worksite protocol

**Appropriate personnel includes one or more of the following:**

- production workers
- maintenance workers
- supervisors and managers
- other boiler operators
- suppliers
- colleagues

**Records include one or more of the following:**

- operating log books
- maintenance records
- records of faults and potential faults
- isolation procedures
- safe operating procedures
- daily operating inspections
- repairs carried out according to manufacturer recommendations and operating procedures
- workplace record keeping requirements
- details of any daily or periodic maintenance work
- details of yearly programmed or additional maintenance work

**Risk control measures include one or more of the following:**

- barricades and controls
- machine guarding
- fall prevention
- pedestrian controls
- adequate illumination
- noise controls
- signage
- PPE

**PPE includes one or more of the following:**

- thermally insulated gloves
- hard hat protection
- ear protection (muffs or plugs)
- chemical resistant gloves and apron
- respiratory devices
- eye protection
- working protective gloves
- whole body fire-resistant clothing

**Communication equipment includes one or more of the following:**

- two-way radios
- mobile phones

**following:**

- intercoms
- landline telephones
- pagers
- satellite phones
- computers

**Pre-start up checks include:**

- testing warning lamps or visual warning indicators
- control panel checks
- checks of feedwater supply system
- fuel supply/heat source system
- operation and position of boiler valves
- combustion air supply system
- boiler water level
- essential fittings and gauges
- selection of PPE
- inspection and location of inspection and explosion doors (where applicable)
- identification of hazards and management of risks and maintenance problems
- fire-fighting equipment
- manufacturer recommendations and checklists
- relevant records and logs

**Start-up includes:**

- purge boiler furnace
- heat input
- warm-up reticulation system
- venting the boiler of air, where required
- steam traps and steam line purge system operations
- reticulation line pressure
- steam usage and supply

**Maintenance includes:**

- leaking steam pipe
- pressure gauge accuracy
- exposed electrical wiring
- defective illumination in the workplace
- leaking fuel pump gland
- leaks in high pressure feed line
- leaking gauge glass mounting
- leaking safety valve
- isolation procedures, hardware and equipment

**Faults include one or more of the following:**

- abnormal operating conditions
- boiler tube failure
- feedwater supply and/or other major auxiliary loss
- wet steam
- high dissolved oxygen
- pH of water
- high conductivity
- actuator or valve mechanical or electrical fault/failure
- instrument failure
- steam leak

**Diagnosed includes one or more of the following:**

- senses, including:
  - audio
  - smell
  - touch
  - visual
- remote or local indicators and recorders
- computers and alarms, including:
  - visible
  - audible

**Operating log includes:**

- date and time of checking
- each check, examination and results
- printed and signed name of person who performed the checks
- date and time of any lockout or equipment malfunction
- results of tests on boiler or feedwater
- changes in operation

**Valves and fittings include one or more of the following:**

- safety valves
- gauge glasses
- main steam stop valve
- feedwater stop valve
- feed check valve
- blowdown valve
- steam side/line drain valves
- flame failure detection device
- water level controller



	<ul style="list-style-type: none"><li>• boiler steam pressure gauge</li></ul>
<b>Monitored includes:</b>	<ul style="list-style-type: none"><li>• water supply system</li><li>• checks of steam reticulation line pressure</li><li>• usage and supply of steam</li><li>• quality of steam</li><li>• combustion/heat source system and management</li><li>• feedwater system</li><li>• fuel system</li><li>• combustion air supply</li><li>• water level</li><li>• boiler steam pressure</li><li>• boiler and steam manifold valves (where fitted)</li><li>• soot blowers (where fitted)</li><li>• operation of control/safety devices, including control panels</li></ul>
<b>Tested includes one or more of the following:</b>	<ul style="list-style-type: none"><li>• response checks</li><li>• standby plant 'cut in' tests</li><li>• valve operating checks</li><li>• hydrostatic tests</li><li>• performance tests</li><li>• alarm and protection tests</li></ul>
<b>Tests include one or more of the following:</b>	<ul style="list-style-type: none"><li>• pH levels</li><li>• conductivity</li><li>• oxygen</li><li>• TDS</li><li>• hardness</li><li>• other contaminants</li></ul>
<b>Chemicals include one or more of the following:</b>	<ul style="list-style-type: none"><li>• oxygen scavenger</li><li>• feedwater additives</li><li>• other chemicals</li><li>• hardness</li><li>• condensate chemicals</li><li>• pH buffers</li></ul>
<b>Handover includes:</b>	<ul style="list-style-type: none"><li>• previous load requirements</li></ul>

- maintenance issue, including equipment isolated for maintenance
- operational incidences
- read operating log
- general inspection of boiler to detect any defects
- accept responsibility of boiler
- noted equipment malfunctions
- required equipment tests

**Emergencies include one or more of the following:**

- tube failure
- loss of water level
- power failure
- inadequate housekeeping
- explosion
- fire
- bomb threat
- terrorism
- personal accidents
- chemical spills
- major steam leaks
- major water leaks and flooding
- natural disasters
- oil spills

**Appropriate emergency response measures include one or more of the following:**

- identification of emergency
- isolation of heat source
- selection and application of appropriate fire-fighting equipment and PPE
- notification of downstream users
- operation of boiler only when safe to do so
- notification of appropriate regulatory authorities, including Commonwealth, state, territory and boiler manufacturer

**Shutdown includes:**

- checks of water level
- cooling down process
- valve settings
- equipment isolation
- boiler pressure/vacuum
- fuel/heat source isolation in accordance with manufacturer recommendations

- boiler post-purge

**Storage mode includes:**

- wet and dry storing
- open or closed position

## Unit Mapping Information

Release 1. Supersedes and is equivalent to MSABLIC001 Licence to operate a standard boiler.

## Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=d1287d36-dff4-4e9f-ad2c-9d6270054027>

# Assessment Requirements for MSMBLIC001 Licence to operate a standard boiler

## Modification History

Release 1. Supersedes and is equivalent to MSABLIC001 Licence to operate a standard boiler.

## Performance Evidence

Evidence of competence in this unit must be relevant to and satisfy the requirements of the elements and performance criteria, and include demonstration of:

- following work instructions, SOPs and safe work practices
- complying with Commonwealth, state and territory work health and safety (WHS) legislation and regulations
- complying with Australian and industry standards, organisation workplace standards, policies and relevant codes of practice requirements at all times
- planning and preparing for work, including identifying potential hazards and implementing appropriate risk control measures
- identifying the type of standard boiler
- reading and interpreting maintenance records, operating logs and safety data sheets (SDS)
- conducting the appropriate pre-start up checks, including identifying all maintenance requirements and visual faults
- using appropriate tools, equipment and PPE in accordance with procedures
- completing all maintenance and rectification requirements in accordance with manufacturers' and workplace procedures, including recording/reporting requirements
- completing the start-up procedures and bringing the boiler online
- monitoring the boiler, including conducting relevant tests and activities and adjusting boiler water quality in accordance with procedures
- interpreting boiler operation tables and figures
- communicating handover of boiler status to appropriate personnel
- demonstrating emergency operating procedures
- identifying all boiler energy sources required to be isolated and made safe for maintenance, inspection and repairs
- applying boiler cleaning and storage techniques.

## Knowledge Evidence

Evidence must be provided that demonstrates knowledge of:

- safe work practices and procedures and use of PPE
- Commonwealth, state and territory WHS/OHS legislation and approved codes of practice relevant to standard boiler operation

- Australian and industry standards relevant to standard boiler operation
- basic principles of heat transfer and thermodynamics in relation to boiler operations
- boiler steam equipment operating principles and operating methods
- types and characteristics of feedwater systems and treatment
- types and use of equipment and fittings for operation and maintenance of boilers
- function, purpose and operation of main steam stop valve
- boiler auxiliary equipment characteristics and capabilities
- essential fittings required where more than one boiler is installed (e.g. battery of boilers)
- processes for confirming operational status of a boiler
- workplace communication techniques and procedures
- responsibilities for checking and testing boilers
- location and inspection procedures and techniques for inspection and explosion doors
- steam and boiler hazards for cold start and handover
- hierarchy of risk control
- type and limitations of corrective action and/or adjustments that can be made in response to routine boiler operation problems and emergencies
- various harmful energy sources in boiler operation and the means to effectively isolate these energy sources and make them safe
- modes of boiler storage and procedures for storing boiler in open or closed condition
- SDS and safe chemical handling and storage methods for boiler operation and cleaning
- procedures for cleaning boilers internally and externally, as required
- procedures for recording, reporting and maintenance of workplace records and information.

## Assessment Conditions

- Assessments must be conducted by an assessor accredited for this high risk work (HRW) licence class in the Commonwealth/state/territory where the licence will be obtained (i.e. an assessor authorised by a Commonwealth/state/territory WHS/OHS regulator).
- Assessment processes and techniques must be appropriate to the language, literacy and numeracy requirements of the work being performed and all assessments must be conducted in the English language.
- Where possible, assessment of performance should be undertaken in the workplace and/or under realistic workplace conditions that typically reflect:
  - the use of full-scale equipment
  - performing tasks/activities within timelines that would be expected in a workplace
  - standard and authorised work practices, safety requirements and environmental constraints.
- Where this is not possible or where personal safety, plant operation or environmental damage are limiting factors, assessment must occur in a sufficiently rigorous simulated environment that reflects realistic operational workplace conditions that cover all aspects of workplace performance, including environment, task skills, task management skills, contingency management skills and job role environment skills.

- Accredited assessors are responsible for ensuring that candidates have access to all tools, equipment, PPE, materials and documentation required, including relevant workplace procedures, product and manufacturing specifications.
- As a minimum, assessors must satisfy applicable regulatory requirements, which include requirements in the Standards for Registered Training Organisations (RTOs) current at the time of assessment.

## Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=d1287d36-dff4-4e9f-ad2c-9d6270054027>

# MSMBLIC002 Licence to operate an advanced boiler

## Modification History

Release 1. Supersedes and is equivalent to MSABLIC002 Licence to operate an advanced boiler

## Application

This unit specifies the outcomes required to operate an advanced boiler safely. This includes boiler start-up, handover, monitoring, shutdown and storage of a boiler.

This unit also covers the preparation for inspection procedures as specified in manufacturer recommendations, identification of maintenance requirements and relevant risk control measures.

This unit is based on the licensing requirements of Part 4.5 of the Model Work Health and Safety (WHS) Regulations, High Risk Work, and meets Commonwealth, state and territory high risk work licensing requirements. Any alteration to the unit content or outcomes would result in a unit that is not acceptable to WHS/Occupational Health and Safety (OHS) regulators for the purpose of licensing.

## Pre-requisite Unit

Nil

## Competency Field

## Unit Sector

Boiler operation (licensed)

## Elements and Performance Criteria

Elements describe the essential outcomes

Performance criteria describe the performance needed to demonstrate achievement of the element

1	<b>Plan and prepare for work</b>	1.1	Follow standard operating procedures (SOPs)
		1.2	Comply with work health and safety (WHS)

- requirements at all times
- 1.3 Identify potential workplace hazards and appropriate risk control measures consistent with appropriate standards to ensure the safety of personnel and equipment
  - 1.4 Locate and review appropriate records to prepare for boiler operation
  - 1.5 Identify the type of boiler with associated equipment and plan boiler operations according to procedures
  - 1.6 Identify appropriate personal protective equipment (PPE) in accordance with SOPs
  - 1.7 Identify suitable communication methods and confirm with appropriate personnel
- 2      **Start up boiler**
- 2.1 Apply risk prevention and risk control measures to the work area according to procedures
  - 2.2 Select communication equipment and inspect for serviceability
  - 2.3 Select all necessary equipment and inspect for operational effectiveness according to procedures, including establishing water level
  - 2.4 Check boiler and associated equipment visually for any damage or defects and report and record any found according to procedures with appropriate action taken
  - 2.5 Vent boiler to atmosphere prior to start-up, as required
  - 2.6 Carry out pre-start up checks on the boiler and bring the boiler and associated equipment online safely according to procedures
  - 2.7 Start up boiler according to procedures
  - 2.8 Identify maintenance requirements and any visual faults and report according to procedures
  - 2.9 Confirm, complete and log all maintenance and/or repairs and associated isolations and make the equipment serviceable



- |   |                                 |      |   |
|---|---------------------------------|------|---|
| 3 | <b>Monitor boiler operation</b> | 3.1  | Diagnose operating status of the boiler and associated equipment  |
|   |                                 | 3.2  | Maintain operating log clearly and accurately according to procedures   |
|   |                                 | 3.3  | Monitor boiler, valves, fittings, pressure gauges combustion management systems, air heaters, superheaters and economisers (where fitted) according to procedures |
|   |                                 | 3.4  | Blow boiler water level gauges through both steam and water sides   |
|   |                                 | 3.5  | Test standby plant and equipment according to procedures  |
|   |                                 | 3.6  | Conduct boiler water quality tests, where required, and record the results according to procedures  |
|   |                                 | 3.7  | Adjust boiler water chemicals after tests, where appropriate and required, according to procedures and notify downstream users, if necessary                      |
|   |                                 | 3.8  | Activate the automatic blowdown and, where required, boiler is blown down to adjust total dissolved solids (TDS) levels to recommendations                        |
|   |                                 | 3.9  | Communicate handover information regarding boiler status and associated equipment and operation clearly to relevant personnel according to procedures             |
|   |                                 | 3.10 | Respond immediately to any boiler emergency in accordance with procedures   |
|   |                                 |      |   |
| 4 | <b>Shut down boiler</b>         | 4.1  | Shut down the boiler and associated equipment for inspection according to procedures, as required   |
|   |                                 | 4.2  | Identify maintenance requirements and report any visual faults according to procedures  |
|   |                                 | 4.3  | Clean boiler and associated equipment internally and externally to manufacturer recommendations and procedures, where required                                    |
|   |                                 | 4.4  | Complete isolations associated with in-service  |

			maintenance according to procedures
		4.5	Complete boiler operating log for shutdown
5	<b>Store boiler in shutdown mode</b>	5.1	Identify storage time and condition of storage, where required
		5.2	Store boiler and associated equipment in safe condition for access in accordance with manufacturer recommendations and procedures
		5.3	Test stored boiler water and chemicals, where required, and handle in accordance with procedures, where storage is for extended periods

## Foundation Skills

This section describes those language, literacy, numeracy and employment skills that are essential to performance.

Foundation skills essential to performance are explicit in the performance criteria of this unit of competency.

## Range of Conditions

This field allows for different work environments and conditions that may affect performance. Essential operating conditions that may be present (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) are included.

### Boiler includes:

Boilers covered by this unit are standard boilers and advanced boilers, including boilers defined in *AS 2593:2004 Safety management and supervision systems* and *AS 3873:2001 Pressure equipment – Operation and maintenance* and typically have a modulating combustion air supply and heat source.

### Standard boiler includes:

- vessel or an arrangement of vessels and interconnecting parts in which steam and vapour is generated or in which water or other liquid is heated above that of the atmospheric pressure by the application of:
  - fire
  - the products of combustion

- electrical power
- similar high temperature means
- fixed and modulating combustion controls, fixed and modulated air supply, a single fuel source and will have:
  - boiler piping
  - supports
  - mountings
  - valves
  - gauges
  - fittings
  - controls
  - boiler settings and associated equipment

- Advanced boiler includes:**
- vessel or an arrangement of vessels and interconnecting parts in which steam and vapour is generated or in which water or other liquid is heated above that of the atmospheric pressure by the application of:
    - fire
    - the products of combustion
    - electrical power
    - similar high temperature means
  - fixed and modulating combustion controls, fixed and modulated air supply, multiple fuel sources, pre-heaters, superheaters and economisers and will have:
    - boiler piping
    - supports
    - mountings
    - valves
    - gauges
    - fittings
    - controls
    - boiler settings and directly associated equipment

- Hazards include one or more of the following:**
- asbestos lagging
  - chemical hazards
  - thermal hazards
  - manual handling hazards
  - machinery guard requirements
  - hot exposed steam pipe
  - leakage of steam

- leakage of fuel
- odour of gas
- fumes from a liquid chemical spill
- faulty/broken ladder or hand rail
- working at heights
- flammable liquids
- fire and explosion
- electrical hazards
- work area, including:
  - illumination
  - excessive noise from machinery
  - spillage of oil
  - rubbish and combustibles
  - obstruction

**Risk control methods include:**

Risk control methods refer to the systematic process of eliminating or reducing the risk to personnel and property through the application of controls.

It includes the application of the hierarchy of control:

- elimination
- substitution
- isolation
- engineering controls
- administrative controls
- personal protective equipment (PPE)

**PPE includes one or more of the following:**

- thermally insulated gloves
- hard hat protection
- ear protection (muffs or plugs)
- chemical resistant gloves and apron
- respiratory devices
- eye protection
- working protective gloves
- whole body fire-resistant clothing

**Appropriate standards include one or more of the following:**

- legislation
- codes of practice
- manufacturer specifications
- Australian Standards

	<ul style="list-style-type: none"><li>• technical standards (International)</li><li>• industry standards (where applicable)</li></ul>
<b>Procedures include one or more of the following:</b>	<ul style="list-style-type: none"><li>• manufacturer guidelines (e.g. instructions, specifications or checklists)</li><li>• industry operating procedures</li><li>• workplace procedures (e.g. work instructions, operating procedures or checklists)</li></ul>
<b>Equipment includes one or more of the following:</b>	<ul style="list-style-type: none"><li>• gas monitoring equipment</li><li>• water testing equipment</li><li>• fire-fighting equipment</li><li>• workplace first aid equipment</li><li>• work platform and associated gear, including walkways</li></ul>
<b>Communication methods include one or more of the following:</b>	<ul style="list-style-type: none"><li>• verbal and non-verbal language</li><li>• written instructions</li><li>• signage</li><li>• hand signals</li><li>• listening</li><li>• questioning to confirm understanding</li><li>• appropriate worksite protocol</li></ul>
<b>Appropriate personnel includes one or more of the following:</b>	<ul style="list-style-type: none"><li>• production workers</li><li>• maintenance workers</li><li>• supervisors and managers</li><li>• other boiler operators</li><li>• suppliers</li><li>• colleagues</li></ul>
<b>Records include one or more of the following:</b>	<ul style="list-style-type: none"><li>• operating log books</li><li>• maintenance records</li><li>• records of faults and potential faults</li><li>• isolation procedures</li><li>• safe operating procedures</li><li>• daily operating inspections</li><li>• repairs carried out according to manufacturer recommendations and operating procedures</li><li>• workplace record keeping requirements</li></ul>

- details of any daily or periodic maintenance work
- details of yearly programmed or additional maintenance work

**Risk control measures include one or more of the following:**

- barricades and controls
- machine guarding
- fall prevention
- pedestrian controls
- adequate illumination
- noise controls
- signage
- PPE

**Communication equipment includes one or more of the following:**

- two-way radios
- mobile phones
- intercoms
- landline telephones
- pagers
- satellite phones
- computers

**Pre-start up checks include:**

- testing warning lamps or visual warning indicators
- control panel checks
- checks of feedwater supply system
- fuel supply/heat source systems
- operation and position of boiler valves
- combustion air supply system
- boiler water level
- essential fittings and gauges
- selection of personal protective equipment
- inspection and location of inspection and explosion doors (where applicable)
- identification of hazards and management of risks and maintenance problems
- fire-fighting equipment
- manufacturer recommendations and checklists
- relevant records and logs

**Associated equipment includes one or more of**

- multiple fuel sources
- pre-heater
- superheater

**the following:**

- economiser
- superheater safety valves
- economiser relief valves
- air heater
- feedwater heater
- attemperator
- main steam stop valve

**Start-up includes:**

- purge boiler furnace
- heat input
- warm-up reticulation system
- venting the boiler of air, as required
- steam traps and steam line purge system operations
- reticulation line pressure
- steam usage and supply
- superheater
- air heater
- feedwater heater
- economiser

**Maintenance includes:**

- leaking steam pipe
- pressure gauge accuracy
- exposed electrical wiring
- defective illumination in the workplace
- leaking fuel pump gland
- leaks in high pressure feed line
- leaking gauge glass mounting
- leaking safety valve
- isolation procedures, hardware and equipment

**Faults include one or more of the following:**

- abnormal operating conditions
- boiler tube failure
- feedwater supply and/or other major auxiliary loss
- wet steam
- high dissolved oxygen
- pH of water
- high conductivity
- actuator or valve mechanical or electrical fault/failure
- instrument failure
- steam leak

- associated equipment failure

**Diagnosed includes one or more of the following:**

- senses, including:
  - audio
  - smell
  - touch
  - visual
- remote or local indicators and recorders
- computers and alarms, including:
  - visible
  - audible

**Operating log includes:**

- date and time of checking
- each check, examination and results
- printed and signed name of person who performed the checks
- date and time of any lockout or equipment malfunction
- results of tests on boiler or feedwater
- changes in operation

**Valves and fittings include one or more of the following:**

- safety valves
- gauge glasses
- main steam stop valve
- feedwater stop valve
- feed check valve
- blowdown valve
- steam side/line drain valves
- flame failure detection device
- water level controller
- boiler steam pressure gauge
- economiser relief valve
- superheater safety valve

**Monitored includes:**

- water supply system
- checks of steam reticulation line pressure
- usage and supply of steam
- quality of steam
- combustion/heat source system and management
- feedwater system and condensate returns
- fuel system



	<ul style="list-style-type: none"><li>• combustion air supply</li><li>• water level</li><li>• boiler steam pressure</li><li>• boiler and steam manifold valves</li><li>• soot blowers</li><li>• operation of control/safety devices, including control panels</li></ul>
<b>Tested includes one or more of the following:</b>	<ul style="list-style-type: none"><li>• response checks</li><li>• standby plant 'cut in' tests</li><li>• valve operating checks</li><li>• hydrostatic tests</li><li>• performance tests</li><li>• alarm and protection tests</li></ul>
<b>Tests include one or more of the following:</b>	<ul style="list-style-type: none"><li>• pH levels</li><li>• conductivity</li><li>• oxygen</li><li>• TDS</li><li>• hardness</li><li>• other contaminants</li></ul>
<b>Chemicals include one or more of the following:</b>	<ul style="list-style-type: none"><li>• oxygen scavenger</li><li>• feedwater additives</li><li>• other chemicals</li><li>• hardness</li><li>• condensate chemicals</li><li>• pH buffers</li></ul>
<b>Handover includes:</b>	<ul style="list-style-type: none"><li>• previous load requirements</li><li>• maintenance issue, including equipment isolated for maintenance</li><li>• operational incidences</li><li>• read operating log</li><li>• general inspection of boiler to detect any defects</li><li>• accept responsibility of boiler</li><li>• noted equipment malfunctions</li><li>• required equipment tests</li></ul>
<b>Emergencies include one</b>	<ul style="list-style-type: none"><li>• tube failure</li></ul>

- or more of the following:**
- loss of water level
  - power failures
  - inadequate housekeeping
  - explosion
  - fire
  - bomb threat
  - terrorism
  - personal accidents
  - chemical spills
  - major steam leaks
  - major water leaks and flooding
  - natural disasters
  - oil spills

- Appropriate emergency response measures include one or more of the following:**
- identification of emergency
  - isolation of heat source
  - selection and application of appropriate fire-fighting equipment and PPE
  - notification of downstream users
  - operation of boiler only when safe to do so
  - notification of appropriate regulatory authorities, including Commonwealth, state, territory and boiler manufacturer

- Shutdown includes:**
- checks of water level
  - cooling down process
  - valve settings
  - equipment isolation
  - boiler pressure/vacuum
  - fuel/heat source isolation in accordance with manufacturer recommendations
  - boiler post-purge

- Storage mode includes:**
- wet and dry storing
  - open or closed position

## Unit Mapping Information

Release 1. Supersedes and is equivalent to MSABLIC002 Licence to operate an advanced boiler

## Links

Companion Volume implementation guides are found in VETNet -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=d1287d36-dff4-4e9f-ad2c-9d6270054027>

# **Assessment Requirements for MSMBLIC002 Licence to operate an advanced boiler**

## **Modification History**

Release 1. Supersedes and is equivalent to MSABLIC002 Licence to operate an advanced boiler

## **Performance Evidence**

Evidence of competence in this unit must be relevant to and satisfy the requirements of the elements and performance criteria, and include demonstration of:

- following work instructions, SOPs and safe work practices
- complying with Commonwealth, state and territory work, health and safety (WHS) legislation and regulations
- complying with Australian and industry standards, organisation workplace standards, policies, relevant codes of practice requirements at all times
- planning and preparing for work, including identifying potential hazards and implementing appropriate risk control measures
- identifying the type of standard or advanced boiler and associated equipment
- reading and interpreting maintenance records, operating logs and safety data sheets (SDS)
- conducting the appropriate pre-start up checks, including identifying all maintenance requirements and visual faults
- using appropriate tools, equipment and PPE in accordance with procedures
- completing all maintenance and rectification requirements in accordance with manufacturers' and workplace procedures, including recording/reporting requirements
- completing the start-up procedures and bringing the boiler online
- monitoring the boiler and associated equipment, including conducting relevant tests and activities and adjusting boiler water quality in accordance with procedures
- interpreting advanced boiler operation tables and figures
- communicating handover of boiler status and associated equipment to appropriate personnel
- demonstrating emergency operating procedures
- identifying all boiler energy sources required to be isolated and made safe for maintenance, inspection and repairs
- applying advanced boiler cleaning and storage techniques.

## **Knowledge Evidence**

Evidence must be provided that demonstrates knowledge of:

- safe work practices and procedures and use of PPE

- Commonwealth, state and territory WHS/OHS legislation and approved codes of practice relevant to standard and advanced boiler operation
- Australian and industry standards relevant to standard and advanced boiler operation
- basic principles of heat transfer and thermodynamics in relation to standard and advanced boiler operation
- standard and advanced boiler operation steam equipment operating principles and operating methods
- types and characteristics of multiple fuel systems for standard and advanced boilers
- types and characteristics of feedwater systems and treatment, including de-aerator
- types and use of equipment and fittings for operation and maintenance of boilers
- function, purpose and operation of the following:
  - pre-heater
  - superheater
  - economiser
  - air heater
  - feedwater heater
  - attemperator
  - superheater safety valves
  - economiser relief valves
  - main steam stop valve
- standard and advanced boiler and auxiliary equipment characteristics and capabilities
- essential fittings required where more than one boiler is installed (e.g. battery of boilers)
- processes for confirming operational status of a boiler
- workplace communication techniques and procedures
- responsibilities for checking and testing advanced boilers
- location and inspection procedures and techniques for inspection and explosion doors
- steam and boiler hazards for cold start and handover
- hierarchy of risk control
- type and limitations of corrective action and/or adjustments that can be made in response to routine boiler operation problems and emergencies
- various harmful energy sources in standard and advanced boiler operation and the means to effectively isolate these energy sources and make them safe with particular consideration to advanced boilers
- modes of standard and advanced boiler storage and procedures for storing boiler in open or closed condition
- SDS and safe chemical handling and storage methods for boiler operation and cleaning
- procedures for cleaning boilers internally and externally, where required
- procedures for recording, reporting and maintenance of workplace records and information.

## Assessment Conditions

- Assessments must be conducted by an assessor accredited for this high risk work (HRW) licence class in the Commonwealth/state/territory where the licence will be obtained (i.e. an assessor authorised by a Commonwealth/state/territory WHS/OHS regulator).
- Assessment processes and techniques must be appropriate to the language, literacy and numeracy requirements of the work being performed and all assessments must be conducted in the English language.
- Where possible, assessment of performance should be undertaken in the workplace and/or under realistic workplace conditions that typically reflect:
  - the use of full-scale equipment
  - performing tasks/activities within timelines that would be expected in a workplace
  - standard and authorised work practices, safety requirements and environmental constraints.
- Where this is not possible or where personal safety, plant operation or environmental damage are limiting factors, assessment must occur in a sufficiently rigorous simulated environment that reflects realistic operational workplace conditions that cover all aspects of workplace performance, including environment, task skills, task management skills, contingency management skills and job role environment skills.
- Accredited assessors are responsible for ensuring that candidates have access to all tools, equipment, PPE, materials and documentation required, including relevant workplace procedures, product and manufacturing specifications.
- As a minimum, assessors must satisfy applicable regulatory requirements, which include requirements in the Standards for Registered Training Organisations (RTOs) current at the time of assessment.

## Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=d1287d36-dff4-4e9f-ad2c-9d6270054027>

# **MSMENV272 Participate in environmentally sustainable work practices**

## **Modification History**

Release 1. Supersedes and is equivalent to MSAENV272B Participate in environmentally sustainable work practices

## **Application**

This unit of competency covers the skills and knowledge required to effectively find out current resource use and carry out improvements, in own work area, including those that reduce the negative environmental impacts of work practices.

This unit of competency applies to operators/team members who are required to follow procedures to work in an environmentally sustainable manner. This maximises the environmental performance of the process and the organisation, ensures regulatory compliance, and aims to minimise environmental risks and impacts.

This unit of competency applies to all sectors of the manufacturing industry and members of its value chain. It may also be applied to all sections of an organisation, including office and warehouse. This unit will need to be contextualised for the industry sector, organisation and section.

This unit of competency applies to an individual working alone or as part of a team/work group and working in liaison with other shift team members and the control room operator, as appropriate.

No licensing, legislative or certification requirements apply to this unit at the time of publication.

## **Pre-requisite Unit**

Nil

## **Competency Field**

HSE

## Unit Sector

### Elements and Performance Criteria

Elements describe the essential outcomes

Performance criteria describe the performance needed to demonstrate achievement of the element

1	<b>Identify current resource use and environmental issues</b>	1.1	Identify workplace environmental and resource efficiency issues
		1.2	Identify resources used in own work role
		1.3	Find out current usage of resources
2	<b>Comply with environmental regulations</b>	2.1	Read and follow environmental policies and procedures to ensure compliance with federal, state/territory and local government laws, by-laws, regulations and mandated codes of practice, and codes and standards that the organisation applies voluntarily
		2.2	Ask questions and seek clarification relating to environmental work requirements
		2.3	Identify incidents, including breaches or potential breaches of environmental regulations and occurrences outside of standard procedures, and report to appropriate personnel
		2.4	Report environmental incidents using workplace forms and procedures
3	<b>Seek opportunities to improve environmental practices and resource efficiency</b>	3.1	Follow workplace procedures to improve environmental practices and resource efficiency
		3.2	Make suggestions for improvements to environmental workplace practices and work plans



## Foundation Skills

This section describes those language, literacy, numeracy and employment skills that are essential to performance.

Foundation skills essential to performance are explicit in the performance criteria of this unit of competency.

## Range of Conditions

This field allows for different work environments and conditions that may affect performance. Essential operating conditions that may be present (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) are included.

### **Regulatory framework**

The latest version of all legislation, regulations, industry codes of practice and Australian/international standards, or the version specified by the local regulatory authority, must be used, and include one or more of the following:

- legislative requirements, including work health and safety (WHS)
- industry codes of practice and guidelines
- environmental regulations and guidelines
- Australian and other standards
- licence and certification requirements

### **Procedures**

All operations must be performed in accordance with relevant procedures.

Procedures are written, verbal, visual, computer-based or in some other form, and include one or more of the following:

- work instructions
- standard operating procedures (SOPs)
- safe work method statements (SWMS)
- formulas/recipes
- batch sheets
- temporary instructions
- any similar instructions provided for the smooth running of the plant

### **Environmental and resource efficiency issues**

Environmental and resource efficiency issues include minimisation of environmental risks and maximisation of opportunities to improve business environmental performance and to promote more efficient

production and consumption of natural resources. They include one or more of the following:

- minimisation of waste through implementation of the waste management hierarchy
- contribution to climate change and other macro threats that can arise from materials and work processes used
- efficient and effective use of energy and other resources
- seeking alternative sources of energy
- efficient use of materials and appropriate disposal of waste
- use of controls to minimise the risk of environmental damage from hazardous substances
- efficient water use
- reducing emissions
- life cycle analysis applied to issues, such as energy supply, materials, transport and production

## Unit Mapping Information

Release 1. Supersedes and is equivalent to MSAENV272B Participate in environmentally sustainable work practices

## Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=d1287d36-dff4-4e9f-ad2c-9d6270054027>

# Assessment Requirements for MSMENV272 Participate in environmentally sustainable work practices

## Modification History

Release 1. Supersedes and is equivalent to MSAENV272B Participate in environmentally sustainable work practices

## Performance Evidence

Evidence required to demonstrate competence in this unit must be relevant to and satisfy all of the requirements of the elements and performance criteria and must include the ability to:

- find out resources used in own job, including one or more of:
  - making simple measurements, consistent with the job
  - counting the number of items entering/leaving a work area
  - reading indicators in the work area
  - obtaining relevant information from support personnel
- follow environmental policies and identify potential breaches of environmental regulations
- suggest improvements within the limit of own authority.

## Knowledge Evidence

Evidence must be provided that demonstrates knowledge of:

- a basic understanding of:
  - sustainability
  - the contribution to climate change and other macro threats that can arise from materials and work processes used
- the environmental hazards/risks, resource use and inefficiencies associated with own workplace and job
- the relevant environmental and resource efficiency policies and procedures for own work area
- the impact of laws and regulations at a level relevant to the work context.

## Assessment Conditions

- The unit should be assessed holistically and the judgement of competence based on a holistic assessment of the evidence.
- The collection of performance evidence:
  - should occur over a range of situations

- will typically include a supervisor/third-party report focusing on consistent performance and problem recognition and solving. A supervisor /third-party report must be prepared by someone who has a direct, relevant, current relationship with the person being assessed and who is in a position to form a judgement on workplace performance relevant to the unit of competency
- will typically include the use of appropriate tools, equipment and documents
- may use industry-based simulation for all or part of the unit particularly where safety, lack of opportunity or significant cost is an issue.
- Assessment should occur in operational workplace situations. Where this is not possible, or where personal safety or environmental damage are limiting factors, assessment must occur in a sufficiently rigorous simulated environment reflecting realistic operational workplace conditions. This must cover all aspects of workplace performance, including environment, task skills, task management skills, contingency management skills and job role environment skills.
- Assessment in a simulated environment should use evidence collected from one or more of:
  - walk-throughs
  - pilot plant operation
  - demonstration of skills
  - industry-based case studies/scenarios
  - ‘what ifs’.
- Knowledge evidence may be collected concurrently with performance evidence (provided a record is kept) or through an independent process, such as workbooks, written assessments or interviews (provided a record is kept).
- Assessment processes and techniques must be appropriate to the language, literacy and numeracy requirements of the work being performed and the needs of the candidate.
- Conditions for assessment must include access to all tools, equipment, materials and documentation required, including relevant workplace procedures, product and manufacturing specifications associated with this unit.
- The regulatory framework will be reflected in workplace policies and procedures and is not required to be independently assessed.
- Foundation skills are integral to competent performance of the unit and should not be assessed separately.
- As a minimum, assessors must satisfy the Standards for Registered Training Organisations 2015 assessor requirements.

## Links

Companion Volume implementation guides are found in VETNet -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=d1287d36-dff4-4e9f-ad2c-9d6270054027>

# **MSMENV472 Implement and monitor environmentally sustainable work practices**

## **Modification History**

Release 1. Supersedes and is equivalent to MSAENV472B Implement and monitor environmentally sustainable work practices

## **Application**

This unit of competency covers the skills and knowledge required to effectively analyse the workplace in relation to environmentally sustainable work practices, and to implement improvements and monitor their effectiveness.

This unit of competency applies to those who have responsibility for a specific area of work or who lead a work group or team. It addresses the knowledge, processes and techniques necessary to implement and monitor environmentally sustainable work practices, including the development of processes and tools.

It includes identifying areas for improvement, developing plans to make improvements, and implementing and monitoring improvements in environmental performance.

This unit of competency applies to all sectors of the manufacturing industry and members of its value chain. It may also be applied to all sections of an organisation, including office and warehouse. This unit will need to be appropriately contextualised as it is applied across an organisation and across different industry sectors.

This unit of competency applies to an individual working alone or as part of a team/work group and working in liaison with other shift team members and the control room operator, as appropriate.

No licensing, legislative or certification requirements apply to this unit at the time of publication.

## **Pre-requisite Unit**

Nil

## Competency Field

HSE

## Unit Sector

## Elements and Performance Criteria

Elements describe the essential outcomes

Performance criteria describe the performance needed to demonstrate achievement of the element

1	<b>Investigate current practices in relation to resource usage</b>	1.1	Identify environmental regulations applying to the enterprise
		1.2	Assess procedures for assessing compliance with environmental regulations
		1.3	Collect information on environmental and resource efficiency systems and procedures and provide to the work group, as required
		1.4	Measure and record current resource usage by members of the work group
		1.5	Analyse and record current purchasing strategies
		1.6	Analyse current work processes to access information and data, and assist in identifying areas for improvement
2	<b>Set targets for improvements</b>	2.1	Seek input from stakeholders, key personnel and specialists
		2.2	Access external sources of information and data as required
		2.3	Evaluate alternative solutions to workplace environmental issues
		2.4	Set efficiency targets
3	<b>Implement performance</b>	3.1	Source and use techniques/tools to assist in achieving targets

	<b>improvement strategies</b>	3.2	Apply continuous improvement strategies to own work area of responsibility, and communicate ideas and possible solutions to the work group and management
		3.3	Integrate environmental and resource efficiency improvement plans for own work group with other operational activities and implement them
		3.4	Seek suggestions and ideas about environmental and resource efficiency management from stakeholders and act upon them where appropriate
		3.5	Implement costing strategies to fully value environmental assets
4	<b>Monitor performance</b>	4.1	Document outcomes and communicate reports on targets to key personnel and stakeholders
		4.2	Evaluate strategies and environmental performance, including breaches or potential breaches of regulations and occurrences outside of standard procedure which may lead to lower environmental performance
		4.3	Set new targets and investigate and apply new tools and strategies
		4.4	Promote successful strategies and reward participants where possible

## Foundation Skills

This section describes those language, literacy, numeracy and employment skills that are essential to performance.

Foundation skills essential to performance are explicit in the performance criteria of this unit of competency.

## Range of Conditions

This field allows for different work environments and conditions that may affect performance. Essential operating conditions that may be present (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) are included.

## **Regulatory framework**

The latest version of all legislation, regulations, industry codes of practice and Australian/international standards, or the version specified by the local regulatory authority, must be used, and include one or more of the following:

- legislative requirements, including work health and safety (WHS)
- industry codes of practice and guidelines
- environmental regulations and guidelines
- Australian and other standards
- licence and certification requirements
- *ISO 14001:2015 Environmental management systems*

## **Procedures**

All operations must be performed in accordance with relevant procedures.

Procedures are written, verbal, visual, computer-based or in some other form, and include one or more of the following:

- work instructions
- standard operating procedures (SOPs)
- safe work method statements (SWMS)
- formulas/recipes
- batch sheets
- temporary instructions
- any similar instructions provided for the smooth running of the plant

## **Unit Mapping Information**

### **Links**

Companion Volume implementation guides are found in VETNet -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=d1287d36-dff4-4e9f-ad2c-9d6270054027>



# **Assessment Requirements for MSMENV472 Implement and monitor environmentally sustainable work practices**

## **Modification History**

Release 1. Supersedes and is equivalent to MSAENV472B Implement and monitor environmentally sustainable work practices

## **Performance Evidence**

Evidence required to demonstrate competence in this unit must be relevant to and satisfy the requirements of the elements and performance criteria and must include the ability to:

- investigate/analyse resource usage
- evaluate improvement alternatives and set targets
- implement improvements within the limit of own authority
- monitor the performance of improvements.

## **Knowledge Evidence**

Evidence must be provided that demonstrates knowledge of:

- relevant environmental and resource efficiency issues, specific to industry practices, including:
  - contribution to climate change and other macro threats that can arise from materials and work processes used
  - regulated environmental issues
  - issues relevant to licencing conditions
- best practice environmental approaches relevant to own area of responsibility
- methods for measuring and calculating resource usage.

## **Assessment Conditions**

- The unit should be assessed holistically and the judgement of competence based on a holistic assessment of the evidence.
- The collection of performance evidence:
  - should occur over a range of situations
  - will typically include a supervisor/third-party report focusing on consistent performance and problem recognition and solving. A supervisor/third-party report must be prepared by someone who has a direct, relevant, current relationship with the person being assessed and who is in a position to form a judgement on workplace performance relevant to the unit of competency
  - will typically include the use of appropriate tools, equipment and documents

- may use industry-based simulation for all or part of the unit particularly where safety, lack of opportunity or significant cost is an issue.
- Assessment should occur in operational workplace situations. Where this is not possible, or where personal safety or environmental damage are limiting factors, assessment must occur in a sufficiently rigorous simulated environment reflecting realistic operational workplace conditions. This must cover all aspects of workplace performance, including environment, task skills, task management skills, contingency management skills and job role environment skills.
- Assessment in a simulated environment should use evidence collected from one or more of:
  - walk-throughs
  - pilot plant operation
  - demonstration of skills
  - industry based case studies/scenarios
  - ‘what ifs’.
- Knowledge evidence may be collected concurrently with performance evidence (provided a record is kept) or through an independent process, such as workbooks, written assessments or interviews (provided a record is kept).
- Assessment processes and techniques must be appropriate to the language, literacy and numeracy requirements of the work being performed and the needs of the candidate.
- Conditions for assessment must include access to all tools, equipment, materials and documentation required, including relevant workplace procedures, product and manufacturing specifications associated with this unit.
- The regulatory framework will be reflected in workplace policies and procedures and is not required to be independently assessed.
- Foundation skills are integral to competent performance of the unit and should not be assessed separately.
- As a minimum, assessors must satisfy the Standards for Registered Training Organisations 2015 assessor requirements.

## Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=d1287d36-dff4-4e9f-ad2c-9d6270054027>

## **MSMOPS400 Optimise process/plant area**

### **Modification History**

Release 1. Supersedes and is equivalent to MSAPMOPS400A Optimise process/plant area

### **Application**

This unit of competency covers the skills and knowledge required to optimise the process performance of a complete process, plant area or system. It requires optimising a more significant portion of a plant than would be required for one of the PMAOPS3## series. It also requires a more strategic approach to the optimisation than the routine, day-to-day optimisation undertaken as a routine part of plant operation. The optimisation may, or may not involve capital expenditure.

It includes ensuring that the process/plant area complies with health, safety and environment (HSE) requirements, that process, plant and equipment improvement is planned and carried out, and that problems are solved to meet operational needs and ensure that production of finished goods meets customer requirements. It includes all items of equipment and unit operations which form part of the production process of a complete area.

This unit of competency requires the application of detailed operational and process knowledge, including the principles of operation of equipment, and the chemistry and/or physics and/or biology/biochemistry of changes to materials occurring during processing. It embodies a significant breadth and depth of technical knowledge and process understanding which is applied to process improvement.

This competency is typically performed by a senior operator, team leader or frontline manager.

No licensing, legislative or certification requirements apply to this unit at the time of publication.

### **Pre-requisite Unit**

Nil

### **Competency Field**

Operations

## Unit Sector

### Elements and Performance Criteria

Elements describe the essential outcomes

Performance criteria describe the performance needed to demonstrate achievement of the element

- |   |   |  |
|---|---|--|
| 1 | Analyse and evaluate current plant, equipment and processes | 1.1 Compare actual process, plant and equipment performance with requirements and/or historical data/records and/or design performance<br><br>1.2 Identify abnormal or sub-optimal process, plant and equipment performance<br><br>1.3 Identify hazards associated with the plant and equipment<br><br>1.4 Collect and evaluate product, materials and/or process records to determine possible causes for sub-optimal performance<br><br>1.5 Use appropriate techniques to rank possible causes from most to least probable cause   |
| 2 | Develop plan for corrective and/or optimisation action      | 2.1 Analyse causes to determine appropriate corrective action<br><br>2.2 Predict the impact of a change in one unit/area on other related plant units/areas<br><br>2.3 Predict the impact of a change on HSE performance<br><br>2.4 Develop measurable objectives and evaluate alternatives<br><br>2.5 Identify requirements to implement change<br><br>2.6 Consult with stakeholders regarding planned changes and impacts<br><br>2.7 Develop optimisation plan taking account of hazards identified and HSE implications and communicate to appropriate personnel<br><br>2.8 Evaluate optimisation action to determine measures of effectiveness |

- |   |  |     |   |
|---|--|-----|---|
| 3 | Coordinate corrective and/ or optimisation action plan | 3.1 | Coordinate all appropriate unit areas and operations in order to rectify problem causes in process, plant and equipment performance |
|   |  | 3.2 | Initiate and/or implement all required corrective/optimisation actions  |
|   |  | 3.3 | Communicate corrective/optimisation outcomes to all relevant personnel  |
|   |  | 3.4 | Record and maintain log of all relevant information   |
|   |  |     |   |
| 4 | Develop continuous improvement strategies              | 4.1 | Identify opportunities to continuously improve performance of process/plant area  |
|   |  | 4.2 | Develop recommendations for continual improvement of process, plant and equipment effectiveness                                     |
|   |  | 4.3 | Consult with appropriate personnel and implement continuous improvement strategies  |
|   |  | 4.4 | Document implementation of continuous improvement strategies  |

## Foundation Skills

This section describes those language, literacy, numeracy and employment skills that are essential to performance.

Foundation skills essential to performance are explicit in the performance criteria of this unit of competency.

## Range of Conditions

This field allows for different work environments and conditions that may affect performance. Essential operating conditions that may be present (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) are included.

- Regulatory framework**      The latest version of all legislation, regulations, industry codes of practice and Australian/international standards, or the version specified by the local regulatory authority, must be used, and include one or more of the following:
- legislative requirements, including work health and safety (WHS)

- industry codes of practice and guidelines
- environmental regulations and guidelines
- Australian and other standards
- licence and certification requirements

All operations to which this unit applies are subject to stringent HSE requirements, which may be imposed through state/territory or federal legislation, and these must not be compromised at any time. Where there is an apparent conflict between performance criteria and HSE requirements, the HSE requirements take precedence.

**Procedures** All operations must be performed in accordance with relevant procedures.

Procedures are written, verbal, visual, computer-based or in some other form, and include one or more of the following:

- equipment start-up, operation and shutdown procedures
- calibration and maintenance schedules
- quality manuals and procedures
- organisation recording and reporting procedures
- material, production and product specifications
- emergency procedures
- work instructions
- standard operating procedures (SOPs)
- safe work method statements (SWMS)
- formulas/recipes
- batch sheets
- temporary instructions
- any similar instructions provided for the smooth running of the plant

**Process optimisation** Process optimisation requires application of detailed operational and process knowledge to address one or more of the following:

- starting material quality
- yield maximisation
- throughput maximisation
- energy efficiency
- use of utilities
- labour utilisation
- overall cost
- efficient use of equipment

- reducing downtime
- minimisation of waste and rework
- improved workplace layout and work flow

## Unit Mapping Information

Release 1. Supersedes and is equivalent to MSAPMOPS400A Optimise process/plant area

## Links

Companion Volume implementation guides are found in VETNet -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=d1287d36-dff4-4e9f-ad2c-9d6270054027>

# Assessment Requirements for MSMOPS400 Optimise process/plant area

## Modification History

Release 1. Supersedes and is equivalent to MSAPMOPS400A Optimise process/plant area

## Performance Evidence

Evidence required to demonstrate competence in this unit must be relevant to and satisfy the requirements of the elements and performance criteria and demonstrate the ability to:

- identify and interpret information from a range of internal and external sources
- use analytical techniques to identify cause of a complex problem
- determine corrective actions to optimise the condition of the process, plant and equipment
- plan and coordinate corrective/optimisation actions and related changes that may be required
- develop written plans
- complete documentation
- identify and control hazards by applying the hierarchy of control as part of the optimisation process
- distinguish between:
  - optimum and marginal performance of the plant
  - effective and marginal performance corrections and actions
- communicate and consult with stakeholders at all levels
- read and interpret technical information and relevant regulatory requirements
- develop and implement continuous improvement strategies.

## Knowledge Evidence

Evidence must be provided that demonstrates knowledge of:

- hazards that may arise in the job/work environment, including:
  - their possible causes
  - potential consequences
  - appropriate risk controls
- relevant technical theory of the plant area
- an in depth understanding of plant and process across the entire plant area being optimised
- process parameters and limits, including:
  - temperature
  - pressure
  - flow
  - pH



- effects of variations in process conditions and materials
- functions and principles of operation of equipment in the production process
- chemistry and/or physics and/or biology/biochemistry relevant to changes to materials during processing.

## Assessment Conditions

- The unit should be assessed holistically and the judgement of competence based on a holistic assessment of the evidence.
- The collection of performance evidence is best done from a report and/or folio of evidence drawn from:
  - a single project which provides sufficient evidence of the requirements of all the elements and performance criteria
  - multiple smaller projects which together provide sufficient evidence of the requirements of all the elements and performance criteria.
- It is desirable that this evidence comes from implemented optimisation projects. However, where the project does not receive sanction to be implemented, or is otherwise not implemented, then sufficient evidence may be able to be obtained from a detailed implementation plan and a simulated implementation.
- A third-party report, or similar, may be needed to testify to the work done by the individual, particularly when the project has been done as part of a project team.
- Assessment should occur in operational workplace situations. Where this is not possible, or practical, assessment must occur in a sufficiently rigorous simulated environment reflecting realistic operational workplace conditions. This must cover all aspects of workplace performance, including environment, task skills, task management skills, contingency management skills and job role environment skills.
- Knowledge evidence may be collected concurrently with performance evidence or through an independent process, such as workbooks, written assessments or interviews (provided a record is kept).
- Assessment processes and techniques must be appropriate to the language, literacy and numeracy requirements of the work being performed and the needs of the candidate.
- Conditions for assessment must include access to all tools, equipment, materials and documentation required, including relevant workplace procedures, product and manufacturing specifications associated with this unit.
- The regulatory framework will be reflected in workplace policies and procedures and is not required to be independently assessed.
- Foundation skills are integral to competent performance of the unit and should not be assessed separately.
- As a minimum, assessors must satisfy the Standards for Registered Training Organisations 2015 assessor requirements

## Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=d1287d36-dff4-4e9f-ad2c-9d6270054027>



## **MSMOPS401 Trial new process or product**

### **Modification History**

Release 1. Supersedes and is equivalent to MSAPMOPS401A Trial new process or product

### **Application**

This unit of competency covers the skills and knowledge required to take a lead technical role in the trialling of a new or significantly altered product or process. The new/changed product/process has been independently developed and its development is not part of this unit.

The unit of competency applies to a person in a technician role in a plant or a similar role. The technician is expected already to be a technical expert in that part of the plant/process where the trial is being conducted and be able to operate and control all equipment required for the trial. The technician is often the most technically competent member of an operational team. As such, they may not have the 'hands on' role of operating items of equipment; but they are required to have the competence to direct the operation of equipment as appropriate throughout the trial.

Typically the technician will be part of a team during the trial and will work in conjunction with a process/product development expert, such as a chemist or engineer and liaise and cooperate with other members of the team.

Trialling refers to the scale-up and other development steps required to take a new product or process from its design/laboratory trials to full commercial operation on a plant. Trialling may be done on a pilot plant where available and/or on a full scale plant.

This unit of competency does not apply to minor modifications to existing products or processes. Similarly it does not apply to a technician or operator taking part in such trials and/or who is simply following directions from a technician, chemist, engineer, supervisor or manager.

No licensing, legislative or certification requirements apply to this unit at the time of publication.

### **Pre-requisite Unit**

Nil

## Competency Field

Operations

## Unit Sector

## Elements and Performance Criteria

Elements describe the essential outcomes

Performance criteria describe the performance needed to demonstrate achievement of the element

- |   |  |     |   |
|---|--|-----|---|
| 1 | Contribute to the selection of equipment/ process conditions | 1.1 | Liaise with appropriate technical experts   |
|   |  | 1.2 | Interpret properties of materials and desired product characteristics   |
|   |  | 1.3 | Interpret technical specifications/drawings of plant requirements   |
|   |  | 1.4 | Recommend equipment/ancillary equipment appropriate for the materials, products and conditions  |
|   |  | 1.5 | Recommend process conditions appropriate for the equipment, materials and product characteristics   |
|   |  | 1.6 | Recommend feed rates/order/condition appropriate to the process conditions, equipment, materials and product characteristics                |
|   |  | 1.7 | Ensure hazard identification and analysis procedures are completed, including consultation with stakeholders, and findings included in plan |
|   |  | 1.8 | Ensure recommendations meet the identified need   |
| 2 | Prepare for trials   | 2.1 | Determine the availability of resources required, such as materials, equipment, people and skills   |
|   |  | 2.2 | Estimate time required for trial  |
|   |  | 2.3 | Liaise with relevant stakeholders   |
|   |  | 2.4 | Schedule trial at a convenient time   |

- 2.5 Develop documentation for the trial
  - 2.6 Identify potential hazards and required hazard control procedures by applying the hierarchy of control
  - 2.7 Determine permit and other authorisation requirements and special safety and storage requirements
  - 2.8 Verify decisions with appropriate experts/stakeholders
  - 2.9 Ensure people with adequate skills are available for the trial
- 3 Conduct trials
  - 3.1 Ensure hazard controls are implemented prior to commencement
  - 3.2 Run trials
  - 3.3 Maintain communication with all relevant personnel
  - 3.4 Closely monitor critical parameters
  - 3.5 Recognise actual and potential problems
  - 3.6 Make adjustments to process conditions as required during trial
  - 3.7 Sample and test product as required
  - 3.8 Record and report performance data
  - 3.9 Ensure all materials, products and waste are handled correctly
  - 3.10 Leave plant in a condition suitable for routine production to recommence
- 4 Evaluate results and identify modifications
  - 4.1 Interpret data from trial
  - 4.2 Identify factors which might be related to low rates or low charge amounts
  - 4.3 Recommend modifications and improvements required
  - 4.4 Develop and check standard operating procedures (SOPs)

- 4.5 Complete documentation and report to appropriate personnel
- 4.6 Ensure all relevant staff have required skill levels for the introduction of the new process

## Foundation Skills

This section describes those language, literacy, numeracy and employment skills that are essential to performance.

Foundation skills essential to performance are explicit in the performance criteria of this unit of competency.

## Range of Conditions

This field allows for different work environments and conditions that may affect performance. Essential operating conditions that may be present (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) are included.

### Regulatory framework

The latest version of all legislation, regulations, industry codes of practice and Australian/international standards, or the version specified by the local regulatory authority, must be used, and include one or more of the following:

- legislative requirements, including work health and safety (WHS)
- industry codes of practice and guidelines
- environmental regulations and guidelines
- Australian and other standards
- licence and certification requirements

All operations to which this unit applies are subject to stringent health, safety and environment (HSE) requirements, which may be imposed through state/territory or federal legislation, and these must not be compromised at any time. Where there is an apparent conflict between performance criteria and HSE requirements, the HSE requirements take precedence.

### Procedures

All operations must be performed in accordance with relevant procedures.

Procedures are written, verbal, visual, computer-based or in some other form, and include one or more of the following:

- emergency procedures
- work instructions
- SOPs
- safe work method statements (SWMS)
- formulas/recipes
- batch sheets
- temporary instructions
- any similar instructions provided for the smooth running of the plant

**Technical experts**

Technical experts include one or more of the following:

- manufacturers
- chemists
- engineering personnel
- designers
- WHS advisors
- maintenance personnel
- potential customers

**Non-routine problems**

Routine problems must be resolved by applying known solutions.

Non-routine problems must be resolved by applying operational knowledge to develop new solutions, either individually or in collaboration with relevant experts, to:

- determine problems needing action
- determine possible fault causes
- develop solutions to problems which do not have a known solution
- follow through items initiated until final resolution has occurred
- report problems outside area of responsibility to designated person

Non-routine problems are unexpected problems, or variations of previous problems and include one or more of the following:

- mixing is poor
- materials do not behave as expected
- process/reaction does not proceed/proceeds too slowly
- process/reaction proceeds too quickly/runs away
- yield is low
- quality is out of specification
- process is unstable
- instrumentation is not sufficiently sensitive/too sensitive

- variable catalyst activity
- surging flow/pressure

Operational knowledge includes one or more of the following:

- procedures
- training
- technical information, such as journals and engineering specifications
- remembered experience
- relevant knowledge obtained from appropriate people

### **Hazard analysis procedures**

Hazard analysis procedures must be undertaken, however, it is not required that the candidate conducts the procedures. Hazard analysis procedures include one or more of the following:

- job safety analysis (JSA)/job hazard analysis (JHA)
- hazard and operability (HAZOP) studies
- hazard analysis (HAZAN) studies
- similar company specified procedures

## **Unit Mapping Information**

Release 1. Supersedes and is equivalent to MSAPMOPS401A Trial new process or product

## **Links**

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=d1287d36-dff4-4e9f-ad2c-9d6270054027>



# Assessment Requirements for MSMOPS401 Trial new process or product

## Modification History

Release 1. Supersedes and is equivalent to MSAPMOPS401A Trial new process or product

## Performance Evidence

Evidence required to demonstrate competence in this unit must be relevant to and satisfy the requirements of the elements and performance criteria and demonstrate the ability to:

- analyse technical information from a range of sources
- determine recommendations for new process or product, including:
  - materials
  - equipment
  - process and process conditions
  - required variations in process variables
- plan the trials
- conduct trials
- communicate and liaise with people at a range of levels about technical matters
- write technical documentation, including specifications and procedures required for the trial
- ensure formal hazard analysis procedures are undertaken
- recognise early warning signs of equipment/processes or potential problems needing attention
- isolate the causes of problems to an item of equipment within the plant system
- identify any additional skills needs.

## Knowledge Evidence

Evidence must be provided that demonstrates knowledge of:

- organisation procedures
- relevant technical theory of the plant area
- chemistry and/or physics and/or biology/biochemistry relevant to changes to materials during processing
- effects of variations in process conditions and materials
- routine and non-routine problems that may arise, the range of possible causes and processes to develop solutions
- methods of changing rate and the advantages and disadvantages of each
- methods of controlling other process variables and the advantages and disadvantages of each.

## Assessment Conditions

- The unit should be assessed holistically and the judgement of competence based on a holistic assessment of the evidence.
- The collection of performance evidence is best done from a report and/or folio of evidence drawn from:
  - a single project which provides sufficient evidence of the requirements of all the elements and performance criteria
  - multiple smaller projects which together provide sufficient evidence of the requirements of all the elements and performance criteria.
- The trial may, or may not be a success.
- A third-party report, or similar, may be needed to testify to the work done by the individual, particularly when the project has been done as part of a project team.
- Assessment should occur in operational workplace situations. Where this is not possible or practical, assessment must occur in a sufficiently rigorous simulated environment reflecting realistic operational workplace conditions. This must cover all aspects of workplace performance, including environment, task skills, task management skills, contingency management skills and job role environment skills.
- Knowledge evidence may be collected concurrently with performance evidence or through an independent process, such as workbooks, written assessments or interviews (provided a record is kept).
- Assessment processes and techniques must be appropriate to the language, literacy and numeracy requirements of the work being performed and the needs of the candidate.
- Conditions for assessment must include access to all tools, equipment, materials and documentation required including relevant workplace procedures, product and manufacturing specifications associated with this unit.
- The regulatory framework will be reflected in workplace policies and procedures and is not required to be independently assessed.
- Foundation skills are integral to competent performance of the unit and should not be assessed separately.
- As a minimum, assessors must satisfy the Standards for Registered Training Organisations 2015 assessor requirements.

## Links

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## **MSMPER200 Work in accordance with an issued permit**

### **Modification History**

Release 1. Supersedes and is equivalent to MSAPMPER200C Work in accordance with an issued permit

### **Application**

This unit of competency covers the skills and knowledge required to work in accordance with an issued permit. It aims to ensure that people working under a permit to work understand the system, know the limitations of the permit under which they are working and comply with all the requirements of the permit. The people to whom this unit applies may be called 'permit recipients' or 'permit holders' by some organisations. Some organisations call 'permits' 'clearances'.

This unit of competency applies to persons who are required to conduct work activities under the authority of an issued permit to work and within the context and requirements of that permit. This typically applies to all work done by maintenance staff and contractors and also to any other non-process work performed on the plant.

This unit of competency applies to an individual working alone or as part of a team/work group and working in liaison with other team members, as appropriate.

No licensing, legislative or certification requirements apply to this unit at the time of publication.

### **Pre-requisite Unit**

Nil

### **Competency Field**

Work Control Systems

### **Unit Sector**

### **Elements and Performance Criteria**

Elements describe the essential outcomes

Performance criteria describe the performance needed to demonstrate achievement of the element

- |   |   |     |   |
|---|---|-----|---|
| 1 | <b>Apply for permit</b>                 | 1.1 | Confirm the scope and location of the work to be done   |
|   |   | 1.2 | Identify the need for a work permit for the work to be carried out  |
|   |   | 1.3 | Identify the type of work permit required   |
|   |   | 1.4 | Collate information required for the issue of the permit  |
|   |   | 1.5 | Apply for the permit following the organisation's requirements  |
|   |   |     |   |
| 2 | <b>Identify the scope of the permit</b> | 2.1 | Check that work to be done complies with the permit type  |
|   |   | 2.2 | Check that the scope and location of work comply with the permit issued   |
|   |   | 2.3 | Identify hazards and check that the hazard controls specified on the permit are consistent with the hazard analysis   |
|   |   | 2.4 | Check that preparations specified on the permit have been completed   |
|   |   | 2.5 | Sign onto/receive the permit  |
|   |   |     |   |
| 3 | <b>Prepare for permitted work</b>       | 3.1 | Maintain safe working conditions and environment by using available isolation procedures and safety equipment   |
|   |   | 3.2 | Monitor plant conditions and hazards to ensure work under the permit remains safe   |
|   |   | 3.3 | Ensure that appropriate personal protective equipment (PPE) is selected and worn, and emergency equipment is available, as required by the permit and relevant procedures |
|   |   | 3.4 | Inspect work area to ensure safety and compliance with permit requirements and procedures   |

- |   |   |     |   |
|---|---|-----|---|
| 4 | <b>Work in accordance with an issued permit</b> | 4.1 | Use required hazard reduction/control measures  |
|   |   | 4.2 | Comply with requirements of the permit, including safety observer if required   |
|   |   | 4.3 | Display issued permit on work site as required  |
|   |   | 4.4 | Ensure compliance with scope, location and timeframe specified in the permit.   |
|   |   | 4.5 | Seek variation to permit/new permit if job or work environment vary from that specified in the permit                     |
|   |   | 4.6 | Suspend job and make worksite safe before leaving job   |
|   |   | 4.7 | Formally seek and receive authorised extensions to the permit when required   |
|   |   | 4.8 | Give end-of-day status report to permit issuer  |
|   |   |     |   |
| 5 | <b>Complete permit to work</b>                  | 5.1 | Obtain new permit or have existing permit revalidated before work is recommenced  |
|   |   | 5.2 | Check the work conducted against the issued permit to ensure that all the nominated work requirements have been satisfied |
|   |   | 5.3 | Monitor general housekeeping to ensure that the site has been left in a clean and safe condition                          |
|   |   | 5.4 | Ensure personal lock outs/tag outs/isolations are removed in accordance with procedures                                   |
|   |   | 5.5 | Communicate status of the work conducted and the results of the permit to relevant personnel                              |
|   |   | 5.6 | Complete documentation as required and have permit signed off when job is completed                                       |

## Foundation Skills

This section describes those language, literacy, numeracy and employment skills that are essential to performance.

Foundation skills essential to performance are explicit in the performance criteria of this unit of competency.

## Range of Conditions

This field allows for different work environments and conditions that may affect performance. Essential operating conditions that may be present (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) are included.

<b>Regulatory framework</b>	<p>The latest version of all legislation, regulations, industry codes of practice and Australian/international standards, or the version specified by the local regulatory authority, must be used, and include one or more of the following:</p> <ul style="list-style-type: none"><li>• legislative requirements, including work health and safety (WHS)</li><li>• industry codes of practice and guidelines</li><li>• environmental regulations and guidelines</li><li>• Australian and other standards</li><li>• licence and certification requirements</li></ul>
<b>Procedures</b>	<p>All operations must be performed in accordance with relevant procedures. Procedures are written, verbal, visual, computer-based or in some other form, and include one or more of the following:</p> <ul style="list-style-type: none"><li>• work instructions</li><li>• standard operating procedures (SOPs)</li><li>• safe work method statements (SWMS)</li><li>• temporary instructions</li><li>• any similar instructions provided</li></ul>
<b>Work permits</b>	<p>Work permits include one or more of the following:</p> <ul style="list-style-type: none"><li>• cold work/general permit to work</li><li>• excavation</li><li>• hot work</li><li>• vehicle entry</li><li>• minor repairs</li><li>• working at heights</li><li>• confined space entry</li><li>• other special permits where there is an appropriate sign-off as required</li></ul>
<b>Information required for</b>	<p>Information required for the issue of the permit includes one or more of</p>

- permit** the following:
- work description
  - tools to be used
  - process/methods of work/SOPs

Where hazardous materials are being used relevant material safety data sheets (MSDS) will also be required.

- Hazards** Hazards include one or more of the following:
- slips and trips
  - emergency equipment is unavailable
  - smoke, darkness and heat
  - heat, smoke, dust or other atmospheric hazards
  - electricity
  - gas
  - gases and liquids under pressure
  - structural hazards
  - structural collapse
  - industrial (machinery, equipment and product)
  - equipment or product mass
  - noise, rotational equipment or vibration
  - limited head spaces or overhangs
  - work where a fall by a person from one level to another is reasonably likely to cause injury
  - working in restricted or confined spaces, or in environments subjected to heat, noise, dusts or vapours
  - flammability and explosivity
  - hazardous products and materials
  - unauthorised personnel
  - sharp edges, protrusions or obstructions, swarf and scrap
  - spills or leaks
  - extreme weather
  - other hazards that might arise
  - unsafe conditions developing through failure to conform with the provisions of a work permit
  - hazards created by the nature or location of the work
  - hazards created by the proximity of the work to other work or normal operations

- Display issued** The permit holder must keep the issued permit with them on site. It must

**permit**

be displayed or ready to be shown as required by the site/job requirements, including one or more of the following:

- displayed in a mounting provided by the site
- accessible in a folder which is on the worksite
- carried in overall pockets in a manner which allows it to be readily shown on request

## Unit Mapping Information

Release 1. Supersedes and is equivalent to MSAPMPER200C Work in accordance with an issued permit

## Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=d1287d36-dff4-4e9f-ad2c-9d6270054027>



# Assessment Requirements for MSMPER200 Work in accordance with an issued permit

## Modification History

Release 1. Supersedes and is equivalent to MSAPMPER200C Work in accordance with an issued permit

## Performance Evidence

Evidence required to demonstrate competence in this unit must be relevant to and satisfy all of the requirements of the elements and performance criteria, and demonstrate the ability to:

- identify type and scope of permit relevant to the job
- interpret and implement permit conditions
- identify changes to conditions which may lead to the permit being revoked before the job is completed
- monitor hazards and hazard controls.

## Knowledge Evidence

Evidence must be provided that demonstrates knowledge of:

- different types of permits and the work they cover, including three (3) or more of:
  - cold work/general permit to work
  - excavation
  - hot work
  - vehicle entry
  - minor repairs
  - working at heights
  - confined space entry
  - other permit types as used on site
- the impact of the regulatory framework and organisation procedures under which the permit operates upon the particular job requiring the permit
- hazards associated with tasks covered by the permit and related hazard controls
- types of tests/inspections required for the issue of work permits including one (1) or more of:
  - atmospheric, oxygen/breathability
  - temperature
  - humidity
  - combustibles, oxygen, enriched or reduced
  - electricity
  - stored pressure/energy

- flammability/explosivity
- toxicity
- electricity
- stored energy/pressure.

## Assessment Conditions

- Competency must be achieved before performing this work unsupervised. Therefore this unit will typically be assessed off the job. Where assessment is undertaken on the job, appropriate supervision and safety precautions must be provided.
- The unit should be assessed holistically and the judgement of competence based on a holistic assessment of the evidence.
- The collection of performance evidence:
  - should provide evidence of the ability to perform over the range of situations which might be expected to be encountered, including typical disruptions to normal, smooth work conditions
  - will typically include the use of appropriate tools, equipment and safety gear requiring demonstration of preparation, operation, completion and responding to problems
  - may use industry-based simulation particularly where safety, lack of opportunity or significant cost is an issue.
- Off-the-job assessment must sufficiently reflect realistic operational workplace conditions that cover all aspects of workplace performance, including environment, task skills, task management skills, contingency management skills and job role environment skills.
- Assessment in a simulated environment should use evidence collected from one or more of:
  - walk-throughs
  - demonstration of skills
  - industry-based case studies/scenarios
  - ‘what ifs’.
- Knowledge evidence may be collected concurrently with performance evidence (provided a record is kept) or through an independent process, such as workbooks, written assessments or interviews (provided a record is kept).
- Assessment processes and techniques must be appropriate to the language, literacy and numeracy requirements of the work being performed and the needs of the candidate.
- Conditions for assessment must include access to all tools, equipment, materials and documentation required, including relevant workplace procedures, product and manufacturing specifications associated with this unit.
- The regulatory framework will be reflected in workplace policies and procedures and is not required to be independently assessed.
- Foundation skills are integral to competent performance of the unit and should not be assessed separately.
- As a minimum, assessors must satisfy the Standards for Registered Training Organisations 2015 assessor requirements.

## Links

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## **MSMPER201 Monitor and control work permits**

### **Modification History**

Release 1. Supersedes and is equivalent to MSAPMPER201A Monitor and control work permits

### **Application**

This unit of competency covers the skills and knowledge required to monitor a work situation in which the activity is conducted under a permit to work. The individual will be required to monitor the work situation for conformance to the permit and immediately intervene if the parameters of the permit are not met or work proceeds outside the boundaries set by the permit.

This role is typically carried out by the plant operator for that area or other suitably qualified person.

The role of ‘hole watcher’ and ‘fire watcher’ are covered by MSMPER202 Observe permit work

This unit of competency carries a high level of responsibility and the level and area of responsibility of the role is typically prescribed by the permit process.

This unit of competency applies to the activities and functions associated with work carried out in a hazard controlled environment.

Not all sites/plants will have all permits. Some sites will call permits by other names, e.g. clearances.

No licensing, legislative or certification requirements apply to this unit at the time of publication.

### **Pre-requisite Unit**

Nil

### **Competency Field**

Work control systems

## Unit Sector

### Elements and Performance Criteria

Elements describe the essential outcomes		Performance criteria describe the performance needed to demonstrate achievement of the element	
1	Identify and monitor permit conditions	1.1	Identify permit requirements
		1.2	Monitor conditions to ensure that the work being conducted conforms to the issued permit requirements
		1.3	Identify and communicate changes in the operating conditions or requirements of the permit to permit holders to ensure they are kept aware of any hazards
2	Control work permit systems	2.1	Check and verify the permit holder's knowledge of the issued permit and its requirements before allowing any work to be undertaken
		2.2	Control work activities to comply with the work permit system and safety procedures
		2.3	Undertake site inspections to ensure that the work to be undertaken is in sequence and completed in a safe and coordinated manner
		2.4	Identify hazards, and confirm with those undertaking the permitted work that control measures, as defined in the permit, are established
3	Identify and action non-compliance	3.1	Identify conditions of active permits
		3.2	Take corrective action upon incidences of non-compliance with permit conditions through the withdrawal or suspension of the issued permit
		3.3	Report and record incidents of non-compliance according to procedures

4	Confirm compliance with permit	4.1	Complete checklists in accordance with standard procedures
		4.2	Document and communicate findings to appropriate personnel

## Foundation Skills

This section describes those language, literacy, numeracy and employment skills that are essential to performance.

Foundation skills essential to performance are explicit in the performance criteria of this unit of competency.

## Range of Conditions

This field allows for different work environments and conditions that may affect performance. Essential operating conditions that may be present (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) are included.

### Regulatory framework

The latest version of all legislation, regulations, industry codes of practice and Australian/international standards, or the version specified by the local regulatory authority, must be used, and include one or more of the following:

- legislative requirements, including work health and safety (WHS)
- industry codes of practice and guidelines
- environmental regulations and guidelines
- Australian and other standards
- licence and certification requirement
- Dangerous Goods regulations
- Hazardous substances regulations
- Hazardous Substances Information System
- Major hazard facility requirements, if relevant
- Australian Standard AS 2865-2009 Confined spaces
- Australian Standard AS 1674 Set-2007 Safety in welding and allied processes (covers all hot work)
- Australian Standard AS 4024.1-2014 Series - Safety of machinery
- Australian Standard AS/NZ 1715:2009 Selection use and maintenance of respiratory protective equipment
- National Standard for Plant [NOHSC:1010 (1994)]
- National exposure standards for atmospheric contaminants in the

occupational environment [NOHSC:1003 (1995)]

**Procedures**

All operations must be performed in accordance with relevant procedures.

Procedures are written, verbal, visual, computer-based or in some other form, and include one or more of the following:

- permit control system
- emergency procedures
- work instructions
- standard operating procedures (SOPs)
- safe work method statements (SWMS)
- temporary instructions
- any similar instructions provided for the smooth running of the plant

**Work permits**

Work permits include one or more of the following:

- cold work
- excavation
- vehicle entry
- minor repairs
- working at heights
- hot work
- confined space
- electrical
- increased hazard
- permits covering a single plant item or plant area, such as might be an operator's scope of responsibility
- other relevant permits

***The work control (permit) system***

The work permit system includes:

- types of permits
- legislative/regulatory/standards framework
- roles and responsibilities of parties under the permit system
- specifications for undertaking the work covered by a permit
- alternative ways of conducting a job

**Work**

Work specifications include one or more of the following:

<b><i>specifications</i></b>	<ul style="list-style-type: none"><li>• any requirements for testing of atmospheric conditions and ventilation</li><li>• safety structures and control measures</li><li>• communications</li><li>• incident response</li><li>• equipment which can and cannot be used</li></ul>
<b><i>Safety structures and control measures</i></b>	<p>Safety structures and control measures include one or more of the following:</p> <ul style="list-style-type: none"><li>• isolations</li><li>• lockout/tag out</li><li>• barriers and signage</li><li>• emergency response</li><li>• gas testing/atmosphere monitoring</li><li>• standby person</li><li>• other measures specified in the permit</li></ul>
<b>Monitor</b>	<p>Monitor includes observing conditions of the workplace at a frequency appropriate to the risk and work practices, and includes one or more of the following:</p> <ul style="list-style-type: none"><li>• supervision/monitoring of contractors and/or employees</li><li>• verification of permits, licences and tests</li><li>• document control</li><li>• checking work activities against permit conditions, site-specific safety procedures and requirements and relevant legislation/codes</li><li>• identifying non-compliances</li><li>•</li></ul>
<b>Tools and equipment</b>	<p>Tools and equipment include one or more of the following:</p> <ul style="list-style-type: none"><li>• locks and tags</li><li>• blinds/blanks</li><li>• blind/blank list</li><li>• gas testers and monitors</li><li>• barricades</li><li>• signage</li><li>• communications equipment</li><li>• process and equipment drawings</li><li>•</li></ul>
<b>Hazards</b>	<p>Hazards include one or more of:</p> <ul style="list-style-type: none"><li>• process isolations incomplete</li></ul>



- mechanical and electrical isolations not in place
- atmospheric testing incomplete and atmosphere not safe
- electricity
- gas
- gases and liquids under pressure
- structural hazards
- structural collapse
- equipment failures
- industrial (machinery, equipment and product)
- equipment or product mass
- noise, rotational equipment or vibration
- limited head spaces or overhangs
- working where a fall is reasonably likely, in restricted or confined spaces, or in environments subjected to heat, noise, dusts, smoke, darkness, vapours or other atmospheric hazards
- flammability and explosivity
- hazardous products and materials
- unauthorised personnel
- sharp edges, protrusions or obstructions
- slippery surfaces, spills or leaks
- extreme weather
- other hazards that might arise

## Unit Mapping Information

Release 1. Supersedes and is equivalent to MSAPMPER201A Monitor and control work permits

## Links

Companion Volume implementation guides are found in VETNet -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=d1287d36-dff4-4e9f-ad2c-9d6270054027>

# Assessment Requirements for MSMPER201 Monitor and control work permits

## Modification History

Release 1. Supersedes and is equivalent to MSAPMPER201A Monitor and control work permits

## Performance Evidence

Evidence required to demonstrate competence in this unit must be relevant to and satisfy the requirements of the elements and performance criteria and demonstrate the ability to:

- identify activities requiring a permit and type of permit required
- monitor the conditions of work under the permit
- identify changes in work and site circumstances that affect permit
- communicate effectively with team/work group and other personnel to:
  - explain the requirements of the permit
  - explain and verify complex issues and requirements relevant to permit conditions
  - withdraw or cause work to cease outside permit conditions
  - explain and implement safety and incident response procedures
- identify and report any non-conformance with permit conditions
- speak clearly and unambiguously in the language of the worksite
- complete workplace forms and reports
- differentiate between acceptable and unacceptable conditions

identify hazards and apply relevant hazard controls.

## Knowledge Evidence

Evidence must be provided that demonstrates knowledge of:

- organisation procedures, including:
  - work permit systems
  - safety, emergency and hazard control
  - incident response
  - plant isolation and preparation requirements
  - relevant organisation procedures
- hazards that may arise in the job and plant, including:
  - their possible causes
  - potential consequences
  - appropriate risk controls
- functions and components of a permit system

- types of permits, what they cover, limitations and associated hazards.

## Assessment Conditions

- Competency must be achieved before performing this work unsupervised. Therefore this unit will typically be assessed off the job. Where assessment is undertaken on the job appropriate supervision and safety precautions must be provided.
- The unit should be assessed holistically and the judgement of competence shall be based on a holistic assessment of the evidence.
- The collection of performance evidence:
  - should provide evidence of the ability to perform over the range of situations which might be expected to be encountered, including typical disruptions to normal, smooth work conditions
  - must include the use of typical permits
  - may use industry-based simulation particularly where safety, lack of opportunity or significant cost is an issue.
- Off-the-job assessment must sufficiently reflect realistic operational workplace conditions that cover all aspects of workplace performance, including environment, task skills, task management skills, contingency management skills and job role environment skills.
- Assessment in a simulated environment should use evidence collected from one or more of:
  - walk-throughs
  - demonstration of skills
  - industry-based case studies/scenarios
  - 'what ifs'.
- Knowledge evidence may be collected concurrently with performance evidence (provided a record is kept) or through an independent process, such as workbooks, written assessments or interviews (provided a record is kept).
- Assessment processes and techniques must be appropriate to the language, literacy and numeracy requirements of the work being performed and the needs of the candidate.
- Conditions for assessment must include access to all tools, equipment, materials and documentation required, including relevant workplace procedures, product and manufacturing specifications associated with this unit.
- The regulatory framework will be reflected in workplace policies and procedures and is not required to be independently assessed.
- Foundation skills are integral to competent performance of the unit and should not be assessed separately.
- As a minimum, assessors must satisfy the Standards for Registered Training Organisations 2015 assessor requirements.

## Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=d1287d36-dff4-4e9f-ad2c-9d6270054027>



## MSMPER300 Issue work permits

### Modification History

Release 2. Addition of information missing from the Assessment Requirements. Equivalent.

Release 1. Supersedes and is equivalent to MSAPMPER300C Issue work permits

### Application

This unit of competency covers the skills and knowledge required to issue work permits. It covers an understanding of the permit system and the limitations of each permit, and making decisions regarding the need for and correct use of each permit. This unit includes the issue of any and all permits. Permits are called 'clearances' by some organisations.

This unit of competency applies to personnel who are required to issue appropriate permits to work to persons conducting a variety of activities in workplace environments in which hazards exist or specific procedures need to be followed and monitored to protect the safety of personnel and the integrity of plant or process.

This unit of competency applies to an individual working alone or as part of a team or group and working in liaison with other shift team members and the control room operator, as appropriate.

No licensing, legislative or certification requirements apply to this unit at the time of publication.

### Pre-requisite Unit

MSMWHS201 Conduct hazard analysis

### Competency Field

Work control systems

### Unit Sector

### Elements and Performance Criteria

Elements describe the      Performance criteria describe the performance needed to

essential outcomes		demonstrate achievement of the element	
1	Identify need for work permit	1.1	Identify work permit needed from job scope
		1.2	Confirm with appropriate personnel the need for work permit
2	Ensure job site is prepared for authorised work	2.1	Inspect the job site
		2.2	Identify work health and safety (WHS) and environmental requirements
		2.3	Conduct hazard identification and risk assessment
		2.4	Ensure job site is prepared in accordance with specified work permit conditions
		2.5	Check permit conditions and report to appropriate personnel
		2.6	Conduct job site testing in accordance with procedures
3	Raise and issue work permits	3.1	Ensure conditions are documented on permit
		3.2	Ensure appropriate testing is carried out and results documented in accordance with procedures
		3.3	Determine an appropriate validity period
		3.4	Check that permit conditions are met (i.e. validate permit)
		3.5	Complete and authorise permit
		3.6	Ensure recipient is advised of and agrees to abide by the requirements of the permit
		3.7	Ensure recipient signs permit
4	Monitor work for compliance	4.1	Ensure regular job site inspections are done
		4.2	Monitor conditions and work progress and respond

- appropriately to changing conditions and circumstances
- 4.3 Ensure permit currency and revalidate as required
  - 4.4 Ensure permit is displayed in accordance with procedures
  - 4.5 Identify and act on incidences of non-compliance and report promptly to relevant personnel
  - 4.6 Withdraw/cancel permit if conditions warrant it
  - 4.7 Report any issues which arise with regard to work under the permit in accordance with procedures
- 5      Receive end of day report
- 5.1 Receive end of day report from permit recipients
  - 5.2 Confirm job progress and status.
  - 5.3 Revalidate/arrange for revalidation of permit as required
  - 5.4 Confirm work area has been left safe
  - 5.5 Handover ongoing permits and status of suspended permits to oncoming shift
- 6      Close work permit
- 6.1 Inspect job status
  - 6.2 Check that work undertaken satisfies permit conditions
  - 6.3 Ensure that work site is ready for a safe return to working conditions
  - 6.4 Check required returns to work status have been completed
  - 6.5 Sign off documentation and close permit in accordance with procedures
  - 6.6 Communicate worksite and process status to relevant personnel

## Foundation Skills

This section describes those language, literacy, numeracy and employment skills that are essential to performance.

Foundation skills essential to performance are explicit in the performance criteria of this unit of competency.

## Range of Conditions

This field allows for different work environments and conditions that may affect performance. Essential operating conditions that may be present (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) are included.

### **Regulatory framework**

The latest version of all legislation, regulations, industry codes of practice and Australian/international standards, or the version specified by the local regulatory authority, must be used, and include one or more of the following:

- legislative requirements, including work health and safety (WHS)
- industry codes of practice and guidelines
- environmental regulations and guidelines
- Australian and other standards
- licence and certification requirements
- Dangerous Goods regulations
- Hazardous substances regulations
- Hazardous Substances Information System
- Australian Standard AS 2865 2009 Confined spaces
- Australian Standard AS 1674 Set-2007, Safety in welding and allied processes (covers all hot work)
- Australian Standard AS 4024.1-2014 Series - Safety of machinery
- Australian Standard AS/NZ 1715:2009 Selection use and maintenance of respiratory protective equipment
- National Standard for Plant [NOHSC:1010 (1994)]
- National exposure standards for atmospheric contaminants in the occupational environment [NOHSC:1003 (1995)]

### ***Procedures***

All operations are must be performed in accordance with relevant procedures.

Procedures are written, verbal, visual, computer-based or in some other form, and include one or more of the following:

- emergency procedures
- workplace procedures



- work instructions
- standard operating procedures (SOPs)
- safe work method statements (SWMS)
- temporary instructions
- company policy and permit control systems

***Work permits***

Work permits include one or more of the following:

- cold work
- excavation
- vehicle entry
- minor repairs
- working at heights
- hot work
- confined space
- electrical
- increased hazard
- permits covering a single plant or plant area, such as might be an operator's scope of responsibility
- other relevant permits

***The work permit system***

The work permit system includes:

- types of permits
- legislative/regulatory/standards framework
- roles and responsibilities of parties under the permit system
- specifications for undertaking the work covered by a permit
- alternative ways of conducting a job

***Work specifications***

Work specifications include:

- any requirements for testing of atmospheric conditions and ventilation
- safety structures and control measures
- communication
- incident response
- equipment which can and cannot be used

***Safety structures and control measures***

Safety structures and control measures include one or more of the following:

- isolations

- lockout/tag out
- barriers and signage
- emergency response
- gas testing/atmosphere monitoring
- standby person
- other measures specified in the permit

***Confined space***

AS 2865 2009 *Confined spaces* definition given for confined space is used in this Training Package, i.e.:

'An enclosed or partially enclosed space that is not intended or designed primarily for human occupancy, within which there is a risk of one or more of the following:

- (a) An oxygen concentration outside the safe oxygen range
- (b) A concentration of airborne contaminant that may cause impairment, loss of consciousness or asphyxiation
- (c) A concentration of flammable airborne contaminant that may cause injury from fire or explosion
- (d) Engulfment in a stored free-flowing solid or a rising level of liquid that may cause suffocation or drowning'

***Hot work***

Hot work includes:

- any activity which has the potential to be or cause a source of ignition

***Hazards***

Hazards include one or more of the following:

- slip/trip hazards
- PPE unavailable and not functional
- emergency equipment unavailable
- smoke, darkness and heat
- heat, smoke, dust or other atmospheric hazards
- electricity
- gas
- gases and liquids under pressure
- structural hazards
- structural collapse
- equipment in unsafe condition with hazard controls not functional
- industrial (machinery, equipment and product)
- equipment or product mass
- noise, rotational equipment or vibration

- limited head spaces or overhangs
- working at heights, in restricted or confined spaces, or in environments subjected to heat, noise, dusts or vapours
- fire and explosion
- flammability and explosivity
- hazardous products and materials
- unauthorised personnel
- sharp edges, protrusions or obstructions, swarf and scrap
- spills or leaks
- extreme weather
- unsafe conditions developing through failure to conform with the provisions of a work permit
- hazards created by the nature or location of the work
- hazards created by the proximity of the work to other work or normal operations
- other hazards that might arise

## Unit Mapping Information

Release 2. Addition of information missing from the Assessment Requirements. Equivalent.

Release 1. Supersedes and is equivalent to MSAPMPER300C Issue work permits

## Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=d1287d36-dff4-4e9f-ad2c-9d6270054027>

# Assessment Requirements for MSMPER300 Issue work permits

## Modification History

Release 2. Addition of information missing from the Assessment Requirements. Equivalent.

Release 1. Supersedes and is equivalent to MSAPMPER300C Issue work permits

## Performance Evidence

Evidence required to demonstrate competence in this unit must be relevant to and satisfy all of the requirements of the elements and performance criteria and demonstrate the ability to:

- recognise types of work permits required for different situations
- undertake and interpret hazard analysis
- conduct and interpret tests/inspections for gas or other hazards, including one or more of:
  - atmospheric, including explosivity
  - flammability
  - toxicity
  - temperature
  - humidity
  - combustibles, oxygen, enriched or reduced
  - electricity
  - stored pressure/energy
- ensure correct preparation of worksite is undertaken, including one or more of:
  - mechanical, electrical and other energy sources, and process isolations
  - de-energising all sources of energy/pressure
  - purging of plant
  - ventilation of plant
  - lockout/tag out procedures
  - blinding/blanking lines
  - other hazard controls
- ensure supervision/monitoring of people working under the permit
- speak clearly and unambiguously in the language of the worksite.

## Knowledge Evidence

Evidence must be provided that demonstrates knowledge of:

- the organisation's work control system
- types of permits and their application
- hazards of the area for which permit is being issued

- hazards that may be created by the interactions of the permit, the job, the process and the plant area
- focus of operation of work systems and equipment.

## Assessment Conditions

- Competency must be achieved before performing this work unsupervised. Therefore this unit will typically be assessed off the job. Where assessment is undertaken on the job appropriate supervision and safety precautions must be provided.
- The unit should be assessed holistically and the judgement of competence based on a holistic assessment of the evidence.
- The collection of performance evidence:
  - should provide evidence of the ability to perform over the range of situations which might be expected to be encountered, including typical disruptions to normal, smooth work conditions
    - will require the issuing of example permits for realistic case study situations
    - may use industry-based simulation particularly where safety, lack of opportunity or significant cost is an issue.
- Off-the-job assessment must sufficiently reflect realistic operational workplace conditions that cover all aspects of workplace performance, including environment, task skills, task management skills, contingency management skills and job role environment skills.
- Assessment in a simulated environment should use evidence collected from one or more of:
  - walk-throughs
  - demonstration of skills
  - industry based case studies/scenarios
  - ‘what ifs’.
- Knowledge evidence may be collected concurrently with performance evidence (provided a record is kept) or through an independent process, such as workbooks, written assessments or interviews (provided a record is kept).
- Assessment processes and techniques must be appropriate to the language, literacy and numeracy requirements of the work being performed and the needs of the candidate.
- Conditions for assessment must include access to all tools, equipment, materials and documentation required, including relevant workplace procedures, product and manufacturing specifications associated with this unit.
- The regulatory framework will be reflected in workplace policies and procedures and is not required to be independently assessed.
- Foundation skills are integral to competent performance of the unit and should not be assessed separately.
- As a minimum, assessors must satisfy the Standards for Registered Training Organisations 2015 assessor requirements.

## Links

Companion Volume implementation guides are found in VETNet -

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# MSMPMC400 Carry out stock control

## Modification History

Release 1. New unit. Supersedes and is equivalent to PMC563081 Carry out stock control

## Application

This unit describes the skills and knowledge required to carry out stock control. It applies to stock held in a store, warehouse or locally in the plant.

This unit applies to experienced operators, leading hands, supervisors or those in similar roles who are required to monitor stock levels, reconcile stock with inventory data and liaise with suppliers. Operators use a broad range of specialised knowledge and skills to interpret and provide information; identify and resolve problems and communicate technical solutions and advice.

This unit applies to an individual working alone or as part of a team or group and in liaison with other shift team members, team leader and supervisor.

No licensing or certification requirements exist at the time of publication. Relevant legislation, industry standards and codes of practice within Australia must be applied.

## Pre-requisite Unit

Nil

## Competency Field

Support

## Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Monitor stock reordering	1.1 Monitor stock levels and maintain them at optimum levels 1.2 Adjust stock reorder levels in response to customer demand

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	1.3 Receive stock and report quality and quantity variations of delivered goods to suppliers 1.4 Identify and use alternative suppliers which meet required quality and safety standards when required 1.5 Reorder stock in compliance with procedures
2. Maintain inventory records systems	2.1 Maintain accurate records of the storage and the movement of stock 2.2 Identify, and act upon, stock discrepancies 2.3 Ensure minimum inconvenience to customers resulting from stock movements
3. Undertake stocktaking and cyclical counts	3.1 Coordinate stocktaking and cyclical counts 3.2 Reconcile inventory data with actual stock on hand 3.3 Report stock variations or shortages 3.4 Identify missing or damaged stock and report
4. Respond to problems	4.1 Identify possible problems in stock levels, storage, quantity and quality of stock, timeliness of supplies and production issues 4.2 Rectify problems using appropriate solution within area of responsibility 4.3 Report problems outside area of responsibility to designated person
5. Control hazards	5.1 Identify stock control hazards 5.2 Assess the risks arising from those hazards 5.3 Implement measures to control those risks

## Foundation Skills

This section describes those language, literacy, numeracy and employment skills that are essential to performance.

Foundation skills essential to performance are explicit in the performance criteria of this unit of competency.



## Unit Mapping Information

Release 1. New unit. Supersedes and is equivalent to PMC563081 Carry out stock control

## Links

Companion Volume Implementation Guides are available at VETNet -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=d1287d36-dff4-4e9f-ad2c-9d6270054027>

# Assessment Requirements for MSMPMC400 Carry out stock control

## Modification History

Release 1. New unit. Supersedes and is equivalent to PMC563081 Carry out stock control

## Performance Evidence

There must be evidence the candidate has completed the tasks outlined in the elements and performance criteria of this unit, and:

- carried out stock control for at least 1 store, warehouse or plant, including monitoring the following key variables:
  - production requirements
  - stock levels
  - reorder levels
  - quantity and quality of deliveries
  - supplier contracts
  - stock condition
- identified discrepancies in stock quantities and/or quality.
- 

## Knowledge Evidence

There must be evidence the candidate has knowledge of:

- methods of monitoring production requirements and stock availability
- effective inventory management techniques to meet production requirements
- supplier contractual requirements
- stock control, stocktaking and cycle counting techniques
- optimum stock levels and relationship with cost
- methods of identifying and rectifying variations to quality and quantity of delivered goods
- methods and criteria for sourcing alternative suppliers
- routine and non-routine problems that may arise, the range of possible causes and appropriate actions
- stock control hazards and:
  - their possible causes
  - potential consequences
  - risk control procedures.
-

## Assessment Conditions

Skills must have been demonstrated in the workplace or in a simulated environment that reflects workplace conditions and contingencies, as well as, using suitable facilities, equipment and resources.

Assessors must satisfy the NVR/AQTF mandatory competency requirements for assessors.

## Links

Companion Volume Implementation Guides are available at VETNet -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=d1287d36-dff4-4e9f-ad2c-9d6270054027>

## **MSMSUP303 Identify equipment faults**

### **Modification History**

Release 1. Supersedes and is equivalent to MSAPMSUP303A Identify equipment faults

### **Application**

This unit of competency covers the skills and knowledge required to plan and carry out checks to identify and deal with equipment faults and to determine solutions.

This unit of competency applies to experienced personnel, such as experienced operators, team leaders or supervisors, who are required to apply knowledge of materials, product purpose and processes to identify and deal with routine and non-routine faults in equipment, propose solutions, carry out solutions within scope of authority and competence and complete logs and reports.

This unit of competency applies to an individual working alone or as part of a team or group and working in liaison with other shift team members and the control room operator, as appropriate.

This unit of competency applies to all work environments and sectors within the industry. It does not include maintenance that would require trade-level skills. It is not intended that this competency would cover maintenance that is carried out in a workshop.

No licensing, legislative or certification requirements apply to this unit at the time of publication.

### **Pre-requisite Unit**

Nil

### **Competency Field**

Support

## Unit Sector

### Elements and Performance Criteria

Elements describe the essential outcomes

Performance criteria describe the performance needed to demonstrate achievement of the element

1	Identify scope of operational check	1.1	Identify and classify equipment components and operating systems
		1.2	Match appropriate checks and procedures to the equipment operating systems
		1.3	Identify special checking procedures and parameters in manufacturer specifications and procedures
		1.4	Identify sources of information and data relevant to key variables
		1.5	Identify and control hazards
		1.6	Observe and undertake checks on the physical condition of equipment in accordance with procedures
		1.7	Record preliminary observations
		1.8	Discuss checking procedures with appropriate personnel and obtain necessary permission where required
2	Plan operational checks	2.1	Check specifications and notes from preliminary observations and identify areas to be clarified
		2.2	Plan sequence for checks, noting areas where results and observations should be recorded
		2.3	Ensure area is safe for operational check
		2.4	Make arrangements for any additional resources, including other employees
3	Check unit through full	3.1	Undertake operational checks observing relevant safety and operational requirements

	operational range	3.2	Confirm results and findings
		3.3	Identify faults to be dealt with
4	Identify faults and formulate recommendations	4.1	Identify impact of faults on work schedule
		4.2	Record proposals for equipment repair based on faults found, cost/time implications and workplace approval systems
		4.3	Explain proposals to relevant workplace personnel, including any options and recommendations
		4.4	Take appropriate action to return equipment to full operation in accordance with procedures

## Foundation Skills

This section describes those language, literacy, numeracy and employment skills that are essential to performance.

Foundation skills essential to performance are explicit in the performance criteria of this unit of competency.

## Range of Conditions

This field allows for different work environments and conditions that may affect performance. Essential operating conditions that may be present (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) are included.

### Regulatory framework

The latest version of all legislation, regulations, industry codes of practice and Australian/international standards, or the version specified by the local regulatory authority, must be used, and include one or more of the following:

- legislative requirements, including work health and safety (WHS)
- industry codes of practice and guidelines
- environmental regulations and guidelines
- Australian and other standards
- licence and certification requirements

**Procedures** All operations must be performed in accordance with relevant procedures.

Procedures are written, verbal, visual, computer-based or in some other form, and include one or more of the following:

- emergency procedures
- work instructions
- standard operating procedures (SOPs)
- safe work method statements (SWMS)
- formulas/recipes
- batch sheets
- temporary instructions
- plant description manuals
- manufacturer instructions and specifications
- service manuals
- machine circuit diagrams for hydraulic/pneumatic and electrical/electronic circuits
- any similar instructions provided for the smooth running of the plant

**Tools and equipment** Tools and equipment include one or more of the following:

- hand tools specific for the task
- product testing equipment (e.g. flowmeter, scales, tape measure, micrometer, calliper and ultrasonic thickness)
- equipment checking equipment (e.g. vibration meter, tachometer, current tester, thermal imaging and temperature gauge)

**Hazards** Hazards include one or more of the following:

- rotating and moving machinery
- process materials, solids, fluids and gases under pressure or flowing
- temporary connections or by-passes
- electrical, hydraulic or pneumatic energy sources
- out-of-specification operation
- smoke, darkness and heat
- heat, smoke, dust or other atmospheric hazards
- electricity
- gas
- gases and liquids under pressure
- structural hazards
- structural collapse
- equipment failures

- industrial (machinery, equipment and product)
- equipment or product mass
- noise, rotational equipment or vibration
- limited head spaces or overhangs
- working at heights, in restricted or confined spaces, or in environments subjected to heat, noise, dusts or vapours
- fire and explosion
- flammability and explosivity
- hazardous products and materials
- unauthorised personnel
- sharp edges, protrusions or obstructions
- slippery surfaces, spills or leaks
- extreme weather
- other hazards that might arise

## Faults

Faults may arise from routine and non-routine causes and must be resolved by applying operational knowledge to apply existing, or develop new solutions, either individually or in collaboration with relevant experts to:

- determine faults needing action
- determine possible fault causes
- develop solutions to faults which do not have a known solution
- follow through items initiated until final resolution has occurred
- report faults outside area of responsibility/expertise to designated person

Non-routine faults are unexpected faults, or variations of previous faults and are associated with one or more of the following:

- out-of-specification product or variations
- response of equipment to materials variations
- new or changed materials
- changed equipment settings (e.g. higher speed or throughput)
- equipment breakdown or in need of maintenance

Operational knowledge includes one or more of the following:

- procedures
- training
- technical information such as journals, engineering specifications
- remembered experience
- relevant knowledge obtained from appropriate people



<b>Variables</b>	Key variables to be monitored include one or more of the following: <ul style="list-style-type: none"><li>• equipment performance (e.g. speed, output and variations)</li><li>• equipment component performance</li><li>• sequences and timing of operations</li><li>• materials changes (desired and not desired)</li></ul>
<b>Sources of information and data</b>	Sources of information and data include one or more of the following: <ul style="list-style-type: none"><li>• plant data</li><li>• log sheets</li><li>• operational and performance reports</li><li>• physical aspects, such as noise, smell, feel and pressure condition monitoring information</li><li>• planned maintenance schedules</li><li>• procedures</li></ul>

## Unit Mapping Information

Release 1. Supersedes and is equivalent to MSAPMSUP303A Identify equipment faults

## Links

Companion Volume implementation guides are found in VETNet -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=d1287d36-dff4-4e9f-ad2c-9d6270054027>

# Assessment Requirements for MSMSUP303 Identify equipment faults

## Modification History

Release 1. Supersedes and is equivalent to MSAPMSUP303A Identify equipment faults

## Performance Evidence

Evidence required to demonstrate competence in this unit must be relevant to and satisfy the requirements of the elements and performance criteria and must include the ability to:

- check and identify a fault within an item of equipment/plant
- ensure workplace is safe for checking and maintenance of equipment
- communicate effectively with personnel and all levels
- evaluate the impact of fault in terms of work schedule, cost/time and approvals needed and make recommendations for repairs
- apply operational knowledge to non-routine problems
- take appropriate action within scope of authority in accordance with procedures.

## Knowledge Evidence

Evidence must be provided that demonstrates knowledge of:

- organisation procedures, including:
  - work permit systems
  - safety, emergency and hazard control
  - standard operating procedures (SOPs)
- hazards that may arise in the job/work environment, including:
- their possible causes
- potential consequences
- appropriate risk controls/ hierarchy of control
- principles of the operation of the equipment to be maintained:
  - operating principles for mechanical, hydraulic, pneumatic and electrical/electronic systems
  - functions and troubleshooting of internal components and their problems
  - routine and non-routine causes of equipment failures and the service conditions which may increase maintenance
- types and application of testing procedures and equipment.

## Assessment Conditions

- The unit should be assessed holistically and the judgement of competence based on a holistic assessment of the evidence.

- The collection of performance evidence:
  - should occur over a range of situations which include typical disruptions to normal, smooth operations
  - will typically include a supervisor/third-party report focusing on consistent performance and problem recognition and solving. A supervisor/third-party report must be prepared by someone who has a direct, relevant, current relationship with the person being assessed and who is in a position to form a judgement on workplace performance relevant to the unit of competency
  - must include the use of appropriate tools, equipment and safety gear requiring demonstration of preparation, operation, completion and responding to problems
  - may use industry-based simulation for all or part of the unit particularly where safety, lack of opportunity or significant cost is an issue.
- Assessment should occur in operational workplace situations. Where this is not possible, or where personal safety or environmental damage are limiting factors, assessment must occur in a sufficiently rigorous simulated environment reflecting realistic operational workplace conditions. This must cover all aspects of workplace performance, including environment, task skills, task management skills, contingency management skills and job role environment skills.
- Assessment in a simulated environment should use evidence collected from one or more of:
  - walk-throughs
  - pilot plant operation
  - demonstration of skills
  - industry-based case studies/scenarios
  - ‘what ifs’.
- Knowledge evidence may be collected concurrently with performance evidence (provided a record is kept) or through an independent process, such as workbooks, written assessments or interviews (provided a record is kept).
- Assessment processes and techniques must be appropriate to the language, literacy and numeracy requirements of the work being performed and the needs of the candidate.
- Conditions for assessment must include access to all tools, equipment, materials and documentation required, including relevant workplace procedures, product and manufacturing specifications associated with this unit.
- The regulatory framework will be reflected in workplace policies and procedures and is not required to be independently assessed.
- Foundation skills are integral to competent performance of the unit and should not be assessed separately.
- As a minimum, assessors must satisfy the Standards for Registered Training Organisations 2015 assessor requirements.

## Links

Companion Volume implementation guides are found in VETNet -

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# **MSMSUP310 Contribute to the development of workplace documentation**

## **Modification History**

Release 1. Supersedes and is equivalent to MSAPMSUP310A Contribute to the development of plant documentation

## **Application**

This unit of competency covers the skills and knowledge required to develop workplace documentation in response to identified information requirements. Develop covers 'develop from scratch' or 'take existing and improve'.

This unit of competency applies to experienced operators, leading hands, supervisors and similar personnel who are required to determine what needs to be done, develop the existing or new workplace documentation and apply document control.

This unit of competency applies to an individual working alone or as part of a team or group and working in liaison with other team members as appropriate.

This unit of competency applies to all work environments and sectors within the industry.

Work is governed by established workplace procedures, and extent of authority for drafting/document approval.

No licensing, legislative or certification requirements apply to this unit at the time of publication.

## **Pre-requisite Unit**

Nil

## **Competency Field**

Support

## Unit Sector

### Elements and Performance Criteria

Elements describe the essential outcomes

Performance criteria describe the performance needed to demonstrate achievement of the element

1	Identify information need/deficiency	1.1	Determine the information needs of the organisation
		1.2	Evaluate current documentation
		1.3	Recognise information need/deficiency
		1.4	Discuss information needs with appropriate personnel
		1.5	Identify purpose of, and target audience for, documentation
2	Develop workplace documentation	2.1	Specify information need and set/prioritise objectives
		2.2	Analyse existing documentation/records for compliance with identified needs
		2.3	Develop draft documentation in required format
		2.4	Issue draft documentation to appropriate personnel for review
		2.5	Edit documentation and amend in accordance with review feedback
		2.6	Complete documentation to satisfy the initial identified need/deficiency
		2.7	Check document complies with required template and document control procedures
3	Communicate changes to workplace documentation	3.1	Explain need for revised/new documentation to all relevant personnel
		3.2	Distribute documentation to all appropriate personnel
		3.3	Evaluate effectiveness of documentation.

### 3.4 Amend documentation if required

## Foundation Skills

This section describes those language, literacy, numeracy and employment skills that are essential to performance.

Foundation skills essential to performance are explicit in the performance criteria of this unit of competency.

## Range of Conditions

This field allows for different work environments and conditions that may affect performance. Essential operating conditions that may be present (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) are included.

### **Regulatory framework**

The latest version of all legislation, regulations, industry codes of practice and Australian/international standards, or the version specified by the local regulatory authority, must be used, and include one or more of the following:

- legislative requirements, including work health and safety (WHS)
- industry codes of practice and guidelines
- environmental regulations and guidelines
- Australian and other standards
- licence and certification requirements

### **Procedures**

All operations must be performed in accordance with relevant procedures.

Procedures are written, verbal, visual, computer-based or in some other form, and include one or more of the following:

- document control procedures and style sheets
- emergency procedures
- work instructions
- standard operating procedures (SOPs)
- safe work method statements (SWMS)
- formulas/recipes
- batch sheets
- temporary instructions
- any similar instructions provided for the smooth running of the plant

**Documentation** Documentation includes one or more of the following:

- maintenance logs
- non-compliance reports
- incidence and accident reports
- permits
- schematics/process flows/engineering drawings
- job cards
- SOPs
- work instructions
- operating manuals
- quality procedures
- training program contents
- material safety data sheets (MSDS)

## Unit Mapping Information

Release 1. Supersedes and is equivalent to MSAPMSUP310A Contribute to the development of plant documentation

## Links

Companion Volume implementation guides are found in VETNet -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=d1287d36-dff4-4e9f-ad2c-9d6270054027>



# **Assessment Requirements for MSMSUP310 Contribute to the development of workplace documentation**

## **Modification History**

Release 1. Supersedes and is equivalent to MSAPMSUP310A Contribute to the development of plant documentation

## **Performance Evidence**

Evidence required to demonstrate competence in this unit must be relevant to and satisfy the requirements of the elements and performance criteria and demonstrate the ability to:

- communicate with other personnel to:
  - determine the need for and purpose of documentation development and/or amendment
  - identify specifications and format to be used
  - identify target audience
  - communicate and evaluate changes to documentation
- identify and evaluate current documentation
- convey information clearly and concisely in writing using language and structure suitable for the purpose and target audience
- apply procedures for drafting, review and revision of documentation
- apply document control.

## **Knowledge Evidence**

Evidence must be provided that demonstrates knowledge of:

- organisational procedures, including those covering:
  - data systems and data security
  - record keeping
  - privacy
  - intellectual property (IP)
  - document control and approvals
  - style guides and standards for documentation
  - use of internet
  - relevant standard operating procedures (SOPs)
- writing styles, including:
  - plain or technical English
  - short/simple sentences, or well developed arguments
  - dot points or use of paragraphs
  - appropriate inclusion of graphics

- sections and headings or other navigational tools
- logical sequencing of information
- distinguishing between relevant and peripheral issues
- planning, drafting and editing own work.

## Assessment Conditions

- The unit should be assessed holistically and the judgement of competence based on a holistic assessment of the evidence.
- The collection of performance evidence is best done from a report and/or folio of evidence drawn from work activities, which together provide sufficient evidence of the requirements of all the elements and performance criteria.
- A third-party report, or similar, may be needed to testify to the work done by the individual, particularly when the project has been done as part of a project team.
- Assessment should occur in operational workplace situations. Where this is not possible or practical assessment must occur in a sufficiently rigorous simulated environment reflecting realistic operational workplace conditions. This must cover all aspects of workplace performance, including environment, task skills, task management skills, contingency management skills and job role environment skills.
- Assessment may use industry-based simulation for all or part of the unit where the use of real experience is not practicable.
- Assessment in a simulated environment should use evidence collected from one or more of:
  - demonstration of skills
  - industry-based case studies/scenarios
  - ‘what ifs’.
- Knowledge evidence may be collected concurrently with performance evidence (provided a record is kept) or through an independent process, such as workbooks, written assessments or interviews (provided a record is kept).
- Assessment processes and techniques must be appropriate to the language, literacy and numeracy requirements of the work being performed and the needs of the candidate.
- Conditions for assessment must include access to all tools, equipment, materials and documentation required, including relevant workplace procedures, product and manufacturing specifications associated with this unit.
- The regulatory framework will be reflected in workplace policies and procedures and is not required to be independently assessed.
- Foundation skills are integral to competent performance of the unit and should not be assessed separately.
- As a minimum, assessors must satisfy the Standards for Registered Training Organisations 2015 assessor requirements.

## Links

Companion Volume implementation guides are found in VETNet -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=d1287d36-dff4-4e9f-ad2c-9d6270054027>



# **MSMSUP330 Develop and adjust a production schedule**

## **Modification History**

Release 1. Supersedes and is equivalent to MSAPMSUP330A Develop and adjust a production schedule

## **Application**

This unit of competency covers the skills and knowledge required to plan, schedule and prioritise production to meet operational requirements.

This unit of competency applies to experienced operators, team leaders or similar who are required to optimise plant production and costs of production using daily and weekly run plan guidelines/production schedules.

The person will have detailed operational and process knowledge but is not required to demonstrate 'hands on' operation of equipment as part of this competency.

This unit of competency applies to an individual working alone or as part of a team or group and working in liaison with other shift team members and the control room operator, as appropriate.

This unit of competency applies to all work environments and sectors within the industry.

No licensing, legislative or certification requirements apply to this unit at the time of publication.

## **Pre-requisite Unit**

Nil

## **Competency Field**

Support

## Unit Sector

### Elements and Performance Criteria

Elements describe the essential outcomes

Performance criteria describe the performance needed to demonstrate achievement of the element

1	Identify resources to meet production requirements	1.1	Determine demand for product
		1.2	Access and verify information on orders, stocks and delivery
		1.3	Determine plant/production equipment capacity
		1.4	Determine material requirements
		1.5	Determine human resource requirements
		1.6	Identify and control hazards
2	Develop schedules	2.1	Determine production priorities
		2.2	Identify production opportunities ('windows')
		2.3	Develop production schedules in accordance with procedures taking account of health, safety and environment (HSE) requirements
		2.4	Communicate and distribute production schedules to appropriate personnel
3	Monitor production schedules	3.1	Monitor production output against schedule
		3.2	Identify variations between production and schedule
		3.3	Record operational variation and discuss with appropriate personnel
		3.4	Identify possible cause of variation
4	Adjust schedules	4.1	Adjust schedules in response to operational variation

- 4.2 Adjust schedules in response to unexpected events
- 4.3 Distribute adjusted/amended schedules to appropriate personnel
- 4.4 Maintain product output in accordance with production and HSE requirements

## Foundation Skills

This section describes those language, literacy, numeracy and employment skills that are essential to performance.

Foundation skills essential to performance are explicit in the performance criteria of this unit of competency.

## Range of Conditions

This field allows for different work environments and conditions that may affect performance. Essential operating conditions that may be present (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) are included.

**Regulatory framework** The latest version of all legislation, regulations, industry codes of practice and Australian/international standards, or the version specified by the local regulatory authority, must be used, and include one or more of the following:

- legislative requirements, including work health and safety (WHS)
- industry codes of practice and guidelines
- environmental regulations and guidelines
- Australian and other standards
- licence and certification requirements

All operations are subject to stringent HSE requirements, which may be imposed through state/territory or federal legislation, and these must not be compromised at any time. Where there is an apparent conflict between performance criteria and HSE requirements, the HSE requirements take precedence.

**Procedures** All operations must be performed in accordance with relevant procedures.

Procedures are written, verbal, visual, computer-based or in some other form,

and include one or more of the following:

- emergency procedures
- work instructions
- standard operating procedures (SOPs)
- safe work method statements (SWMS)
- formulas/recipes
- batch sheets
- temporary instructions
- any similar instructions provided for the smooth running of the plant

## **Hazards**

Hazards include one or more of the following:

- smoke, darkness and heat
- heat, smoke, dust or other atmospheric hazards
- electricity
- gas
- gases and liquids under pressure
- structural hazards
- structural collapse
- equipment failures
- industrial (machinery, equipment and product)
- equipment or product mass
- noise, rotational equipment or vibration
- limited head spaces or overhangs
- working at heights, in restricted or confined spaces, or in environments subjected to heat, noise, dusts or vapours
- fire and explosion
- flammability and explosivity
- hazardous products and materials
- unauthorised personnel
- sharp edges, protrusions or obstructions
- slippery surfaces, spills or leaks
- extreme weather
- other hazards that might arise

## **Unit Mapping Information**

Release 1. Supersedes and is equivalent to MSAPMSUP330A Develop and adjust a production schedule

## Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=d1287d36-dff4-4e9f-ad2c-9d6270054027>



# **Assessment Requirements for MSMSUP330 Develop and adjust a production schedule**

## **Modification History**

Release 1. Supersedes and is equivalent to MSAPMSUP330A Develop and adjust a production schedule

## **Performance Evidence**

Evidence required to demonstrate competence in this unit must be relevant to and satisfy the requirements of the elements and performance criteria and must include the ability to:

- identify production objectives, priorities, targets and resource requirements
- plan, sequence and schedule production taking account of health, safety and environment (HSE) priorities
- monitor and adjust schedules in response to operational variations
- communicate effectively with other personnel.

## **Knowledge Evidence**

Evidence must be provided that demonstrates knowledge of:

- organisation procedures
- hazards that may arise in the job/work environment, including:
  - their possible causes
  - potential consequences
  - appropriate risk controls
  - hierarchy of control
- customer and quality requirements
- routine and non-routine causes of production variation
- relevant equipment and operational processes
- types of adjustments that can be made and their likely impact on process/plant efficiencies and production outcomes/targets.

## **Assessment Conditions**

- The unit should be assessed holistically and the judgement of competence based on a holistic assessment of the evidence.
- The collection of performance evidence:
  - should occur over a range of situations which include typical disruptions to normal, smooth operations

- will typically include a supervisor/third-party report focusing on consistent performance and problem recognition and solving. A supervisor/third-party report must be prepared by someone who has a direct, relevant, current relationship with the person being assessed and who is in a position to form a judgement on workplace performance relevant to the unit of competency
- must include the use of appropriate tools, equipment and safety gear requiring demonstration of preparation, operation, completion and responding to problems
- may use industry-based simulation for all or part of the unit particularly where safety, lack of opportunity or significant cost is an issue.
- Assessment should occur in operational workplace situations. Where this is not possible, or where personal safety or environmental damage are limiting factors, assessment must occur in a sufficiently rigorous simulated environment reflecting realistic operational workplace conditions. This must cover all aspects of workplace performance, including environment, task skills, task management skills, contingency management skills and job role environment skills.
- Assessment in a simulated environment should use evidence collected from one or more of:
  - walk-throughs
  - pilot plant operation
  - demonstration of skills
  - industry-based case studies/scenarios
  - ‘what ifs’.
- Knowledge evidence may be collected concurrently with performance evidence (provided a record is kept) or through an independent process, such as workbooks, written assessments or interviews (provided a record is kept).
- Assessment processes and techniques must be appropriate to the language, literacy and numeracy requirements of the work being performed and the needs of the candidate.
- Conditions for assessment must include access to all tools, equipment, materials and documentation required, including relevant workplace procedures, product and manufacturing specifications associated with this unit.
- The regulatory framework will be reflected in workplace policies and procedures and is not required to be independently assessed.
- Foundation skills are integral to competent performance of the unit and should not be assessed separately.
- As a minimum, assessors must satisfy the Standards for Registered Training Organisations 2015 assessor requirements.

## Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=d1287d36-dff4-4e9f-ad2c-9d6270054027>

## MSMSUP390 Use structured problem-solving tools

### Modification History

Release 1. Supersedes and is equivalent to MSAPMSUP390A Use structured problem solving tools

### Application

This unit of competency covers the skills and knowledge required to use structured process improvement tools to solve process and other problems.

This unit of competency applies to experienced operators, team leaders, supervisors or people in similar roles who are required to identify improvements and/or solve problems beyond those associated directly with the process unit/equipment.

A ‘problem’ in this context should be interpreted as ‘an opportunity for improvement’, not just something causing faulty product, product faults or process irregularities/breakdowns.

This unit of competency applies to an individual working alone or as part of a team or group and working in liaison with other shift team members and the control room operator, as appropriate.

Problem-solving techniques are often applied as group processes. Where the competency is achieved in a group context the individual being assessed must meet all aspects of the competency.

This competency does NOT cover the planning and facilitation of group problem-solving activities.

Other units of competency, including MSMOPS units, may include a problem-solving element where problems specific to that competency are to be resolved. However, this unit of competency requires structured problem-solving techniques to be applied more broadly and/or with greater depth and rigour than is implied by the problem-solving element of the other units.

This unit of competency applies to all work environments and sectors within the industry.

No licensing, legislative or certification requirements apply to this unit at the time of publication.

## Pre-requisite Unit

Nil

## Competency Field

Support

## Unit Sector

## Elements and Performance Criteria

Elements describe the essential outcomes

Performance criteria describe the performance needed to demonstrate achievement of the element

1	<b>Identify the problem</b>	1.1	Identify variances from desired operating/output parameters and quality
		1.2	Define the extent, cause and nature of the problem by observation and investigation
		1.3	State and specify the problem clearly
2	<b>Determine fundamental cause of problem</b>	2.1	Select problem-solving tool appropriate to the problem and the context
		2.2	Identify possible causes based on experience and the use of problem-solving tools/analytical techniques
		2.3	Develop possible cause statements
		2.4	Determine fundamental cause
3	<b>Determine corrective action</b>	3.1	Consider all possible options for resolution of the problem
		3.2	Consider strengths and weaknesses of possible options

- |   |                                    |     |   |
|---|------------------------------------|-----|---|
|   |                                    | 3.3 | Determine corrective action to remove the problem and possible future causes  |
|   |                                    | 3.4 | Develop implementation plans identifying measurable objectives, resource needs and timelines in accordance with safety and operating procedures |
|   |                                    | 3.5 | Develop recommendations for ongoing monitoring and testing  |
| 4 | <b>Communicate recommendations</b> | 4.1 | Prepare report on recommendations   |
|   |                                    | 4.2 | Present recommendations to appropriate personnel  |
|   |                                    | 4.3 | Follow up recommendations if required   |

## Foundation Skills

This section describes those language, literacy, numeracy and employment skills that are essential to performance.

Foundation skills essential to performance are explicit in the performance criteria of this unit of competency.

## Range of Conditions

This field allows for different work environments and conditions that may affect performance. Essential operating conditions that may be present (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) are included.

### Regulatory framework

The latest version of all legislation, regulations, industry codes of practice and Australian/international standards, or the version specified by the local regulatory authority, must be used, and include one or more of the following:

- legislative requirements, including work health and safety (WHS)
- industry codes of practice and guidelines
- environmental regulations and guidelines
- Australian and other standards
- licence and certification requirements

**Procedures**

All operations must be performed in accordance with relevant procedures.

Procedures are written, verbal, visual, computer-based or in some other form, and include one or more of the following:

- emergency procedures
- work instructions
- standard operating procedures (SOPs)
- safe work method statements (SWMS)
- formulas/recipes
- batch sheets
- temporary instructions
- any similar instructions provided for the smooth running of the plant

**Problem-solving tools/ analytical techniques**

Problem-solving tools/analytical techniques include one or more of:

- basic techniques:
  - 5 why's
  - brainstorming
  - 6 hats (Edward de Bono)
  - similarity/difference analysis
- visual techniques:
  - Ishikawa/fishbone diagrams
  - logic tree
  - histograms/Pareto analysis
  - scattergrams
- process-based tools:
  - flow charts
  - process logic/process requirements
  - cause and effect diagrams/charts
  - divide and conquer
  - control charts and run charts (Shewhart charts)
- business/interpersonal techniques:
  - force field analysis
  - strengths, weaknesses, opportunities, threats (SWOT) analysis
  - plan, do, check, act (PDCA)/define, measure, analyse, improve, control (DMAIC)
- other structured processes defined in organisation procedures, (e.g. TapRoot)

<b>Corrective actions</b>	<p>Corrective actions will include one or more of the following:</p> <ul style="list-style-type: none"><li>• consideration of at least two alternative solutions</li><li>• benefit-cost analysis (at least semi-quantitative, need not be in \$ terms)</li><li>• health, safety and environment (HSE) impacts and controls</li><li>• risk assessment (HSE, business and project)</li><li>• determination of the preferred solution or a priority ranked shortlist</li></ul>
<b>Implementation plans</b>	<p>Implementation plans to solve problems will include:</p> <ul style="list-style-type: none"><li>• specific, measurable, achievable, relevant, timed (SMART) objectives</li><li>• resource requirements (people, finances, plant/equipment, materials/consumables, time, skills and knowledge)</li><li>• methods for reaching objectives</li><li>• timelines</li><li>• methods of checking and adjusting adherence to plan (e.g. communication and follow-up)</li></ul>
<b>Problems</b>	<p>A ‘problem’ in this context should be interpreted as ‘an opportunity for improvement’, not just something causing faulty product, product faults or process irregularities/breakdowns and will include one or more of the following:</p> <ul style="list-style-type: none"><li>• intractable process difficulty</li><li>• observed process waste/inefficiency (‘Muda’)</li><li>• issue with materials/components</li><li>• procedures/practices/process conditions which might be improved</li></ul>

## Unit Mapping Information

Release 1. Supersedes and is equivalent to MSAPMSUP390A Use structured problem solving tools

## Links

Companion Volume implementation guides are found in VETNet -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=d1287d36-dff4-4e9f-ad2c-9d6270054027>





# **Assessment Requirements for MSMSUP390 Use structured problem-solving tools**

## **Modification History**

Release 1. Supersedes and is equivalent to MSAPMSUP390A Use structured problem solving tools

## **Performance Evidence**

Evidence required to demonstrate competence in this unit must be relevant to and satisfy the requirements of the elements and performance criteria and demonstrate the ability to:

- identify at least one (1) problem
- analyse problem using at least one (1) analysis tool drawn from each of two (2) different groups of tools (basic, visual, process, business and organisation specific)
- select the preferred solution
- develop and use an implementation plan
- communicate effectively with other personnel.

## **Knowledge Evidence**

Evidence must be provided that demonstrates knowledge of:

- relevant organisation procedures
- risks, risk assessment and controls relevant to problem being analysed
- targets and measures for output and quality
- types and application of problem-solving tools/analytical techniques
- relevant equipment and operational processes.

## **Assessment Conditions**

- The unit should be assessed holistically and the judgement of competence based on a holistic assessment of the evidence.
- The collection of performance evidence:
  - should occur over a range of situations which include typical disruptions to normal, smooth operations
  - will typically include a supervisor/third-party report focusing on the significance of the problem being addressed. A supervisor/third-party report must be prepared by someone who has a direct, relevant, current relationship with the person being assessed and who is in a position to form a judgement on workplace performance relevant to the unit of competency
  - may use industry-based simulation for all or part of the unit particularly where safety, lack of opportunity or significant cost is an issue.

- Assessment should occur in operational workplace situations. Where this is not possible, or where personal safety or environmental damage are limiting factors, assessment must occur in a sufficiently rigorous simulated environment reflecting realistic operational workplace conditions. This must cover all aspects of workplace performance, including environment, task skills, task management skills, contingency management skills and job role environment skills.
- Assessment in a simulated environment should use evidence collected from one or more of:
  - demonstration of skills
  - industry-based case studies/scenarios
  - ‘what ifs’.
- Knowledge evidence may be collected concurrently with performance evidence (provided a record is kept) or through an independent process, such as workbooks, written assessments or interviews (provided a record is kept).
- Assessment processes and techniques must be appropriate to the language, literacy and numeracy requirements of the work being performed and the needs of the candidate.
- Conditions for assessment must include access to all tools, equipment, materials and documentation required, including relevant workplace procedures, product and manufacturing specifications associated with this unit.
- The regulatory framework will be reflected in workplace policies and procedures and is not required to be independently assessed.
- Foundation skills are integral to competent performance of the unit and should not be assessed separately.
- As a minimum, assessors must satisfy the Standards for Registered Training Organisations 2015 assessor requirements.

## Links

Companion Volume implementation guides are found in VETNet -

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## **MSMSUP405 Identify problems in fluid power system**

### **Modification History**

Release 1. Supersedes and is equivalent to MSAPMOPS405A Identify problems in fluid power system

### **Application**

This unit of competency covers the skills and knowledge required to recognise and diagnose problems in hydraulic/pneumatic control systems on process equipment, and take appropriate corrective action.

This unit of competency applies to operators who are required to apply knowledge of fluid power systems and components to the identification and isolation of faults in equipment. The key factors are the diagnosis and the recommendation of action to resolve routine and non-routine faults in order to return the equipment to production.

The unit applies to all work environments and sectors within the manufacturing industry. It requires an understanding of the operation of all relevant equipment and processes but does not necessarily require them to be used personally.

This unit of competency applies to an individual working alone or as part of a team or group and working in liaison with other shift team members and the control room operator, as appropriate.

No licensing, legislative or certification requirements apply to this unit at the time of publication.

### **Pre-requisite Unit**

Nil

### **Competency Field**

Support

## Unit Sector

### Elements and Performance Criteria

Elements describe the essential outcomes

Performance criteria describe the performance needed to demonstrate achievement of the element

1	Identify pneumatic/hydraulic system problems	1.1	Categorise the types of equipment malfunctions due to fluid power problems
		1.2	Identify the effects on product quality of fluid power problems
		1.3	Describe the function of components on the fluid power circuit diagram
		1.4	Identify possible faulty components from a circuit diagram
		1.5	Identify hazards arising from the problem and implement appropriate hazard control
2	Implement appropriate corrective action	2.1	Identify other possible problems
		2.2	Short list possible fault problems
		2.3	Investigation machine, products or data to determine most likely problem causes
		2.4	Take appropriate action to ensure problem is rectified
		2.5	Follow up on action to ensure completion in an appropriate timeframe
		2.6	Recheck after corrective action to ensure problem has been rectified
3	Develop maintenance requirements	3.1	Check manufacturer instructions to determine recommended maintenance schedule
		3.2	Check fault and maintenance history to determine adequacy of current regime and special requirements

- 3.3 Determine criticality of machine to production/business
- 3.4 Develop maintenance schedule/requirements for machine
- 3.5 Liaise with all relevant stakeholders to ensure schedule is appropriate
- 3.6 Report outcome to appropriate personnel

## Foundation Skills

This section describes those language, literacy, numeracy and employment skills that are essential to performance.

Foundation skills essential to performance are explicit in the performance criteria of this unit of competency.

## Range of Conditions

This field allows for different work environments and conditions that may affect performance. Essential operating conditions that may be present (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) are included.

### Regulatory framework

The latest version of all legislation, regulations, industry codes of practice and Australian/international standards, or the version specified by the local regulatory authority, must be used, and include one or more of the following:

- legislative requirements, including work health and safety (WHS)
- industry codes of practice and guidelines
- environmental regulations and guidelines
- Australian and other standards
- licence and certification requirements

### Procedures

All operations must be performed in accordance with relevant procedures.

Procedures are written, verbal, visual, computer-based or in some other form, and include one or more of the following:

- work instructions

- standard operating procedures (SOPs)
- safe work method statements (SWMS)
- formulas/recipes
- batch sheets
- temporary instructions
- any similar instructions provided for the smooth running of the plant

**Equipment using fluid power control systems**

Equipment that uses fluid power control systems include one or more of the following:

- pumps
- pressure controls
- directional control valves (DCVs)
- remote operated valves (ROVs)
- flow control actuators
- accumulators
- filters
- heat exchangers
- proportional, servo and cartridge valves

**Non-routine problems**

Non-routine problems must be resolved by applying operational knowledge to develop new solutions, either individually or in collaboration with relevant experts to:

- determine problems needing action
- determine possible fault causes
- develop solutions to problems which do not have a known solution
- follow through items initiated until final resolution has occurred
- report problems outside area of responsibility to designated person

Operational knowledge includes one or more of the following:

- procedures
- training
- technical information, such as journals and engineering specifications
- remembered experience
- relevant knowledge obtained from appropriate people

**Hazards**

Hazards include one or more of the following:

- high pressures (hydraulic and pneumatic)
- hot surfaces
- equipment failures
- heat, smoke, dust or other atmospheric hazards
- flammability and explosivity
- equipment or product mass
- slippery surfaces, spills or leaks
- noise, rotational equipment or vibration
- electricity
- other hazards that might arise

## Unit Mapping Information

Release 1. Supersedes and is equivalent to MSAPMOPS405A Identify problems in fluid power system

## Links

Companion Volume implementation guides are found in VETNet -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=d1287d36-dff4-4e9f-ad2c-9d6270054027>

# **Assessment Requirements for MSMSUP405 Identify problems in fluid power system**

## **Modification History**

Release 1. Supersedes and is equivalent to MSAPMOPS405A Identify problems in fluid power system

## **Performance Evidence**

Evidence required to demonstrate competence in this unit must be relevant to and satisfy all of the requirements of the elements and performance criteria and demonstrate the ability to:

- identify fluid power problem and possible problem causes
- take appropriate action in a timely manner
- apply operational knowledge to non-routine problems
- develop appropriate maintenance schedule/requirements.

## **Knowledge Evidence**

Evidence must be provided that demonstrates knowledge of:

- hazards and hazard controls specific to the fluid power system and the plant it is used on
- principles of hydraulics/pneumatics and circuit components
- fluid power circuit diagrams
- types and causes of known fluid power problems for the plant unit and its components
- corrective action appropriate to the problem cause
- appropriate investigation procedures and use of equipment for a range of equipment faults.

## **Assessment Conditions**

- The unit should be assessed holistically and the judgement of competence based on a holistic assessment of the evidence.
- The collection of performance evidence:
  - should occur over a range of situations which include typical disruptions to normal, smooth operation of an operating plant
  - will typically include a supervisor/third-party report focusing on consistent performance and problem recognition and solving. A supervisor/third-party report must be prepared by someone who has a direct, relevant, current relationship with the person being assessed and who is in a position to form a judgement on workplace performance relevant to the unit of competency
  - will typically include the use of an appropriate industrial item of equipment requiring demonstration of operation, start and stop procedures and responding to problems
  - may use industry-based simulation for all or part of the unit particularly where safety, lack of opportunity or significant cost is an issue.



- Assessment should occur in operational workplace situations. Where this is not possible, or where personal safety or environmental damage are limiting factors, assessment must occur in a sufficiently rigorous simulated environment reflecting realistic operational workplace conditions. This must cover all aspects of workplace performance, including environment, task skills, task management skills, contingency management skills and job role environment skills.
- Assessment in a simulated environment should use evidence collected from one or more of:
  - walk-throughs
  - pilot plant operation
  - demonstration of skills
  - industry-based case studies/scenarios
  - ‘what ifs’.
- Knowledge evidence may be collected concurrently with performance evidence (provided a record is kept) or through an independent process, such as workbooks, written assessments or interviews (provided a record is kept).
- Assessment processes and techniques must be appropriate to the language, literacy and numeracy requirements of the work being performed and the needs of the candidate.
- Conditions for assessment must include access to all tools, equipment, materials and documentation required, including relevant workplace procedures, product and manufacturing specifications associated with this unit.
- The regulatory framework will be reflected in workplace policies and procedures and is not required to be independently assessed.
- Foundation skills are integral to competent performance of the unit and should not be assessed separately.
- As a minimum, assessors must satisfy the Standards for Registered Training Organisations 2015 assessor requirements.

## Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=d1287d36-dff4-4e9f-ad2c-9d6270054027>

## **MSMSUP406 Identify faults in electronic control**

### **Modification History**

Release 1. Supersedes and is equivalent to MSAPMOPS406A Identify problems in electronic control

### **Application**

This unit of competency covers the skills and knowledge required to recognise and diagnose control system faults in electrical/electronic control systems on process equipment. It includes the implementation of appropriate corrective action.

This unit of competency applies to technicians. The technician will be required to apply knowledge of electronic control systems and components to the identification and isolation of faults in equipment. The key factors are the diagnosis and the recommendation of action to resolve routine and non-routine faults, in order to return the equipment to production.

The operator will have detailed operational and process knowledge but is not required to demonstrate 'hands on' operation of equipment as part of this competency.

This unit of competency applies to an individual working alone or as part of a team or group and working in liaison with other shift team members and the control room operator, as appropriate.

This unit of competency applies to all common equipment used in the manufacturing industry and should be able to be applied to all equipment using electrical/electronic control systems. It applies to all work environments and sectors within the manufacturing industry.

No licensing, legislative or certification requirements apply to this unit at the time of publication.

### **Pre-requisite Unit**

Nil

### **Competency Field**

Support

## Unit Sector

### Elements and Performance Criteria

Elements describe the essential outcomes

Performance criteria describe the performance needed to demonstrate achievement of the element

1	Identify electrical/electronic control system faults	1.1	Categorise the types of machine malfunctions due to electrical and/or electronic faults
		1.2	Describe the effects on product quality of electrical and/or electronic faults
		1.3	Identify possible faulty components from a circuit diagram and knowledge of the function of each component
2	Identify maintenance requirements	2.1	Determine recommended maintenance schedule from manufacturer instructions
		2.2	Determine adequacy of current maintenance regime and any special requirements from fault and maintenance history
		2.3	Determine criticality of machine to production and/or business
		2.4	Develop maintenance schedule and requirements for machine
		2.5	Liaise with all relevant stakeholders to ensure schedule is appropriate
		2.6	Report outcome to appropriate personnel
3	Determine appropriate corrective action	3.1	Examine other possible faults
		3.2	Short list possible fault causes
		3.3	Conduct investigations of machine, products or data to determine most likely fault causes
		3.4	Take appropriate action to ensure fault is rectified

- 3.5 Follow up on action to ensure completion in an appropriate timeframe
- 3.6 Recheck after corrective action to ensure fault has been rectified

## Foundation Skills

This section describes those language, literacy, numeracy and employment skills that are essential to performance.

Foundation skills essential to performance are explicit in the performance criteria of this unit of competency.

## Range of Conditions

This field allows for different work environments and conditions that may affect performance. Essential operating conditions that may be present (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) are included.

**Regulatory framework** The latest version of all legislation, regulations, industry codes of practice and Australian/international standards, or the version specified by the local regulatory authority, must be used, and include one or more of the following:

- legislative requirements, including work health and safety (WHS)
- industry codes of practice and guidelines
- environmental regulations and guidelines
- Australian and other standards
- licence and certification requirements

**Procedures** All operations must be performed in accordance with relevant procedures.

Procedures are written, verbal, visual, computer-based or in some other form, and include one or more of the following:

- emergency procedures
- work instructions
- standard operating procedures (SOPs)
- safe work method statements (SWMS)
- formulas/recipes
- batch sheets

- temporary instructions
- any similar instructions provided for the smooth running of the plant

**Tools and equipment**

Tools and equipment include one or more of the following:

- programmable logic controls (PLC) and ancillaries
- solid-state control/switching units
- switches, relays and solenoids
- position and pressure transducers
- temperature controllers

**Hazards**

Hazards include one or more of the following:

- electricity
- incorrect/failed connections
- insulation failure
- polarity of components
- gas
- equipment malfunction/failure
- industrial (machinery, equipment and product)
- noise, rotational equipment or vibration
- temperature from hot surfaces and equipment
- test equipment
- unauthorised personnel
- other hazards that might arise

**Faults**

Faults may arise from non-routine causes and must be resolved by applying operational knowledge to develop new solutions, either individually or in collaboration with relevant experts to:

- determine faults needing action
- determine possible fault causes
- develop solutions to problems which do not have a known solution
- follow through items initiated until final resolution has occurred
- report faults outside area of responsibility to designated person

Non-routine faults are unexpected faults, or variations of previous faults and include one or more of the following:

- loss of flow, power
- power failure
- component malfunction

- poor maintenance procedures
- regular maintenance
- shutdown
- motor failure effect on cycle time
- short shots
- loss of clamp pressure
- no power
- electronic/electrical faults
- analysis with PLC

Operational knowledge includes one or more of the following:

- procedures
- training
- technical information, such as journals and engineering specifications
- remembered experience
- relevant knowledge obtained from appropriate people

## Unit Mapping Information

Release 1. Supersedes and is equivalent to MSAPMOPS406A Identify problems in electronic control

## Links

Companion Volume implementation guides are found in VETNet -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=d1287d36-dff4-4e9f-ad2c-9d6270054027>

# Assessment Requirements for MSMSUP406 Identify faults in electronic control

## Modification History

Release 1. Supersedes and is equivalent to MSAPMOPS406A Identify problems in electronic control

## Performance Evidence

Evidence required to demonstrate competence in this unit must be relevant to and satisfy the requirements of the elements and performance criteria and must include the ability to:

- recognise and analyse control system faults
- identify and select testing methods based on cost and time effectiveness
- identify and develop maintenance requirements
- propose solutions and carry out solutions within scope of authority
- apply operational knowledge to non-routine problems
- identify and implement corrective actions
- monitor process and equipment conditions.

## Knowledge Evidence

Evidence must be provided that demonstrates knowledge of:

- fundamentals of electricity and electronics
- electronic circuit diagrams
- principles of electronic circuit components
- principles of PLC programming, troubleshooting and diagnosis
- appropriate testing procedures and use of equipment for a range of equipment faults
- interaction of process conditions on product quality
- routine and non-routine causes of equipment failures and processes to develop solutions.

## Assessment Conditions

- The unit should be assessed holistically and the judgement of competence based on a holistic assessment of the evidence.
- The collection of performance evidence:
  - should occur over a range of situations which include typical disruptions to normal, smooth operation of an operating plant

- will typically include a supervisor/third-party report or other evidence, focusing on consistent performance and problem recognition and solving. A supervisor/third-party report must be prepared by someone who has a direct, relevant, current relationship with the person being assessed and who is in a position to form a judgement on workplace performance relevant to the unit of competency
- may use industry-based simulation for part only of the unit where safety, lack of opportunity or significant cost is an issue.
- Assessment should occur in operational workplace situations. Where this is not possible, or where personal safety or environmental damage are limiting factors, assessment must occur in a sufficiently rigorous simulated environment reflecting realistic operational workplace conditions. This must cover all aspects of workplace performance, including environment, task skills, task management skills, contingency management skills and job role environment skills.
- Assessment in a simulated environment should use evidence collected from one or more of:
  - walk-throughs
  - pilot plant operation
  - demonstration of skills
  - industry-based case studies/scenarios
  - ‘what ifs’.
- Knowledge evidence may be collected concurrently with performance evidence (provided a record is kept) or through an independent process, such as workbooks, written assessments or interviews (provided a record is kept).
- Assessment processes and techniques must be appropriate to the language, literacy and numeracy requirements of the work being performed and the needs of the candidate.
- Conditions for assessment must include access to all tools, equipment, materials and documentation required, including relevant workplace procedures, product and manufacturing specifications associated with this unit.
- The regulatory framework will be reflected in workplace policies and procedures and is not required to be independently assessed.
- Foundation skills are integral to competent performance of the unit and should not be assessed separately.
- As a minimum, assessors must satisfy the Standards for Registered Training Organisations 2015 assessor requirements.

## Links

Companion Volume implementation guides are found in VETNet -

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# MSMWHS201 Conduct hazard analysis

## Modification History

Release 1 - New unit

## Application

This unit of competency covers the skills and knowledge required to conduct a hazard analysis. These are typically called:

- job safety analysis (JSA)
- job hazard analysis (JHA)
- job safety and environmental analysis (JSEA)
- safe work method statement (SWMS)

It is not intended to apply to simpler routine hazard checks, such as 'Take 5', Step Back 5x5', five step or similar.

This might be done as an independent activity in order to identify hazards and the appropriate hazard controls, or it might be done as part of a broader process, such as identifying and applying for the permits required for a job.

The conducting of a hazard analysis may be required under a safety case, by organisation procedures or simply as being good practice.

This unit of competency applies to an individual working alone or as part of a team or group and working in liaison with other shift team members and the control room operator, as appropriate.

No licensing, legislative or certification requirements apply to this unit at the time of publication.

## Pre-requisite Unit

Nil

## Competency Field

Work health and safety

## Unit Sector

### Elements and Performance Criteria

Elements describe the essential outcomes

Performance criteria describe the performance needed to demonstrate achievement of the element

1	Define the context for the hazard analysis	1.1	Identify the scope and purpose of the hazard analysis
		1.2	Access the relevant forms or procedures for conducting a hazard analysis
		1.3	Identify specialised knowledge which may be required to conduct the hazard analysis
2	Identify hazards	2.1	Find out job steps to be undertaken
		2.2	Identify hazards of job site
		2.3	Obtain specialised knowledge required
		2.4	Identify hazards for each job step
		2.5	Enter information into appropriate forms in accordance with procedures
3	Assess risks	3.1	Estimate the potential severity/consequence of each identified hazard
		3.2	Consider how hazards may cause harm
		3.3	Estimate the likelihood/possible frequency of harm
		3.4	Use the organisation's risk matrix to prioritise each risk
		3.5	Enter information into appropriate forms in accordance with procedures
4	Control risks	4.1	Apply organisation's risk control procedures
		4.2	Use the hierarchy of control so that risks are as low as reasonably practicable (ALARP)

		4.3	Specify risk controls
		4.4	Check the effectiveness of controls
		4.5	Identify residual risk and implement any additional controls required
		4.6	Enter information into appropriate forms in accordance with procedures.
5	Monitor and review risk controls	5.1	Monitor risk controls and review their effectiveness
		5.2	Keep records in accordance with procedures

## Foundation Skills

This section describes those language, literacy, numeracy and employment skills that are essential to performance.

Foundation skills essential to performance are explicit in the performance criteria of this unit of competency.

## Range of Conditions

This field allows for different work environments and conditions that may affect performance. Essential operating conditions that may be present (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) are included.

### Regulatory framework

The latest version of all legislation, regulations, industry codes of practice and Australian/international standards, or the version specified by the local regulatory authority, must be used, and include one or more of the following:

- legislative requirements, including work health and safety (WHS)
- industry codes of practice and guidelines
- environmental regulations and guidelines
- Australian and other standards
- licence and certification requirements
- Dangerous Goods regulations
- Hazardous substances regulations
- Hazardous Substances Information System
- Major hazard facility requirements, if relevant

- AS 2865-2009 Confined spaces
- AS 1674 Set-2007 Safety in welding and allied processes (covers all hot work)
- AS 4024.1-2014 Series - Safety of machinery
- AS/NZ 1715:2009 Selection use and maintenance of respiratory protective equipment
- National Standard for Plant [NOHSC:1010 (1994)]
- National exposure standards for atmospheric contaminants in the occupational environment [NOHSC:1003 (1995)]

**Scope and purpose**

The scope includes the unique identification of the plant items and/or work area which is the subject of the hazard analysis, and by default the adjoining plant/areas.

The purpose includes undertaking one or more of:

- a routine hazard analysis for a work area
- a hazard analysis for a specified job
- a hazard analysis as a precursor to issuing permits
- other purposes defined by organisation procedures

**Procedures**

All operations must be performed in accordance with relevant procedures.

Procedures are written, verbal, visual, computer-based or in some other form, and include one or more of the following:

- permit control system
- emergency procedures
- work instructions
- standard operating procedures (SOPs)
- safe work method statements (SWMS)
- temporary instructions
- any similar instructions provided for the smooth running of the plant

**Hazards**

Hazards include one or more of the following:

- incomplete process isolations
- mechanical and electrical isolations not in place
- atmospheric testing incomplete and atmosphere unsafe
- smoke, darkness and heat
- heat, smoke, dust or other atmospheric hazards

- electricity
- gas
- gases and liquids under pressure
- structural hazards
- structural collapse
- equipment failures
- industrial (machinery, equipment and product)
- equipment or product mass
- noise, rotational equipment or vibration
- limited head spaces or overhangs
- working at heights, in restricted or confined spaces, or in environments subjected to heat, noise, dusts or vapours
- fire and explosion
- flammability and explosivity
- hazardous products and materials
- unauthorised personnel
- sharp edges, protrusions or obstructions
- slippery surfaces, spills or leaks
- extreme weather
- other hazards that might arise

**Specialised knowledge**

Specialised knowledge includes information sourced from one or more of the following:

- the person doing the job
- an internal or external technical specialist
- a health and safety expert
- other operational personnel
- literature or internet information
- incident and other records
- risk register
- other knowledge resources of the organisation

**Risk**

Risk requires the consideration of the consequences of an event and one or both of:

- likelihood/probability
- expected frequency

**Severity/consequence**

The severity or consequence is typically interpreted against a scale ranging from minor (may require first aid, no lost time, no damage to plant or environment) through to major (may result in death,

significant damage to plant or environment)

**Harm from hazards**

Harm from hazards includes:

- exposure routes (ingestion, inhalation and skin/eye contact)
- chain of events (event/cause tree and bow tie)
- causal sequence which results in harm to persons, environment, plant or product

**ALARP**

ALARP means as low as reasonably practicable and requires:

- identifying the risk reduction measures available
- determining the level of risk reduction that can be achieved and the associated cost
- implementing the risk reduction measure unless the cost is grossly disproportionate to the benefits of the risk reduction
- justifying available measures that are not taken

**Unit Mapping Information**

No equivalent unit.

**Links**

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=d1287d36-dff4-4e9f-ad2c-9d6270054027>

# Assessment Requirements for MSMWHS201 Conduct hazard analysis

## Modification History

Release 1 - New unit

## Performance Evidence

Evidence required to demonstrate competence in this unit must be relevant to and satisfy the requirements of the elements and performance criteria and demonstrate the ability to:

- complete a hazard analysis
- specify risk controls to bring risks to ALARP
- identify relevant personnel
- complete appropriate hazard analysis forms (paper or electronic)
- monitor and review effectiveness of risk controls.

## Knowledge Evidence

Evidence must be provided that demonstrates knowledge of:

- the significance of the analysis context
- how the identified hazards may cause harm
- purpose and use of the risk matrix
- monitoring and review of risk controls.

## Assessment Conditions

- The unit should be assessed holistically and the judgement of competence based on a holistic assessment of the evidence.
- The collection of performance evidence is best done from a hazard analysis report and/or folio of evidence drawn from:
  - a single project which provides sufficient evidence of the requirements of all the elements and performance criteria
  - multiple smaller projects which together provide sufficient evidence of the requirements of all the elements and performance criteria.
- A third-party report, or similar, may be needed to testify to the work done by the individual, particularly when the project has been done as part of a project team.
- Assessment should occur in operational workplace situations. Where this is not possible, or where personal safety or environmental damage are limiting factors, assessment must occur in a sufficiently rigorous simulated environment reflecting realistic operational workplace conditions. This must cover all aspects of workplace performance, including environment, task skills, task management skills, contingency management skills and job role environment skills.

- Knowledge evidence may be collected concurrently with performance evidence (provided a record is kept) or through an independent process, such as workbooks, written assessments or interviews (provided a record is kept).
- Where part of a broader role it may be conveniently co-assessed with units relevant to that broader job.
- Assessment processes and techniques must be appropriate to the language, literacy and numeracy requirements of the work being performed and the needs of the candidate.
- Conditions for assessment must include access to all tools, equipment, materials and documentation required, including relevant workplace procedures, product and manufacturing specifications associated with this unit.
- The regulatory framework will be reflected in workplace policies and procedures and is not required to be independently assessed.
- Foundation skills are integral to competent performance of the unit and should not be assessed separately.
- As a minimum, assessors must satisfy the Standards for Registered Training Organisations 2015 assessor requirements.

## Links

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## **MSMWHS401 Assess risk**

### **Modification History**

Release 1. Supersedes and is equivalent to MSAPMOHS401A Assess risk

### **Application**

This unit of competency covers the skills and knowledge required to identify hazards and operability problems and then analyse them by hazard analysis techniques to assess risk.

This unit of competency is a specialist unit requiring technical knowledge and is suitable for plant technicians and people in similar roles.

A team with a broad knowledge of the system and its operation will carry out the analysis. It is expected that the risk assessment processes are already defined for the enterprise and that the risk acceptance criteria have already been established. The team will be steered by engineering experts or risk assessment specialists in the industry.

This unit of competency applies to workers who take an active role in a hazard and operability study (HAZOP) or similar methodology. They are not expected to lead the HAZOP. This unit is not restricted to HAZOPs and may be applied to other methodologies requiring similar competency. The risk assessment should be consistent with AS/NZS ISO 31000:2009 Risk management – Principles and guidelines.

Team members will contribute their understanding of the process and particularly the operational aspects, and then carry out whatever tasks are assigned to them by the analysis team.

The aim of this unit of competency is to apply a methodical examination of the system and its elements to identify hazards and the states or conditions where there may be loss of control of the hazard and the resultant consequences.

The technique can be applied at any stage of a project/process life cycle.

Although hazard identification should be the main focus, operability problems should be identified to the extent that they have the potential to lead to a breakdown in hazard controls resulting in a health, safety or environmental (HSE) violation or have a negative impact on profitability.

This unit of competency applies to an individual working as part of a team or group.

No licensing, legislative or certification requirements apply to this unit at the time of publication.

## Pre-requisite Unit

Nil

## Competency Field

Work health and safety

## Unit Sector

## Elements and Performance Criteria

Elements describe the essential outcomes

Performance criteria describe the performance needed to demonstrate achievement of the element

1	Identify hazards and potential operability problems	1.1	Contribute to the compiling of a system description of all the machinery, equipment, operations, products and materials relevant to the everyday working procedures of the facility
		1.2	Contribute to the compiling of a checklist containing process parameters (primary key words) and guide words (secondary key words) relevant to the system
		1.3	Identify hazards, existing control measures and potential operability problems or breakdowns in control measures using the compiled system descriptions and the checklist
2	Assess impact of risk and determine alternative strategies	2.1	Screen for causes of deviations and establish consequences
		2.2	Determine alternative strategies for action in relation to each deviation within the range of competency and responsibility
		2.3	Review, clarify and/or analyse risk information to determine its relevance and reliability depending upon

			the task assigned, level of competency and area of responsibility
3	Assess risk information against established risk criteria in risk management plan	3.1	Check risk acceptance criteria for any changes over past period
		3.2	Compare risk information against risk acceptance criteria and procedures to assess acceptability of risk
		3.3	Liaise with other internal departments to assess impact on business, if applicable
		3.4	Document findings according to company policies and procedures
4	Develop a risk register	4.1	Develop a risk assessment chart for each system studied containing deviation, cause, consequence, control measures and action
		4.2	Develop action plan for implementation of control measures, including any changes to procedures
		4.3	Establish or review the procedures by consulting relevant/different work groups.
		4.4	Inform relevant work groups of any changes and implement, within area of responsibility, changes in the procedures
		4.5	Monitor effectiveness of the control measures, including revised procedures
5	Establish and maintain procedures for identifying hazards, and assessing and controlling risk	5.1	Identify and develop procedures for routine hazard identification, assessment and control of risks
		5.2	Address identification of all hazards at the planning, design and evaluation stages of any changes in the workplace to ensure that new hazards are not created by the proposed changes
		5.3	Develop and maintain procedures for selection and implementation of risk control measures in accordance with the hierarchy of control

- 5.4 Identify inadequacies in existing risk control measures in accordance with the hierarchy of control and, within area of responsibility, promptly provide resources enabling implementation of new measures

## Foundation Skills

This section describes those language, literacy, numeracy and employment skills that are essential to performance.

Foundation skills essential to performance are explicit in the performance criteria of this unit of competency.

## Range of Conditions

This field allows for different work environments and conditions that may affect performance. Essential operating conditions that may be present (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) are included.

### Regulatory framework

The latest version of all legislation, regulations, industry codes of practice and Australian/international standards, or the version specified by the local regulatory authority, must be used, and include one or more of the following:

- legislative requirements, including work health and safety (WHS)
- industry codes of practice and guidelines
- environmental regulations and guidelines
- Australian and other standards
- licence and certification requirements

### Procedures

All operations must be performed in accordance with relevant procedures.

Procedures are written, verbal, visual, computer-based or in some other form, and include one or more of the following:

- emergency procedures
- work instructions
- standard operating procedures (SOPs)
- safe work method statements (SWMS)
- formulas/recipes
- batch sheets

- temporary instructions
- any similar instructions provided for the smooth running of the plant

**Hazards**

Hazards include one or more of the following:

- smoke, darkness and heat
- heat, smoke, dust or other atmospheric hazards
- electricity
- gas
- gases and liquids under pressure
- structural hazards
- structural collapse
- equipment failures
- industrial (machinery, equipment and product)
- equipment or product mass
- noise, rotational equipment or vibration
- limited head spaces or overhangs
- working at heights, in restricted or confined spaces, or in environments subjected to heat, noise, dusts or vapours
- fire and explosion
- flammability and explosivity
- hazardous products and materials
- unauthorised personnel
- sharp edges, protrusions or obstructions
- slippery surfaces, spills or leaks
- limited head spaces or overhangs
- extreme weather
- other hazards that might arise

**Non-routine problems**

Non-routine problems must be resolved by applying operational knowledge to develop new solutions, either individually or in collaboration with relevant experts to:

- determine problems needing action
- determine possible fault causes
- develop solutions to problems which do not have a known solution
- follow through items initiated until final resolution has occurred
- report problems outside area of responsibility to designated person

Non-routine problems include one or more of the following:

- incidents with a potential for injury

- fires and explosions
- chemical spills
- bomb scares

Operational knowledge includes one or more of the following:

- procedures
- training
- technical information, such as journals and engineering specifications
- remembered experience
- relevant knowledge obtained from appropriate people

**Risk assessment methodology**

Risk assessment methodology must:

- enhance the understanding of risk and how it may be reduced
- permit the modelling and evaluation of a wide range of failure modes
- enable the analysis to be carried out in a manner that is auditable, repeatable and verifiable
- be usable by other staff
- be appropriate to the system operating in the given domain
- give valid results from the type and quantity of data that is available
- be appropriate for the particular life cycle phase at which it is to be applied
- be supported by standard proformas for the technique
- have a rational technical basis, typically through reference to national or international standards, Defence standards or published reference books

This is not restricted to HAZOP methodology; other methodologies requiring similar competency may be used.

**Process parameters**

Specific process parameters (primary key words) relevant to the system will include three (3) or more of:

- flow
- temperature
- pressure
- relief
- instrumentation
- sampling
- addition
- safety

- reaction
- reduce (grind and crush)
- absorb
- isolate
- vent
- start-up
- composition
- phase
- level
- corrosion
- erosion
- services
- utilities
- maintenance/maintain
- inserting
- purging
- contamination
- separate (settle, filter and centrifuge)
- mix
- drain
- shutdown

## Unit Mapping Information

Release 1. Supersedes and is equivalent to MSAPMOHS401A Assess risk

## Links

Companion Volume implementation guides are found in VETNet -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=d1287d36-dff4-4e9f-ad2c-9d6270054027>

# Assessment Requirements for MSMWHS401 Assess risk

## Modification History

Release 1. Supersedes and is equivalent to MSAPMOHS401A Assess risk

## Performance Evidence

Evidence required to demonstrate competence in this unit must be relevant to and satisfy the requirements of the elements and performance criteria and must include the ability to:

- apply a systematic risk assessment methodology
- identify and interpret information from a range of internal and external sources
- interpret hazard and probability data to determine risk profiles
- communicate with a range of stakeholders to:
  - identify risks and causes
  - identify consequences and assess impact of risks
  - plan and implement changes to procedures
- plan and implement control measures
- apply operational knowledge to non-routine problems
- monitor and evaluate outcomes of control measures and procedures and make improvements as appropriate
- document findings and complete reports.

## Knowledge Evidence

Evidence must be provided that demonstrates knowledge of:

- day-to-day operations of the facility, including:
  - machinery, equipment, operations, products and materials
  - process parameters (primary key words) and guide words (secondary key words)
  - workplace systems and the importance of critical procedures
- hazard identification and control measures
- how hazard controls may break down
- quantitative risk assessment, such as hazard analysis (HAZAN)
- risks and how they may be reduced
- key features of a systematic risk assessment methodology, including:
  - what makes it auditable, repeatable, verifiable and usable by other staff
  - how it can be used for modelling and evaluation of a wide range of failure modes
  - available data and how it can give valid results
  - its rational technical basis
- analysis systems appropriate to the system operating in the given domain and appropriate for the particular life cycle phase at which it is to be applied.



## Assessment Conditions

- The unit should be assessed holistically and the judgement of competence based on a holistic assessment of the evidence.
- The collection of performance evidence is best done from a report and/or folio of evidence drawn from:
  - a single project which provides sufficient evidence of having been a member of a HAZOP (or similar) team and meeting the requirements of all the elements and performance criteria
  - multiple smaller projects which together provide sufficient evidence of the requirements of all the elements and performance criteria.
- A third-party report, or similar, may be needed to testify to the work done by the individual, particularly when the project has been done as part of a project team.
- Assessment should occur in operational workplace situations. Where this is not possible, or where personal safety or environmental damage are limiting factors, assessment must occur in a sufficiently rigorous simulated environment reflecting realistic operational workplace conditions. This must cover all aspects of workplace performance, including environment, task skills, task management skills, contingency management skills and job role environment skills.
- Knowledge evidence may be collected concurrently with performance evidence (provided a record is kept) or through an independent process, such as workbooks, written assessments or interviews (provided a record is kept).
- Assessment processes and techniques must be appropriate to the language, literacy and numeracy requirements of the work being performed and the needs of the candidate.
- Conditions for assessment must include access to all tools, equipment, materials and documentation required, including relevant workplace procedures, product and manufacturing specifications associated with this unit.
- The regulatory framework will be reflected in workplace policies and procedures and is not required to be independently assessed.
- Foundation skills are integral to competent performance of the unit and should not be assessed separately.
- As a minimum, assessors must satisfy the Standards for Registered Training Organisations 2015 assessor requirements.

## Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=d1287d36-dff4-4e9f-ad2c-9d6270054027>

## **MSS014003 Optimise sustainability of a process or plant area**

### **Modification History**

Release 1. Supersedes and is equivalent to MSS014003A Optimise sustainability of a process or plant area.

### **Application**

This unit of competency covers optimising the sustainability performance of a complete work area in a plant or part of the manufacturing value chain. It includes ensuring that production systems comply with sustainability and other environmental requirements and that optimal process, plant and equipment utilisation is planned and carried out. It also covers problem solving to fully meet sustainability needs and to ensure that production of finished goods meets customer requirements.

This unit applies inside organisations and their value chains and has been developed with manufacturing operations as a focus especially work areas that process materials or components to manufacture products. However, because of the range of organisations in a typical manufacturing value chain it may also be applied to other types of organisations.

The unit scope includes products made, services offered, and use of sites by an organisation or manufacturing value chain member (e.g. supplier of goods or services or a customer).

This unit describes the work conducted by senior operators, technicians, team leaders or frontline managers and other support staff who optimise process systems as part of their work function. The unit includes all items of equipment and unit operations which form part of the process of a complete area and assumes that the required production, technical, science or other operational skills and knowledge necessary to work in the process or work area have already been gained.

Environmental sensitivities referred to in this unit are at the issue level. The technical measurement of operational performance or measurement of emissions or other environmental impact is not covered by this unit.

No licensing, legislative or certification requirements apply to this unit at the time of publication.

### **Pre-requisite Unit**

Nil

## Competency Field

Sustainable operations

## Unit Sector

Not applicable

## Elements and Performance Criteria

Elements describe the essential outcomes.

Performance criteria describe the performance needed to demonstrate achievement of the element.

- |   |  |     |  |
|---|--|-----|--|
| 1 | <b>Analyse and evaluate current sustainability performance of process or work area</b> | 1.1 | Identify sustainability goals of the enterprise as they relate to work area.                                   |
|   |  | 1.2 | Compare actual with possible performance.  |
|   |  | 1.3 | Identify abnormal or sub-optimal sustainability performance.   |
|   |  | 1.4 | Identify hazards associated with process, plant and equipment relevant to work area.                           |
|   |  | 1.5 | Collect and evaluate relevant records to determine possible causes for sub-optimal sustainability performance. |
|   |  | 1.6 | Use appropriate techniques to rank possible causes from most to least probable cause.                          |
|   |  |     |  |
| 2 | <b>Develop plan to optimise sustainable performance of process or work area</b>        | 2.1 | Analyse causes to determine action.  |
|   |  | 2.2 | Predict the impact of a change in one unit or area on other value chain components.                            |
|   |  | 2.3 | Predict the impact of a change on sustainability performance.  |
|   |  | 2.4 | Develop measurable objectives and evaluate alternatives.   |
|   |  | 2.5 | Identify requirements to implement change.   |
|   |  | 2.6 | Consult with stakeholders regarding planned changes and impacts.   |

- 2.7 Develop optimisation plan taking account of hazards identified and sustainability implications and communicate to appropriate personnel.
  - 2.8 Evaluate optimisation action to determine measures of effectiveness.
- 3 **Coordinate sustainability optimisation action plan**
  - 3.1 Coordinate all appropriate process steps and operations in order to rectify causes in process, plant and equipment performance.
  - 3.2 Initiate and/or implement all required optimisation actions.
  - 3.3 Communicate optimisation outcomes to all relevant personnel.
  - 3.4 Implement procedures and systems to eliminate possible future causes.
  - 3.5 Record all relevant information.
- 4 **Develop continuous improvement strategies**
  - 4.1 Review sources of information to identify possible factors causing sub-optimal performance.
  - 4.2 Identify options for removing or controlling the risk of sub-optimal performance.
  - 4.3 Assess the adequacy of existing control and quality methods and systems.
  - 4.4 Identify opportunities to continuously improve performance.
  - 4.5 Develop recommendations for continual improvement of process, plant and equipment effectiveness.
  - 4.6 Consult with appropriate personnel and implement continuous improvement strategies.
  - 4.7 Document implementation of continuous improvement strategies.

## Foundation Skills

This section describes those required skills (language, literacy and numeracy) that are essential to performance.

Foundation skills essential to performance are explicit in the performance criteria of this unit of competency.

## Range of Conditions

This field allows for different work environments and conditions that may affect performance. Essential operating conditions that may be present (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) are included.

### **Sustainability includes all of**

- meeting all regulatory requirements
- conforming to all relevant industry covenants, protocols and best practice guides
- minimising ecological footprint of process, plant, product or work area
- maximising economic benefit of process plant and product to the organisation and the community
- minimising the negative work health and safety (WHS) impact on employees, community and customer (e.g. WHS impacts of process, product and wastes).

### **Interactions with the environment include one or more of**

- drawing physical resources from the environment
- releasing materials to the environment (e.g. emissions)
- drawing energy from/releasing energy to the environment.

### **Procedures (written, verbal, visual, computer based, etc.) include one or any combination of**

- work instructions
- standard operating procedures
- safe work method statements
- formulas/recipes
- batch sheets
- temporary instructions
- any similar instructions provided for the smooth running of the plant.

### **Environmental sensitivities include one or more of**

- fragile areas, and rare or threatened species
- heritage or cultural sensitivity issues
- hazardous emissions

	<ul style="list-style-type: none"><li>• real or perceived overuse of scarce resources</li><li>• noise</li><li>• regulated emissions or other regulatory issues</li><li>• community perceptions or other issues.</li></ul>
<b>Performance is indicated by one or more of</b>	<ul style="list-style-type: none"><li>• historical data and records</li><li>• design performance</li><li>• process/takt time requirements.</li></ul>
<b>Sustainability improvements include reduction in use of one or more of</b>	<ul style="list-style-type: none"><li>• energy</li><li>• water</li><li>• raw materials</li><li>• emissions</li><li>• embedded carbon in transport, storage, rework and errors, inefficient processes and design, and general facility efficiencies.</li></ul>
<b>Sustainability related issues include one or more of</b>	<ul style="list-style-type: none"><li>• current and future availability of raw materials</li><li>• current and future availability of energy</li><li>• extent and type of waste generation and disposal</li><li>• efficiency of process in terms of consumption of materials and energy regarded as in short supply or which are regarded as environmentally sensitive</li><li>• the extent to which the production process, product and waste affects the environment</li><li>• relationship with the local and broader community, (e.g. effect of operations on aesthetic appearance, preservation of heritage, and proximity to schools and religious facilities)</li><li>• extent of regulatory oversight and extent and cost of compliance.</li></ul>
<b>Hazards is used to include one or more of</b>	<ul style="list-style-type: none"><li>• sustainability hazards</li><li>• environmental hazards</li><li>• health hazards</li><li>• safety hazards.</li></ul>
<b>Data and records include one or more of</b>	<ul style="list-style-type: none"><li>• orders, project briefs or customer specifications</li><li>• hazard logs</li><li>• incident reports</li><li>• maintenance records</li><li>• errors and non-conformance reports</li><li>• production records.</li></ul>

## Unit Mapping Information

Release 1. Supersedes and is equivalent to MSS014003A Optimise sustainability of a process or plant area.

## Links

Companion Volume implementation guides are found in VETNet -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=5b04f318-804f-4dc0-9463-c3fb9a3fe998>

# **Assessment Requirements for MSS014003 Optimise sustainability of a process or plant area**

## **Modification History**

Release 1. Supersedes and is equivalent to MSS014003A Optimise sustainability of a process or plant area.

## **Performance Evidence**

Evidence required to demonstrate competence in this unit must be relevant to and satisfy the requirements of the elements and performance criteria and include the ability, for one or more process or plant area, to:

- analyse and evaluate current production performance, and develop and implement plans to optimise process systems
- determine sustainability impacts of current processes and products in work area
- develop proposals for improvement to processes that are measurable and positively impact on sustainability.

## **Knowledge Evidence**

Must provide evidence that demonstrates knowledge relevant to their job role sufficient to fulfil their job role independently, including:

- principles and theory of the process, equipment and systems used in the work area
- support functions needed for effective functioning of the process or work area, such as logistics, order processing, warehousing and storage, maintenance and administration
- organisational standard procedures and work instructions
- relevant regulatory requirements, including those related to sustainability and work health and safety (WHS) risk control, as appropriate to process/plant area optimisation
- starting quantity and quality of materials
- efficiency maximisation processes relevant to work area
- throughput maximisation processes relevant to work area
- energy efficiency concepts relevant to work area
- potential ecological impacts of work area processes or products
- use of utilities
- labour utilisation concepts relevant to work area
- minimisation of waste and rework
- potential of improved workplace layout and workflow.

## **Assessment Conditions**

- The unit should be assessed holistically and the judgement of competence shall be based on a holistic assessment of the evidence.



- The collection of performance evidence is best done from a report and/or folio of evidence drawn from:
  - a single project which provides sufficient evidence of the requirements of all the elements and performance criteria
  - multiple smaller projects which together provide sufficient evidence of the requirements of all the elements and performance criteria.
- A third party report, or similar, may be needed to testify to the work done by the individual, particularly when the project has been done as part of a project team.
- Assessment should use a real project where optimising the sustainability performance of a complete work area in a plant or part of the value chain occurs in an operational workplace.
- Knowledge evidence may be collected concurrently with performance evidence or through an independent process such as workbooks, written assessments or interviews (provided a record is kept).
- Assessment processes and techniques must be appropriate to the language, literacy and numeracy requirements of the work being performed and the needs of the candidate.
- Conditions for assessment must include access to all tools, equipment, materials and documentation required including relevant workplace procedures, product and manufacturing specifications associated with this unit.
- Foundation skills are integral to competent performance of the unit and should not be assessed separately.
- Assessors must satisfy the assessor competency requirements that are in place at the time of the assessment as set by the VET regulator.
- The assessor must demonstrate both technical competency and currency.
- Technical competence can be demonstrated through:
  - relevant VET or other qualification/Statement of Attainment AND/OR
  - relevant workplace experience
- Currency can be demonstrated through:
  - performing the competency being assessed as part of current employment OR
  - having consulted with an organisation providing relevant environmental monitoring, management or technology services about performing the competency being assessed within the last twelve months.

## Links

Companion Volume implementation guides are found in VETNet -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=5b04f318-804f-4dc0-9463-c3fb9a3fe998>

## **MSS014004 Develop team strategies for more sustainable use of resources**

### **Modification History**

Not applicable.

### **Application**

This unit of competency covers leading teams and developing strategies for more sustainable use of resources. The team may be in operations, an operational support function (e.g. maintenance, office or warehouse) or along the value chain (e.g. supplier of goods or services or a customer).

This unit applies inside organisations and their value chains. The unit has been developed with manufacturing operations as a focus. However, because of the range of organisations in a typical manufacturing value chain it may also be applied to other types of organisations.

This unit applies where a team leader needs to integrate a range of skills and knowledge covering process skills and knowledge and sustainability. The team leader must lead and assist team members to understand and apply a holistic view of their job and the team's role within the organisation and the objectives that the team must meet as part of the sustainability impacts made by the enterprise.

The unit scope includes products made or services offered, and use of sites by an organisation or manufacturing value chain member (e.g. supplier of goods or services or a customer).

Environmental sensitivities referred to in this unit are at the issue level. The technical measurement of operational performance or measurement of emissions or other environmental impact is not covered by this unit.

No licensing, legislative or certification requirements apply to this unit at the time of publication.

### **Pre-requisite Unit**

Nil

## Competency Field

Sustainable operations

## Unit Sector

Not applicable

## Elements and Performance Criteria

Elements describe the essential outcomes.

Performance criteria describe the performance needed to demonstrate achievement of the element.

1	<b>Facilitate the development of process and sustainability knowledge</b>	1.1	Identify sustainability goals of enterprise as they relate to work area.
		1.2	Ensure capability of the team.
		1.3	Develop mentoring processes for team members in process and sustainability related skills.
		1.4	Structure team activities to facilitate the ongoing development of team members.
		1.5	Arrange for the development of competency by team members as required.
		1.6	Encourage team members to apply technical knowledge to the process.
2	<b>Facilitate team improvements to sustainability</b>	2.1	Ensure sustainability requirements, operating procedures and other relevant documents are available to the team.
		2.2	Assist team members apply relevant information to the sustainability requirements of the team.
		2.3	Encourage team members to identify sub-optimal sustainability performance and make improvement suggestions.
3	<b>Resource a proactive approach to</b>	3.1	Develop communications between specialists outside the team and team members.
		3.2	Develop strategies to monitor and deal with key

	<b>sustainability</b>		sustainability issues in work area.
		3.3	Arrange for resources for team members to identify and take action on sustainability issues.
		3.4	Arrange workforce development for team members, as required, in proactive sustainability techniques.
4	<b>Implement sustainability improvements for work area</b>	4.1	Plan the implementation of team suggested and externally directed sustainability improvements.
		4.2	Facilitate team member commitment to and involvement in the implementation and monitoring of improvements.
		4.3	Encourage the application of the Plan, Do, Check, Act (PDCA) approach to the job.
		4.4	Arrange for workforce development as required to facilitate continued team involvement in sustainability improvement.

## Foundation Skills

This section describes those required skills (language, literacy and numeracy) that are essential to performance.

Foundation skills essential to performance are explicit in the performance criteria of this unit of competency.

## Range of Conditions

This field allows for different work environments and conditions that may affect performance. Essential operating conditions that may be present (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) are included.

- Capability of the team includes one or more of**
- necessary technical knowledge and information about relevant processes and support functions
  - sustainability related goals
  - sustainability knowledge and skills.

- Mentoring**
- mentoring applied by the team leader directly to team members

- processes include one or more of**
- mentoring arranged by the team leader to occur through other internal specialist employees
  - buddy systems within the team where more experienced team members mentor newer team members
  - external mentors and coaches.
- Interactions with the environment include one or more of**
- drawing physical resources from the environment
  - releasing materials to the environment (e.g. emissions)
  - drawing energy from/releasing energy to the environment.
- Environmental sensitivities include one or more of**
- fragile areas and rare or threatened species
  - heritage or cultural sensitivity issues
  - hazardous emissions
  - real or perceived over use of scarce resources
  - noise
  - regulated emissions or other regulatory issues
  - community perceptions or other issues.
- Sustainability improvements include reduction in use of one or more of**
- energy
  - water
  - raw materials
  - emissions
  - embedded carbon in transport, storage, rework and errors, inefficient processes and design.
- Sustainability related issues include one or more of**
- current and future availability of raw materials
  - current and future availability of energy
  - extent and type of waste generation and disposal
  - efficiency of process in terms of consumption of materials and energy regarded as in short supply or which are regarded as environmentally sensitive
  - the extent to which the production process, product and waste affects the environment
  - relationship with the local and broader community (e.g. effect of operations on aesthetic appearance, preservation of heritage, and proximity to schools and religious facilities)
  - extent of regulatory oversight and extent and cost of compliance
  - AS/NZS ISO 14001 Environmental Management Standards (or its authorised replacement or other relevant standard).

**Procedures  
(written, verbal,  
visual, computer  
based, etc.) include  
one or any  
combination of**

- work instructions
- standard operating procedures
- safe work method statements
- formulas/recipes
- batch sheets
- temporary instructions
- any similar instructions provided for the smooth running of the plant.

**Team includes one  
or more of**

- formally designated work teams from all sections of the organisation, including production, maintenance, technical, administration/finance, sales and marketing
- ad hoc, temporary or permanent teams/groups who are or should be working as a team.

## Unit Mapping Information

Release 1. Supersedes and is equivalent to MSS014004A Develop team strategies for more sustainable use of resources.

## Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=5b04f318-804f-4dc0-9463-c3fb9a3fe998>

# **Assessment Requirements for MSS014004 Develop team strategies for more sustainable use of resources**

## **Modification History**

Not applicable.

## **Performance Evidence**

Evidence required to demonstrate competence in this unit must be relevant to and satisfy the requirements of the elements and performance criteria and include the ability, for one or more team, to:

- lead team effectively
- identify key features of current processes in work area
- analyse current team structure and practices for sustainability related implications
- plan, implement and monitor change at the team level.

## **Knowledge Evidence**

Must provide evidence that demonstrates knowledge relevant to their job role sufficient to fulfil their job role independently, including:

- process skills and knowledge of team members
- procedures relevant to jobs and processes in work area
- methods of making/recommending improvements
- environmental impacts of materials and energy used/ emitted
- environmental sensitivities of all areas impacted by the work/process area (and related areas where impact spreads beyond immediate area, e.g. by loss of containment)
- root cause analysis and problem solving
- mitigation strategies as relevant to work/process area
- sustainability issues relevant to the work/process area
- standards and regulations relevant to work/process area.

## **Assessment Conditions**

- The unit should be assessed holistically and the judgement of competence shall be based on a holistic assessment of the evidence.
- The collection of performance evidence is best done from a report and/or folio of evidence drawn from:
  - a single project which provides sufficient evidence of the requirements of all the elements and performance criteria
  - multiple smaller projects which together provide sufficient evidence of the requirements of all the elements and performance criteria.

- A third party report, or similar, may be needed to testify to the work done by the individual, particularly when the project has been done as part of a project team.
- Assessment should use a real project where strategies for more sustainable use of resources are developed within a team context in an operational workplace.
- Knowledge evidence may be collected concurrently with performance evidence or through an independent process such as workbooks, written assessments or interviews (provided a record is kept).
- Assessment processes and techniques must be appropriate to the language, literacy and numeracy requirements of the work being performed and the needs of the candidate.
- Conditions for assessment must include access to all tools, equipment, materials and documentation required including relevant workplace procedures, product and manufacturing specifications associated with this unit.
- Foundation skills are integral to competent performance of the unit and should not be assessed separately.
- Assessors must satisfy the assessor competency requirements that are in place at the time of the assessment as set by the VET regulator.
- The assessor must demonstrate both technical competency and currency.
- Technical competence can be demonstrated through:
  - relevant VET or other qualification/Statement of Attainment AND/OR
  - relevant workplace experience
- Currency can be demonstrated through:
  - performing the competency being assessed as part of current employment OR
  - having consulted with an organisation providing relevant environmental monitoring, management or technology services about performing the competency being assessed within the last twelve months.

## Links

Companion Volume implementation guides are found in VETNet -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=5b04f318-804f-4dc0-9463-c3fb9a3fe998>



## **MSS015005 Develop required sustainability reports**

### **Modification History**

Release 1. Supersedes and is equivalent to MSS015005A Develop required sustainability reports.

### **Application**

This unit of competency covers drafting reports required to meet regulatory or other sustainability reporting requirements. The reports may require the inclusion or interpretation of technical data. It includes the development of formats or internal reporting templates to meet the public reporting needs of the organisation.

This unit applies to the development, production and oversight of sustainability reports for an organisation or part of an organisation. The reports may be required for regulatory, Board, employee, shareholder or community reporting purposes. Reports may be completed by an individual or be prepared by a team. Where team preparation is involved this unit supplies the skills for coordinating the report production.

Reports covered by this unit may relate to all aspects of an organisation's sustainability or may focus on particular aspects, such as carbon footprint, waste generation and control, environmental, ecological and community impacts.

The complexity of the presentation and organisation of data will vary according to the reports required and type and scale of the organisation's processes. A manager or technical specialist who had a major responsibility for sustainability as part of a broader work role would typically undertake this, or sustainability may be their primary work responsibility. The manager or technical specialist may undertake this alone or as part of a team.

No licensing, legislative or certification requirements apply to this unit at the time of publication.

### **Pre-requisite Unit**

Nil

### **Competency Field**

Sustainable operations

## Unit Sector

Not applicable

## Elements and Performance Criteria

Elements describe the essential outcomes.

Performance criteria describe the performance needed to demonstrate achievement of the element.

1	<b>Determine requirements of sustainability report</b>	1.1	Establish purpose of report.
		1.2	Determine compliance requirements of report.
		1.3	Identify any commercial requirements which may be impacted by these requirements.
		1.4	Determine benefits which may be obtained from report for the organisation.
2	<b>Locate data sources and processes needed to generate required information</b>	2.1	Identify sources of data currently available within the organisation.
		2.2	Identify external sources of data required.
		2.3	Identify any data gaps and develop strategies for obtaining required data.
		2.4	Obtain necessary authority to access external data sources, as required.
		2.5	Negotiate with relevant stakeholders to obtain necessary data which is not currently available.
3	<b>Develop templates, protocols and procedures needed for report</b>	3.1	Develop data collection and information reporting templates and procedures.
		3.2	Implement systems and procedures for obtaining required information from collected data.
		3.3	Develop templates and protocols for required report sections and appendices.
		3.4	Ensure other report contributors have the required competencies and resources to draft their input.

- |   |                                |  |
|---|--------------------------------|--|
|   | 3.5                            | Agree on timelines for preparation of report components.                   |
| 4 | <b>Compile required report</b> | 4.1 Monitor the development of report components.                          |
|   |                                | 4.2 Take action to ensure timely completion of components to requirements. |
|   |                                | 4.3 Assemble components into report.                                       |
|   |                                | 4.4 Complete report.   |
|   |                                | 4.5 Review and adjust completed report, as required.                       |

## Foundation Skills

This section describes those required skills (language, literacy and numeracy) that are essential to performance.

Foundation skills essential to performance are explicit in the performance criteria of this unit of competency.

## Range of Conditions

This field allows for different work environments and conditions that may affect performance. Essential operating conditions that may be present (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) are included.

- |   |   |
|---|---|
| <b>Compliance requirements include one or more of</b> | • regulatory requirements (e.g. energy efficiency, hazardous waste, National Pollutant Inventory (NPI), emissions and carbon) |
|   | • state/federal environment departments   |
|   | • local government  |
|   | • energy/water authorities  |
|   | • Therapeutic Goods Administration (TGA)  |
|   | • AS/NZS ISO 14001 Environmental Management Standards (or its authorised replacement or other relevant standard)              |
|   | • other regulatory bodies.  |
| <b>Commercial reporting</b>                           | • Australian Stock Exchange (ASX)   |
|   | • Australian Competition and Consumer Commission (ACCC)   |

**requirements  
include reports  
required by, or for  
one or more of**

- Board of Directors
- shareholders
- lending and insurance organisations
- employees
- community groups.

**Sustainability  
impact includes one  
or more of**

- resource footprint (e.g. water, carbon and carbon equivalent) of product and process
- current and future availability of raw materials
- current and future availability of energy
- waste generation and disposal
- efficiency of process
- the extent to which the production process and product affects the environment
- relationship with the local and broader community
- extent of regulatory oversight and cost of compliance.

## Unit Mapping Information

Release 1. Supersedes and is equivalent to MSS015005A Develop required sustainability reports.

## Links

Companion Volume implementation guides are found in VETNet -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=5b04f318-804f-4dc0-9463-c3fb9a3fe998>

# Assessment Requirements for MSS015005 Develop required sustainability reports

## Modification History

Release 1. Supersedes and is equivalent to MSS015005A Develop required sustainability reports.

## Performance Evidence

Evidence required to demonstrate competence in this unit must be relevant to and satisfy the requirements of the elements and performance criteria and include the ability, for one or more reports, to:

- accurately identify compliance and commercial aspects of the report
- ensure information collection and processing are appropriate for scope of required report
- produce report to required format and timeline.

## Knowledge Evidence

Must provide evidence that demonstrates sufficient knowledge to interact with relevant personnel and be able to draft/develop sustainability reports including knowledge of:

- sustainability related regulatory and other compliance reporting requirements
- commercial reporting requirements
- possible organisational benefits from sustainability reporting
- internal and external data sources
- organisational protocols and procedures for obtaining and using data
- data manipulation and interpretation
- project planning and control
- editing and reviewing of report inputs by others
- AS/NZS ISO 14001 Environmental Management Standards (or its authorised replacement or other relevant standard).

## Assessment Conditions

- The unit should be assessed holistically and the judgement of competence shall be based on a holistic assessment of the evidence.
- The collection of performance evidence is best done from a report and/or folio of evidence drawn from:
  - a single project which provides sufficient evidence of the requirements of all the elements and performance criteria
  - multiple smaller projects which together provide sufficient evidence of the requirements of all the elements and performance criteria.

- A third party report, or similar, may be needed to testify to the work done by the individual, particularly when the project has been done as part of a project team.
- Assessment should use a real project where a sustainability report is developed for an operational workplace.
- Knowledge evidence may be collected concurrently with performance evidence or through an independent process such as workbooks, written assessments or interviews (provided a record is kept).
- Assessment processes and techniques must be appropriate to the language, literacy and numeracy requirements of the work being performed and the needs of the candidate.
- Conditions for assessment must include access to all tools, equipment, materials and documentation required including relevant workplace procedures, product and manufacturing specifications associated with this unit.
- Foundation skills are integral to competent performance of the unit and should not be assessed separately.
- Assessors must satisfy the assessor competency requirements that are in place at the time of the assessment as set by the VET regulator.
- The assessor must demonstrate both technical competency and currency.
- Technical competence can be demonstrated through:
  - relevant VET or other qualification/Statement of Attainment AND/OR
  - relevant workplace experience
- Currency can be demonstrated through:
  - performing the competency being assessed as part of current employment OR
  - having consulted with an organisation providing relevant environmental monitoring, management or technology services about performing the competency being assessed within the last twelve months.

## Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=5b04f318-804f-4dc0-9463-c3fb9a3fe998>

## **MSS024003 Apply an understanding of environmental principles to a site**

### **Modification History**

Release 1. Supersedes and is equivalent to MSS024003A Apply an understanding of environmental principles to a site

### **Application**

This unit of competency covers the ability to ‘read the landscape’ in terms of the physical and biological components of the environment and the ecological linkages in operation at a site. Personnel are required to apply basic principles of geomorphology, hydrology and ecology in a systematic, scientific appraisal of site condition. This requires sufficient knowledge of chemistry, physics, geology and biology to support a scientific approach to field ecology.

This unit of competency is applicable to environmental technicians working in a range of industry sectors, such as environmental monitoring, and sampling (e.g. air quality, water, soil and noise); environmental compliance, auditing and inspection; groundwater and clean water (e.g. catchment supply, environmental flows); water treatment, storm and wastewater management; solid and hazardous waste management; site remediation; management of contaminated sites; geotechnical services and civil engineering; and natural resource management.

While no specific licensing or certification requirements apply to this unit at the time of publication, environmental monitoring and management activities are governed by relevant legislation, regulations and/or external accreditation requirements. Local requirements should be checked.

### **Pre-requisite Unit**

Nil

### **Competency Field**

Environmental monitoring

### **Unit Sector**

Environmental

## Elements and Performance Criteria

Elements describe the essential outcomes.

Performance criteria describe the performance needed to demonstrate achievement of the element.

- |   |   |  |
|---|---|--|
| 1 | <b>Prepare for site inspection</b>                  | 1.1 Obtain and use maps, photos and related documentation to gain a preliminary understanding of site features.                              |
|   |   | 1.2 Collect site-specific or regional data on expected flora, fauna, soils and climate.  |
|   |   | 1.3 Review site history and previous environmental or ecological studies, if available.  |
|   |   | 1.4 Review all emergency plans, risk assessments, and safety and environmental management requirements associated with the field activities. |
|   |   | 1.5 Review legislative and planning instruments applicable to current and future site usage.   |
|   |   | 1.6 Confirm site access requirements and identify potential site hazards.  |
|   |   |  |
| 2 | <b>Conduct initial site survey</b>                  | 2.1 Sketch, map and/or photograph the site.  |
|   |   | 2.2 Observe and record the surface geology and geomorphology of the site.  |
|   |   | 2.3 Observe and record hydrology of the site.  |
|   |   | 2.4 Observe and record the major flora of the site.  |
|   |   | 2.5 Observe and record evidence of site fauna.   |
|   |   | 2.6 Observe and record infrastructure and other modifications to the site.   |
|   |   | 2.7 Consider the potential for presence of cultural and indigenous heritage items and record, as necessary.                                  |
|   |   | 2.8 Check for evidence of illegal or inappropriate activities.   |
|   |   |  |
| 3 | <b>Make an initial assessment of site condition</b> | 3.1 Use geomorphological and hydrological observations to describe surface condition and infer potential future impacts.                     |



- |   |   |     |  |
|---|---|-----|--|
|   |   | 3.2 | Make inferences on apparent ecological health of the site to plan for an initial ecological study of the site.   |
|   |   | 3.3 | Determine the physical, chemical and biological parameters that would need to be measured and/or sampled during subsequent ecological appraisal of the site. |
| 4 | <b>Prepare for field study</b>                            | 4.1 | Identify and describe the biological and chemical components of interest, sampling areas and field techniques to be used.                                    |
|   |   | 4.2 | Identify, obtain and check required equipment and materials required for field study.  |
|   |   | 4.3 | Securely stow all field equipment in vehicle to prevent damage in transit.   |
|   |   | 4.4 | Safely transport all field equipment to site and prepare it for use.   |
| 5 | <b>Perform a basic ecological field study of the site</b> | 5.1 | Perform ecological sampling for abundance and diversity parameters using the general techniques of transects and quadrats.                                   |
|   |   | 5.2 | Record appropriate descriptions of the habitat structure.  |
|   |   | 5.3 | Perform sampling for simple population, demographic and age structure parameters.  |
|   |   | 5.4 | Perform simple sampling and measurements on abiotic components.  |
|   |   | 5.5 | Perform simple targeted species sampling.  |
|   |   | 5.6 | Ensure compliance with relevant legislation, policy, codes of practice and accepted workplace procedures.  |
| 6 | <b>Finalise field study</b>                               | 6.1 | Ensure all samples and data are stored safely.   |
|   |   | 6.2 | Rehabilitate sampling sites to render them safe and minimise environmental impacts.  |
|   |   | 6.3 | Clean all equipment, containers, work area and vehicles  |

		according to workplace procedures.
	6.4	Pack and safely transport all samples, equipment and supplies back to home base.
	6.5	Ensure dispatch of collected samples for subsequent analysis, as necessary.
	6.6	Check serviceability of all equipment before storage.
7	<b>Process and present field data</b>	<p>7.1 Summarise field data using simple calculations, graphs, tables and/or maps.</p> <p>7.2 Provide reports that include simple conclusions and interpretations based on raw or summarised data.</p>
8	<b>Maintain a safe work environment</b>	<p>8.1 Use defined safe work practices and personal protective equipment (PPE) to ensure personal safety and that of others.</p> <p>8.2 Minimise the generation of waste.</p> <p>8.3 Ensure the safe collection of all hazardous wastes for appropriate disposal.</p>

## Foundation Skills

This section describes those required skills (language, literacy and numeracy) that are essential to performance.

Foundation skills essential to performance are explicit in the performance criteria of this unit of competency.

## Range of Conditions

This field allows for different work environments and conditions that may affect performance. Essential operating conditions that may be present (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) are included.

### Legislation, regulations, standards, codes,

- federal legislation, such as the Environment Protection and Biodiversity Conservation Act, Australian Heritage Council Act, Native Title Act and National Environmental

**workplace procedures and requirements include the latest version of one or more of:**

**Protection Measures**

- state/territory government legislation and local government by-laws, policies, regulations and plans dealing with land use; environmental protection; cultural/heritage sites; vegetation management; nature conservation and wildlife/plant protection; water and water management; soil conservation; pollution and contaminated sites; fisheries, forestry and mining operations
- legislation, standards and codes of practice for workplace health and safety (WHS); care and use of animals for scientific purposes; handling of dangerous goods
- Australian and international standards covering environmental management, such as AS/NZS ISO 14000 Basic Set:2007 Environmental Management Basic Set, and AS 1726 Geotechnical site investigations;
- registration/licensing and/or accreditation requirements
- workplace environmental management plans and procedures for specific sites and/or activities (e.g. sampling, monitoring, construction and mining)
- workplace documents, such as standard operating procedures (SOPs), work schedules, recording and reporting procedures, equipment manuals and warranties; safety data sheets (SDS) and safety procedures; waste minimisation, containment, processing and safe disposal procedures.

**Ecological principles and concepts include one or more of:**

- ecosphere, biome and major ecosystem types
- ecological niche and biogeography
- trophic dynamics, autotrophs, heterotrophs and detritivores, and food webs
- distribution and abundance of organisms, populations and communities, and biodiversity
- abiotic and biotic components and their interrelationships and dependencies
- energy and material flows and cycles, including biogeochemical cycles
- population ecology:
- distribution, abundance and dispersion
- growth rates and age structures
- migration and dispersal in space and time
- behavioural ecology (communication and learning, aggression and territoriality, and social group dynamics)
- community ecology (ecological interactions):
- intra/interspecific competition

- concepts of coexistence, adaptive and competitive, including mimicry, coevolution, parasitism, mutualism, commensalism and predator/prey systems
- species diversity in time and space.

**Earth science principles and concepts include one or more of:**

- geological concepts and principles, such as:
  - earth structure and plate tectonics
  - classification of rocks (e.g. igneous, sedimentary, volcanic and stratigraphy)
  - weathering
- geomorphological concepts and principles, such as:
  - erosion and mass wasting
  - transportation and deposition, and sedimentation
  - fluvial, aeolian, hillslope and weathering processes
- soil science concepts and principles, such as:
  - soil classification
  - soil formation and soil profiles
  - pedology
  - edapology.

**Hydrological principles and concepts include one or more of:**

- aspects of the hydrologic cycle, such as:
  - run-off
  - infiltration
  - subsurface flow
  - water quality
  - ecohydrology
  - hydrogeology
  - water resources
- aspects of hydrologic measurement such as:
  - surface flows (stream gauging)
  - groundwater (infiltration and flow)
  - precipitation and evaporation.

**Workplace procedures for field activities include one or more of:**

- use of field notebooks or log books
- SOPs covering fieldwork, sampling and testing
- equipment operating manuals, calibration procedures, instrument fault-finding procedures and general maintenance and repair procedures
- emergency, first aid and survival procedures

- requirements related to protection of the environment
- incident/accident/injury report forms.

**Field monitoring activities include one or more of:**

- sample collection, preservation, labelling, storage and transportation according to workplace procedures
- use and calibration of field instruments according to written instructions
- performance of field tests for specific parameters using standard methods
- recording of data
- safe operation of motor vehicles and boats.

**Hazards include one or more of:**

- solar radiation, dust and noise
- personnel getting lost
- accidents, emergencies and incidents, such as snake, insect or animal bites
- exposure to severe weather conditions
- manual handling of heavy objects
- vehicle and boat handling in rough/remote conditions.

**WHS and environmental management requirements include:**

- compliance with relevant federal/state/territory WHS legislation at all times
- assuming that samples are potentially hazardous and applying standard precautions
- accessing and applying current industry understanding of infection control issued by the National Health and Medical Research Council (NHMRC) and state/territory Departments of Health, where relevant.

## Unit Mapping Information

Release 1. Supersedes and is equivalent to MSS024003A Apply an understanding of environmental principles to a site

## Links

Companion Volume implementation guides are found in VETNet -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=5b04f318-804f-4dc0-9463-c3fb9a3fe998>

# Assessment Requirements for MSS024003 Apply an understanding of environmental principles to a site

## Modification History

Release 1. Supersedes and is equivalent to MSS024003A Apply an understanding of environmental principles to a site

## Performance Evidence

Evidence of competence in this unit must satisfy all of the requirements of the elements and performance criteria, and include demonstration of:

- planning and conducting at least one (1) site appraisal that involves an initial survey and assessment of site condition and a basic ecological field study
- applying relevant aspects of environmental legislative and planning framework to site appraisal
- interpreting emergency, safety or environmental management plan requirements and procedures for conducting site inspections, surveys and ecological field studies
- researching, reviewing and summarising site information, including its environmental history
- accurately observing and recording the site's significant features, including the ability to 'step back' and carefully consider observations and inferences
- assessing site condition and determining relevant parameters to be measured/sampled during ecological field study
- planning and conducting an ecological study to obtain relevant and reliable data
- setting-up, calibrating and using instruments and equipment under laboratory and field conditions
- applying specified methods and data quality procedures to accurately perform field sampling and measurements
- applying a working knowledge of relevant terminology, concepts and principles in geology, geomorphology, hydrology and ecology to provide a scientific, systematic appraisal of site environmental condition
- seeking advice when issues/problems are beyond scope of competence/responsibility
- using clear and concise verbal communication to convey information and avoid or resolve work conflicts
- preparing concise and accurate reports that contain simple conclusions and interpretations based on raw or summarised data
- following procedures for working safely, transporting and storing equipment, minimising environmental impacts and responding to emergency incidents and accidents.

## Knowledge Evidence

Must provide evidence that demonstrates knowledge of:

- scientific terminology for environmental and ecological systems relevant to job role
- fundamental concepts and principles in chemistry, physics, geology and biology to support a scientific approach to basic field ecology, including:
  - structure of earth systems, including lithosphere, hydrosphere, atmosphere and biosphere (ecosphere)
  - geomorphology, climate and hydrology
  - energy and material flows and cycles, including biogeochemical cycles
- fundamentals of ecology, including:
  - ecosphere, biome and major ecosystem types
  - trophic structure of ecosystems, and hierarchies
  - organism, population, community, ecosystem hierarchy; habitat and biodiversity
  - abiotic and biotic components and their interrelationships and dependencies
  - ecological systems and dynamics; stability, succession and disruption
- specific legislation, policies and codes of practice related to ecological field activities
- ecological, chemical and physical field monitoring procedures relevant to job role
- procedures for maintaining, storing and transporting samples/specimens to ensure their wellbeing, viability and integrity
- relevant hazards; health, safety and environment requirements, including field safety/survival principles.

## Assessment Conditions

- Judgement of competence must be based on holistic assessment of the evidence. Assessment methods must confirm consistency of performance over time, rather than a single assessment event.
- This unit of competency is to be assessed in the workplace, or a simulated workplace environment. A simulated workplace environment must reflect realistic operational workplace conditions that cover all aspects of workplace performance, including the environment, task skills, task management skills, contingency management skills and job role environment skills.
- Foundation skills are integral to competent performance of the unit and should not be assessed separately.
- Assessment processes and techniques must be appropriate to the language, literacy and numeracy requirements of the work being performed and the needs of the candidate.
- Knowledge evidence may be collected concurrently with performance evidence or through an independent process such as workbooks, written assessments or interviews (provided a record is kept in each case).
- Holistic assessment methods include:
  - review of data, results and site reports prepared by the candidate
  - feedback from supervisors that the candidate consistently follows workplace procedures when conducting site appraisals; works safely; accurately observes site features; and produces work outputs within agreed timeframes
  - review of candidate's responses to simulated emergency incidents, accidents and/or field survival scenarios

- oral and/or written questions to assess the candidate's understanding of scientific terminology, concepts and principles associated with appraising the environmental condition of sites; regulations and workplace procedures associated with field activities; sampling and measurement methods; and interpretation of site observations
- observation of the candidate conducting site appraisals.
- Access is required to all instruments, equipment, materials, workplace documentation, procedures, and specifications associated with this unit, including, but not limited to:
  - access to suitable sites and a vehicle
  - survey equipment, sampling/monitoring equipment, cameras, consumables, maps and flora/fauna keys
  - documentation, including site information, environmental management plans, codes of practice and field protocols, equipment manuals, workplace procedures and test/survey methods.
- Assessors must satisfy the assessor competency requirements that are in place at the time of the assessment as set by the VET regulator.
- The assessor must demonstrate both technical competency and currency.
- Technical competence can be demonstrated through:
  - relevant VET or other qualification/Statement of Attainment AND/OR
  - relevant workplace experience
- Currency can be demonstrated through:
  - performing the competency being assessed as part of current employment OR
  - having consulted with an organisation providing environmental monitoring, management or technology related services about performing the competency being assessed within the last twelve months.

## Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=5b04f318-804f-4dc0-9463-c3fb9a3fe998>



## **MSS402001 Apply competitive systems and practices**

### **Modification History**

Release 1 - Supersedes and is equivalent to MSS402001A Apply competitive systems and practices

### **Application**

This unit of competency covers the skills and knowledge required to implement basic improvement practices within an organisation using competitive systems and practices. The unit focuses on bringing together the basic concepts and the holistic application of these basic concepts and processes to operations. It would typically be carried out working as part of a team.

This unit applies to an individual in an organisation that has embarked on competitive systems and practices. The unit covers the skills and knowledge required to contribute to the competitive systems and practices processes and assumes that they are to be used within the scope of the individual's job and authority.

This unit requires the application of skills associated with planning and organising an individual's own role within the competitive systems and practices framework.

No licensing, legislative or certification requirements apply to this unit at the time of publication.

### **Pre-requisite Unit**

Nil

### **Competency Field**

Competitive systems and practices

### **Unit Sector**

Not applicable

### **Elements and Performance Criteria**

Elements describe the      Performance criteria describe the performance needed to

essential outcomes.

demonstrate achievement of the element.

- |   |  |     |  |
|---|--|-----|--|
| 1 | <b>Identify own place in the value chain</b> | 1.1 | Identify customers relevant to own work and their needs/requirements.                          |
|   |  | 1.2 | Identify suppliers for own work.   |
|   |  | 1.3 | Identify value contributions along the chain.  |
|   |  | 1.4 | Identify and recommend methods of increasing own contribution to the value chain.              |
|   |  |     |  |
| 2 | <b>Improve the product and process value</b> | 2.1 | Identify customer features/benefits in the product and process.                                |
|   |  | 2.2 | Identify aspects of product and process which contribute to customer features/benefits.        |
|   |  | 2.3 | Identify aspects of product and process which do not contribute to customer benefits/features. |
|   |  | 2.4 | Recommend methods of reducing waste and increasing features/benefits.                          |
|   |  |     |  |
| 3 | <b>Use competitive systems and practices</b> | 3.1 | Identify competitive systems and practices used in organisation and own work area.             |
|   |  | 3.2 | Apply practices appropriate for the job or process.  |
|   |  | 3.3 | Monitor the job/process and make adjustments to improve it in accordance with procedures.      |
|   |  | 3.4 | Identify own skill requirements and seek skill development, if required.                       |

## Foundation Skills

This section describes those required skills (language, literacy and numeracy) that are essential to performance.

Foundation skills essential to performance are explicit in the performance criteria of this unit of competency.

## Range of Conditions

This field allows for different work environments and conditions that may affect performance. Essential operating conditions that may be present (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) are included.

**Competitive systems and practices include one or more of:**

- lean operations
- agile operations
- preventative and predictive maintenance approaches
- statistical process control systems, including six sigma and three sigma
- Just in Time (JIT), kanban and other pull-related operations control systems
- supply, value, and demand chain monitoring and analysis
- 5S
- continuous improvement (kaizen)
- breakthrough improvement (kaizen blitz)
- cause/effect diagrams
- overall equipment effectiveness (OEE)
- takt time
- process mapping
- problem solving
- run charts
- standard procedures
- current reality tree.

**Customers include one or more of:**

- internal or external customers and should be sufficiently close to the individual's work as to be easily identifiable
- final customers used as the basis for the identification of value and waste.

**Suppliers include one or more of:**

- internal suppliers
- external suppliers sufficiently close to the individual's work as to be easily identifiable.

**Procedures (written, verbal, visual, computer based, etc.) include one or more of:**

- work instructions
- standard operating procedures (SOPs)
- safe work method statements
- formulas/recipes
- batch sheets
- temporary instructions

- any similar instructions provided for the smooth running of the plant.

## Unit Mapping Information

Release 1. Supersedes and is equivalent to MSS402001A Apply competitive systems and practices

## Links

Companion Volume implementation guides are found in VETNet -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=5b04f318-804f-4dc0-9463-c3fb9a3fe998>

# **Assessment Requirements for MSS402001 Apply competitive systems and practices**

## **Modification History**

Release 1 - Supersedes and is equivalent to MSS402001A Apply competitive systems and practices

## **Performance Evidence**

Evidence required to demonstrate competence in this unit must be relevant to and satisfy the requirements of the elements and performance criteria and include the ability to always apply competitive systems and practices to their own job to:

- identify own place in the value chain relevant to their job
- use competitive systems and practices tools and thinking
- recommend improvements in product and/or process.

## **Knowledge Evidence**

Must provide evidence that demonstrates knowledge relevant to their job role sufficient to fulfil their job role under routine only supervision, including:

- customer requirements and their role in fulfilling them
- the value chain for products they make and their place in it
- identification of muda (waste) and its reduction.

## **Assessment Conditions**

- The unit should be assessed holistically and the judgement of competence shall be based on a holistic assessment of the evidence.
- The collection of performance evidence:
  - should occur over a range of situations which include typical disruptions to normal, smooth operation of the workplace
  - will typically include a supervisor/third-party report focussing on consistent performance and problem recognition and solving. A supervisor/third-party report must be prepared by someone who has a direct, relevant, current relationship with the person being assessed and who is in a position to form a judgement on workplace performance relevant to the unit of competency
  - must include the application of competitive systems and practice in own workplace
  - will typically include the use of appropriate tools, equipment and safety gear requiring demonstration of preparation, operation, completion and responding to problems.
- Assessment should occur in operational workplace situations.

- Knowledge evidence may be collected concurrently with performance evidence (provided a record is kept) or through an independent process such as workbooks, written assessments or interviews (provided a record is kept).
- Assessment processes and techniques must be appropriate to the language, literacy and numeracy requirements of the work being performed and the needs of the candidate.
- Conditions for assessment must include access to all tools, equipment, materials and documentation required, including relevant workplace procedures, product and manufacturing specifications associated with this unit.
- Foundation skills are integral to competent performance of the unit and should not be assessed separately.
- Assessors must satisfy the assessor competency requirements that are in place at the time of the assessment as set by the VET regulator.
- The assessor must demonstrate both technical competency and currency.
- Technical competence can be demonstrated through:
  - relevant VET or other qualification/Statement of Attainment AND/OR
  - relevant workplace experience
- Currency can be demonstrated through:
  - performing the competency being assessed as part of current employment OR
  - having consulted with an organisation providing relevant environmental monitoring, management or technology services about performing the competency being assessed within the last twelve months.

## Links

Companion Volume implementation guides are found in VETNet -  
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## **MSS402002 Sustain process improvements**

### **Modification History**

Release 1. Supersedes and is equivalent to MSS402002A Sustain process improvements

### **Application**

This unit of competency covers the skills and knowledge required by an individual to prevent process improvements in their own work from slipping back to former practices or digressing to less efficient practices.

This unit applies to organisations implementing competitive systems and practices and continuous improvement. It covers the skills needed to ensure that process improvements are sustained and opportunities taken to suggest further improvements.

Improvement initiatives can be made by any of a number of methods and by teams or individuals. The unit assumes that desired levels of performance or quality are known to employees.

The unit can be applied to all areas of an organisation, including production, maintenance, logistics and office functions.

This unit requires the application of skills associated with problem solving, initiative and enterprise and self-management in order to understand implement and monitor improvement practices. It also requires the ability to identify and address personal skill gaps in order to manage own ability to implement change.

No licensing, legislative or certification requirements apply to this unit at the time of publication.

### **Pre-requisite Unit**

Nil

### **Competency Field**

Competitive systems and practices

## Unit Sector

Not applicable

## Elements and Performance Criteria

Elements describe the essential outcomes.

Performance criteria describe the performance needed to demonstrate achievement of the element.

- |   |                                       |     |   |
|---|---------------------------------------|-----|---|
| 1 | <b>Examine previous improvements</b>  | 1.1 | Identify impact of previous process improvements to equipment, operations, services or products in own work area. |
|   |                                       | 1.2 | Identify improvements where objectives have not been met.   |
| 2 | <b>Implement corrective actions</b>   | 2.1 | Identify corrective actions that can be taken by self on process improvements that have not met objectives.       |
|   |                                       | 2.2 | Obtain any required approvals.  |
|   |                                       | 2.3 | Identify any additional, personal skill gaps and seek skill development.  |
|   |                                       | 2.4 | Adopt improved processes.   |
| 3 | <b>Check changes</b>                  | 3.1 | Identify claimed improvements.  |
|   |                                       | 3.2 | Identify methods of observing and measuring claimed improvements in own work area.                                |
|   |                                       | 3.3 | Check if claimed improvements are occurring and report problems in accordance with procedures.                    |
| 4 | <b>Check for further improvements</b> | 4.1 | Look for areas of possible further improvement.   |
|   |                                       | 4.2 | Discuss further improvements with peers and supervisors.  |
|   |                                       | 4.3 | Take action to implement improvements in accordance with procedures.  |



## Foundation Skills

This section describes those required skills (language, literacy and numeracy) that are essential to performance.

Foundation skills essential to performance are explicit in the performance criteria of this unit of competency.

## Range of Conditions

This field allows for different work environments and conditions that may affect performance. Essential operating conditions that may be present (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) are included.

- Competitive systems and practices include one or more of:**
- lean operations
  - agile operations
  - preventative and predictive maintenance approaches
  - statistical process control systems, including six sigma and three sigma
  - Just in Time (JIT), kanban and other pull-related operations control systems
  - supply, value, and demand chain monitoring and analysis
  - 5S
  - continuous improvement (kaizen)
  - breakthrough improvement (kaizen blitz)
  - cause/effect diagrams
  - overall equipment effectiveness (OEE)
  - takt time
  - process mapping
  - problem solving
  - run charts
  - standard procedures
  - current reality tree.

- Customers include one or more of:**
- internal customers
  - external customers sufficiently close to the individual's work as to be easily identifiable
  - final customers used as the basis for the identification of value and waste.

- Suppliers include**
- internal suppliers

**one or more of:**

- external suppliers sufficiently close to the individual's work as to be easily identifiable.

**Measuring improvements includes one or more of:**

- personally taking measurements
- arranging for measurements to be taken/made by appropriate personnel.

**Procedures (written, verbal, visual, computer based, etc.) include one or any combination of:**

- work instructions
- standard operating procedures (SOPs)
- safe work method statements
- formulas/recipes
- batch sheets
- temporary instructions
- any similar instructions provided for the smooth running of the plant.

**Corrective actions to sustain improvements include one or more of:**

- techniques for preventing mistakes by designing the operations process, equipment and tools so that an operation literally cannot be performed incorrectly (e.g. baka-yoke)
- techniques that generate warning signals where a mistake is about to be performed (poka-yoke)
- administrative techniques, such as procedure/work instruction changes
- skilling techniques, such as training, mentoring, demonstration
- process techniques, such as changing the process/conditions/variables.

## Unit Mapping Information

Release 1. Supersedes and is equivalent to MSS402002A Sustain process improvements

## Links

Companion Volume implementation guides are found in VETNet -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=5b04f318-804f-4dc0-9463-c3fb9a3fe998>

# Assessment Requirements for MSS402002 Sustain process improvements

## Modification History

Release 1. Supersedes and is equivalent to MSS402002A Sustain process improvements

## Performance Evidence

Evidence required to demonstrate competence in this unit must be relevant to and satisfy the requirements of the elements and performance criteria and include the ability to examine three (3) or more previous improvements, including one (1) or more where improvement objectives have not been met, and to:

- identify corrective actions that can be taken by self
- implement those corrective actions
- check whether the claimed improvements have occurred
- check for further improvements.

## Knowledge Evidence

Must provide evidence that demonstrates knowledge relevant to their job role sufficient to fulfil their job role under routine only supervision, including:

- muda (waste)
- indicators of processes not delivering claimed improvements
- baka-yoke and poka-yoke techniques.

## Assessment Conditions

- The unit should be assessed holistically and the judgement of competence shall be based on a holistic assessment of the evidence.
- The collection of performance evidence:
  - should occur over a range of situations which include typical disruptions to normal, smooth operation of the workplace
  - will typically include a supervisor/third-party report focussing on consistent performance and problem recognition and solving. A supervisor/third-party report must be prepared by someone who has a direct, relevant, current relationship with the person being assessed and who is in a position to form a judgement on workplace performance relevant to the unit of competency
  - must include actions to sustain process improvements in own workplace
  - will typically include the use of appropriate tools, equipment and safety gear requiring demonstration of preparation, operation, completion and responding to problems.
- Assessment should occur in operational workplace situations.

- Knowledge evidence may be collected concurrently with performance evidence (provided a record is kept) or through an independent process such as workbooks, written assessments or interviews (provided a record is kept).
- Assessment processes and techniques must be appropriate to the language, literacy and numeracy requirements of the work being performed and the needs of the candidate.
- Conditions for assessment must include access to all tools, equipment, materials and documentation required, including relevant workplace procedures, product and manufacturing specifications associated with this unit.
- Foundation skills are integral to competent performance of the unit and should not be assessed separately.
- Assessors must satisfy the assessor competency requirements that are in place at the time of the assessment as set by the VET regulator.
- The assessor must demonstrate both technical competency and currency.
- Technical competence can be demonstrated through:
  - relevant VET or other qualification/Statement of Attainment AND/OR
  - relevant workplace experience
- Currency can be demonstrated through:
  - performing the competency being assessed as part of current employment OR
  - having consulted with an organisation providing relevant environmental monitoring, management or technology services about performing the competency being assessed within the last twelve months.

## Links

Companion Volume implementation guides are found in VETNet -  
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## **MSS402010 Manage the impact of change on own work**

### **Modification History**

Release 1. Supersedes and is equivalent to MSS402010A Manage the impact of change on own work

### **Application**

This unit of competency covers the skills and knowledge required by an individual to effectively manage the changes in their own work resulting from their organisation's implementation of competitive systems and practices.

This unit applies to an individual in an organisation implementing competitive systems and practices that affect the individual's own work. The unit includes the skills required to positively participate in ongoing and continuous change as it affects their work. The individual will be expected to deal with these changes as part of a team and to give feedback from their own perspective.

This unit requires the application of skills associated with problem solving, planning and organising and self-management for assessing and managing the impact of change on own work. This unit also requires the ability to seek information and feedback from team members on the impact of changes and suggested improvements.

No licensing, legislative or certification requirements apply to this unit at the time of publication.

### **Pre-requisite Unit**

Nil

### **Competency Field**

Competitive systems and practices

### **Unit Sector**

Not applicable

## Elements and Performance Criteria

Elements describe the essential outcomes.

Performance criteria describe the performance needed to demonstrate achievement of the element.

1	<b>Examine the impact of change on own work practices</b>	1.1	Identify competitive systems and practices relevant to changes in own work.
		1.2	Examine changes to work flow.
		1.3	Examine changes to equipment/process/physical environment.
		1.4	Examine changes to work relationship with team members and other teams.
		1.5	Examine changes to data collection needs.
		1.6	Examine changed work for impacts on health, safety and environment (HSE).
		1.7	Examine changes to quality requirements.
		1.8	Identify any additional individual skill needs.
		1.9	Identify other areas requiring assistance.
2	<b>Implement change</b>	2.1	Review changes which may have an adverse impact with team leader.
		2.2	Adopt changes to individual work practice.
		2.3	Seek assistance in gathering/processing data, as required.
		2.4	Implement the data collection/processing and take actions on resulting information in accordance with procedures.
		2.5	Seek assistance/training to meet needs caused by change.
3	<b>Implement continuous improvement</b>	3.1	Critically examine all changes.
		3.2	Identify impacts of changes both up and down the immediate value stream.

- 3.3 Identify areas for improvement.
- 3.4 Make recommendations for improvement in accordance with procedures.

## Foundation Skills

This section describes those required skills (language, literacy and numeracy) that are essential to performance.

Foundation skills essential to performance are explicit in the performance criteria of this unit of competency.

## Range of Conditions

This field allows for different work environments and conditions that may affect performance. Essential operating conditions that may be present (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) are included.

- Competitive systems and practices include one or more of:**
- lean operations
  - agile operations
  - preventative and predictive maintenance approaches
  - statistical process control systems, including six sigma and three sigma
  - Just in Time (JIT), kanban and other pull-related operations control systems
  - supply, value, and demand chain monitoring and analysis
  - 5S
  - continuous improvement (kaizen)
  - breakthrough improvement (kaizen blitz)
  - cause/effect diagrams
  - overall equipment effectiveness (OEE)
  - takt time
  - process mapping
  - problem solving
  - run charts
  - standard procedures
  - current reality tree.

- Impact of change**
- elements being undertaken individually or as part of a team

**may include one or more of:**

- seeking assistance from team leaders for areas outside the employee's range of responsibility and authority.

**Procedures (written, verbal, visual, computer based, etc.) include one or more of:**

- work instructions
- standard operating procedures (SOPs)
- safe work method statements
- formulas/recipes
- batch sheets
- temporary instructions
- any similar instructions provided for the smooth running of the plant.

**Gathering and monitoring performance data include one or more of:**

- manual gathering by individual employees through charts, tally sheets or keypad/board entry
- automatic collection through software, such as SCADA software, ERP systems, MRP and proprietary systems.

**Continuous improvement (kaizen) includes evaluation of one or more of:**

- time required
- resources used
- resultant quality
- other aspects relevant to the process.

**Stages where value stream actions may occur include one or more of:**

- sales outlet/representative
- information gathering, data analysis and research
- product design
- raw material sourcing
- intermediate processing
- final assembler/collation/preparation
- support services (e.g. accounting, finance and legal)
- storage and delivery to customer
- after market support.

## Unit Mapping Information

Release 1. Supersedes and is equivalent to MSS402010A Manage the impact of change on own work



## Links

Companion Volume implementation guides are found in VETNet -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=5b04f318-804f-4dc0-9463-c3fb9a3fe998>

# **Assessment Requirements for MSS402010 Manage the impact of change on own work**

## **Modification History**

Release 1. Supersedes and is equivalent to MSS402010A Manage the impact of change on own work

## **Performance Evidence**

Evidence required to demonstrate competence in this unit must be relevant to and satisfy the requirements of the elements and performance criteria and include the ability, for one (1) or more changes, to:

- identify competitive systems and practices used in their own workplace
- identify change and its impact on own work practices in relation to implementation of competitive systems and practices
- adopt change and seek any required assistance
- identify areas for improvement.

## **Knowledge Evidence**

Must provide evidence that demonstrates knowledge relevant to their job role sufficient to fulfil their job role under routine only supervision:

- features of common competitive systems and practices in use in own workplace
- sources of data on the process/plant
- methods of determining own skill needs
- health, safety and environment (HSE) principles relevant to own job
- change implementation contacts and procedures
- employee assistance mechanisms within organisation.

## **Assessment Conditions**

- The unit should be assessed holistically and the judgement of competence shall be based on a holistic assessment of the evidence.
- The collection of performance evidence:
  - should occur over a range of situations which include typical disruptions to normal, smooth operation of the workplace
  - will typically include a supervisor/third-party report focusing on consistent performance and problem recognition and solving. A supervisor/third-party report must be prepared by someone who has a direct, relevant, current relationship with the person being assessed and who is in a position to form a judgement on workplace performance relevant to the unit of competency
  - must include evidence of responding to change in own workplace

- will typically include the use of appropriate tools, equipment and safety gear requiring demonstration of preparation, operation, completion and responding to problems.
- Assessment should occur in operational workplace situations. Knowledge evidence may be collected concurrently with performance evidence (provided a record is kept) or through an independent process such as workbooks, written assessments or interviews (provided a record is kept).
- Assessment processes and techniques must be appropriate to the language, literacy and numeracy requirements of the work being performed and the needs of the candidate.
- Conditions for assessment must include access to all tools, equipment, materials and documentation required including, relevant workplace procedures, product and manufacturing specifications associated with this unit.
- Foundation skills are integral to competent performance of the unit and should not be assessed separately.
- Assessors must satisfy the assessor competency requirements that are in place at the time of the assessment as set by the VET regulator.
- The assessor must demonstrate both technical competency and currency.
- Technical competence can be demonstrated through:
  - relevant VET or other qualification/Statement of Attainment AND/OR
  - relevant workplace experience
- Currency can be demonstrated through:
  - performing the competency being assessed as part of current employment OR
  - having consulted with an organisation providing relevant environmental monitoring, management or technology services about performing the competency being assessed within the last twelve months.

## Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=5b04f318-804f-4dc0-9463-c3fb9a3fe998>

## **MSS402020 Apply quick changeover procedures**

### **Modification History**

Release 1. Supersedes and is equivalent to MSS402020A Apply quick changeover procedures

### **Application**

This unit of competency covers the skills and knowledge required to apply quick changeover procedures in an organisation implementing competitive systems and practices.

This unit applies to individuals in an organisation which is implementing competitive systems and practices and is pursuing quick changeover as one of its competitive operations tools. The unit can apply to quick changeovers of equipment, processes, batches or product type. It requires the application of skills associated with applying quick changeover procedures, including the planning and organising of own work, identifying problems and making suggestions for improvement of procedures.

Particular technical skills may also be required in some operations sectors and for some jobs. These skills should be gained from the Training Package relevant to the individual's industry and occupation.

This unit may not be applicable to a totally continuous operation producing only the one product, or simultaneous range of products. The unit is also not applicable to a maintenance/PVI shutdown as experienced by continuous process manufacturers.

No licensing, legislative or certification requirements apply to this unit at the time of publication.

### **Pre-requisite Unit**

Nil

### **Competency Field**

Competitive systems and practices

### **Unit Sector**

Not applicable

## Elements and Performance Criteria

Elements describe the essential outcomes.

Performance criteria describe the performance needed to demonstrate achievement of the element.

- |   |   |     |   |
|---|---|-----|---|
| 1 | <b>Prepare for changeover</b>               | 1.1 | Determine when changeover will be required.                         |
|   |   | 1.2 | Review plans and instructions for quick changeover.                 |
|   |   | 1.3 | Identify role of others in quick changeover.                        |
|   |   | 1.4 | Obtain all required tools/parts/materials for changeover.           |
|   |   | 1.5 | Organise process and tools/parts/materials ready for changeover.    |
|   |   |     |   |
| 2 | <b>Make quick changeover</b>                | 2.1 | Plan changeover according to quick changeover principles.           |
|   |   | 2.2 | Liaise and work with relevant people in quick changeover.           |
|   |   | 2.3 | Complete changeover according to procedures.                        |
|   |   | 2.4 | Check output meets specification.                                   |
|   |   | 2.5 | Debrief with all relevant stakeholders.                             |
|   |   | 2.6 | Note any steps which cause a problem.                               |
|   |   | 2.7 | Recommend changes to problematic steps.                             |
|   |   |     |   |
| 3 | <b>Improve work health and safety (WHS)</b> | 3.1 | Identify hazards to self or others in all steps/actions.            |
|   |   | 3.2 | Determine risks from each hazard.                                   |
|   |   | 3.3 | Identify actions which may be performed in a more ergonomic manner. |
|   |   | 3.4 | Recommend changes to improve WHS.                                   |

## Foundation Skills

This section describes those required skills (language, literacy and numeracy) that are essential to performance.

Foundation skills essential to performance are explicit in the performance criteria of this unit of competency.

## Range of Conditions

This field allows for different work environments and conditions that may affect performance. Essential operating conditions that may be present (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) are included.

- Competitive systems and practices include one or more of:**
- lean operations
  - agile operations
  - preventative and predictive maintenance approaches
  - monitoring and data gathering systems, such as Systems Control and Data Acquisition (SCADA) software, Enterprise Resource Planning (ERP) systems, Materials Resource Planning (MRP) and proprietary systems
  - statistical process control systems, including six sigma and three sigma
  - Just in Time (JIT), kanban and other pull-related operations control systems
  - supply, value, and demand chain monitoring and analysis
  - 5S
  - continuous improvement (kaizen)
  - breakthrough improvement (kaizen blitz)
  - cause/effect diagrams
  - overall equipment effectiveness (OEE)
  - takt time
  - process mapping
  - problem solving
  - run charts
  - standard procedures
  - current reality tree.
- Changeover may include one or more of:**
- an exchange of equipment (often dies or tools (traditional))
  - a change between products/batches or between campaigns or processes. It may be any quantum change to produce a different product or undertake a different process.

**Set-up can be divided into two types:**

- internal set-up (requires work to stop, work that can be done only when the machine or process is not actively engaged in production, computers etc. need to be reset and restarted)
- external set-up (work can continue during the changeover, work can be done concurrently with the machine or process performing production duties).

**Set-up time includes:**

- the work time required to change over a machine or process from one item or operation to the next item or operation.

**Procedures (written, verbal, visual, computer based, etc.) include one or more of:**

- work instructions
- standard operating procedures (SOPs)
- safe work method statements
- formulas/recipes
- batch sheets
- temporary instructions
- any similar instructions provided for the smooth running of the plant.

## Unit Mapping Information

Release 1. Supersedes and is equivalent to MSS402020A Apply quick changeover procedures

## Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=5b04f318-804f-4dc0-9463-c3fb9a3fe998>

# Assessment Requirements for MSS402020 Apply quick changeover procedures

## Modification History

Release 1. Supersedes and is equivalent to MSS402020A Apply quick changeover procedures

## Performance Evidence

Evidence required to demonstrate competence in this unit must be relevant to and satisfy the requirements of the elements and performance criteria and include the ability, for three (3) or more quick changeovers, to:

- identify the scope and equipment to be used in a quick changeover implemented in their own workplace
- plan and complete changeover
- identify problems in quick changeovers
- contribute suggestions for improvement.

## Knowledge Evidence

- Must provide evidence that demonstrates knowledge relevant to their job role sufficient to fulfil their job role under routine only supervision and to solve routine problems, including knowledge of:
- principles of quick changeover, including:
  - setting of target time for changeover
  - conversion of internal set-up time to external set-up time, where appropriate
  - simplification of changeover steps
  - monitoring and continuous improvement of changeovers
- purpose and requirements of changeover
- minimisation of changeover waste (e.g. scrap and energy)
- quality requirements for products and purposes
- relevant operational procedures
- health, safety and environment (HSE) principles relevant to own job.

## Assessment Conditions

- The unit should be assessed holistically and the judgement of competence shall be based on a holistic assessment of the evidence.
- The collection of performance evidence:
  - should occur over a range of situations which include typical disruptions to normal, smooth operation of the workplace



- will typically include a supervisor/third-party report focussing on consistent performance and problem recognition and solving. A supervisor/third-party report must be prepared by someone who has a direct, relevant, current relationship with the person being assessed and who is in a position to form a judgement on workplace performance relevant to the unit of competency
- must include actual quick changeovers, the use of appropriate tools, equipment and safety gear requiring demonstration of preparation, operation, completion and responding to problems.
- Assessment should occur in operational workplace situations. Knowledge evidence may be collected concurrently with performance evidence (provided a record is kept) or through an independent process such as workbooks, written assessments or interviews (provided a record is kept).
- Assessment processes and techniques must be appropriate to the language, literacy and numeracy requirements of the work being performed and the needs of the candidate.
- Conditions for assessment must include access to all tools, equipment, materials and documentation required, including relevant workplace procedures, product and manufacturing specifications associated with this unit.
- Foundation skills are integral to competent performance of the unit and should not be assessed separately.
- Assessors must satisfy the assessor competency requirements that are in place at the time of the assessment as set by the VET regulator.
- The assessor must demonstrate both technical competency and currency.
- Technical competence can be demonstrated through:
  - relevant VET or other qualification/Statement of Attainment AND/OR
  - relevant workplace experience
- Currency can be demonstrated through:
  - performing the competency being assessed as part of current employment OR
  - having consulted with an organisation providing relevant environmental monitoring, management or technology services about performing the competency being assessed within the last twelve months.

## Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=5b04f318-804f-4dc0-9463-c3fb9a3fe998>

# **MSS402021 Apply Just in Time procedures**

## **Modification History**

Release 1. Supersedes and is equivalent to MSS402021A Apply Just in Time procedures

## **Application**

This unit of competency covers the skills and knowledge required to work in an organisation implementing and/or utilising Just in Time (JIT) procedures.

This unit applies to an individual working in an organisation following JIT who will need to follow procedures which are specific to JIT, such as the controlled flow of material (e.g. the use of kanban and elimination of waste). This will involve the individual in the application of the pull system to their job and the authorisation of product/material flows in accordance with procedures and their level of authority.

This unit requires the application of skills associated with planning and organising and self-management to deliver product on demand using necessary tools, equipment and processes to meet production requirements. The unit also requires an ability to recognise and act on problems that may interfere with meeting production demands.

No licensing, legislative or certification requirements apply to this unit at the time of publication.

## **Pre-requisite Unit**

Nil

## **Competency Field**

Competitive systems and practices

## **Unit Sector**

Not applicable

## **Elements and Performance Criteria**

Elements describe the essential outcomes.

Performance criteria describe the performance needed to demonstrate achievement of the element.

1	<b>Respond to indicator of demand</b>	1.1	Identify pull of product through work role.
		1.2	Recognise indicator of flow authorisation.
		1.3	Identify production or service required.
2	<b>Make products or deliver service to demand</b>	2.1	Make product or deliver service as required by ticket.
		2.2	Identify any factors likely to prevent demand being satisfied in own work or work of the team.
		2.3	Take action in accordance with procedures.
3	<b>Update demand information as required</b>	3.1	Record information on ticket to procedures, as required.
		3.2	Facilitate operation of flow authorisation as part of work.
4	<b>Recommend improvements</b>	4.1	Examine the operation of the JIT system as it relates to own work.
		4.2	Identify areas for improvement.
		4.3	Identify any additional personal skill requirements to implement JIT procedures.
		4.4	Recommend improvements.

## Foundation Skills

This section describes those required skills (language, literacy and numeracy) that are essential to performance.

Foundation skills essential to performance are explicit in the performance criteria of this unit of competency.

## Range of Conditions

This field allows for different work environments and conditions that may affect

performance. Essential operating conditions that may be present (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) are included.

- Competitive systems and practices include one or more of:**
- lean operations
  - agile operations
  - preventative and predictive maintenance approaches
  - statistical process control systems, including six sigma and three sigma
  - Just in Time (JIT), kanban and other pull-related operations control systems
  - supply, value, and demand chain monitoring and analysis
  - 5S
  - continuous improvement (kaizen)
  - breakthrough improvement (kaizen blitz)
  - cause/effect diagrams
  - overall equipment effectiveness (OEE)
  - takt time
  - process mapping
  - problem solving
  - run charts
  - standard procedures
  - current reality tree.
- JIT requires availability:**
- precisely when the service, product or operation is to be produced or undertaken
  - in the right quantity and at the right quality.
- Product includes one or more of:**
- a physical product
  - a supporting utility service, such as water, gas and power
  - some other service (e.g. cranes and forklifts).
- Indicator of demand includes one or more of:**
- kanban bin, ticket or similar
  - some other indicator of demand pull which authorises production or movement of an item (in some plants, this may also include authorisation using SCADA software).
- Procedures (written, verbal, visual, computer based, etc.) include one or**
- work instructions
  - standard operating procedures (SOPs)
  - safe work method statements
  - formulas/recipes

**more of:**

- batch sheets
- temporary instructions
- any similar instructions provided for the smooth running of the plant.

## Unit Mapping Information

Release 1. Supersedes and is equivalent to MSS402021A Apply Just in Time procedures

## Links

Companion Volume implementation guides are found in VETNet -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=5b04f318-804f-4dc0-9463-c3fb9a3fe998>

# Assessment Requirements for MSS402021 Apply Just in Time procedures

## Modification History

Release 1. Supersedes and is equivalent to MSS402021A Apply Just in Time procedures

## Performance Evidence

Evidence required to demonstrate competence in this unit must be relevant to and satisfy the requirements of the elements and performance criteria and include the ability, for one (1) or more JIT procedures, to:

- identify the indicators of demand and the flow authorisation system in their own workplace
- relate products and services supplied by suppliers and customers to the flow authorisation system
- interpret received indicators of demand correctly for quantity, quality and time of delivery
- contribute suggestions for improvement.

## Knowledge Evidence

Must provide evidence that demonstrates knowledge relevant to their job role sufficient to fulfil their job role under routine only supervision, including:

- JIT methods relevant to own job
- relevant indicator of demands for own job
- own role in flow authorisation
- faults and other issues that may threaten the JIT delivery of own product or service
- procedures for recommending improvements.

## Assessment Conditions

- The unit should be assessed holistically and the judgement of competence shall be based on a holistic assessment of the evidence.
- The collection of performance evidence:
  - should occur over a range of situations which include typical disruptions to normal, smooth operation of the workplace
  - will typically include a supervisor/third-party report focussing on consistent performance and problem recognition and solving. A supervisor/third-party report must be prepared by someone who has a direct, relevant, current relationship with the person being assessed and who is in a position to form a judgement on workplace performance relevant to the unit of competency
  - must include JIT procedures in own workplace

- will typically include the use of appropriate tools, equipment and safety gear requiring demonstration of preparation, operation, completion and responding to problems.
- Assessment should occur in operational workplace situations. Knowledge evidence may be collected concurrently with performance evidence (provided a record is kept) or through an independent process such as workbooks, written assessments or interviews (provided a record is kept).
- Assessment processes and techniques must be appropriate to the language, literacy and numeracy requirements of the work being performed and the needs of the candidate.
- Conditions for assessment must include access to all tools, equipment, materials and documentation required, including relevant workplace procedures, product and manufacturing specifications associated with this unit.
- Foundation skills are integral to competent performance of the unit and should not be assessed separately.
- Assessors must satisfy the assessor competency requirements that are in place at the time of the assessment as set by the VET regulator.
- The assessor must demonstrate both technical competency and currency.
- Technical competence can be demonstrated through:
  - relevant VET or other qualification/Statement of Attainment AND/OR
  - relevant workplace experience
- Currency can be demonstrated through:
  - performing the competency being assessed as part of current employment OR
  - having consulted with an organisation providing relevant environmental monitoring, management or technology services about performing the competency being assessed within the last twelve months.

## Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=5b04f318-804f-4dc0-9463-c3fb9a3fe998>

## **MSS402030 Apply cost factors to work practices**

### **Modification History**

Release 1. Supersedes and is equivalent to MSS402030A Apply cost factors to work practices

### **Application**

This unit of competency covers the skills and knowledge required by an individual to identify cost components in their work and to be able to determine, in general terms, the cost impacts of alternative actions.

This unit applies to an individual who is required to contribute to, and be involved in, the assessment of cost factors in their work. This may be done individually or in a team environment.

The unit covers the skills to be able to assess the relative costs of the alternatives and use this as one of the key factors in making decisions. Decisions are made within the scope of the employee's authority and according to procedures. Typical decisions include those that contribute to the efficient organisation of own work and the improvement of production time and cycle times.

This unit requires the application of skills associated with problem solving to identify cost factors and cost implications of own work and self-management to apply cost-effective practices.

No licensing, legislative or certification requirements apply to this unit at the time of publication.

### **Pre-requisite Unit**

Nil

### **Competency Field**

Competitive systems and practices

### **Unit Sector**

Not applicable



## Elements and Performance Criteria

Elements describe the essential outcomes.

Performance criteria describe the performance needed to demonstrate achievement of the element.

1	<b>Identify the major cost components of product or process in own work area</b>	1.1	Identify cost components in the product or process in own work area.
		1.2	Recognise the impact of current or alternative actions on costs.
2	<b>Identify constraints to cost-efficiency</b>	2.1	Identify required production/process rate and major costs.
		2.2	Identify costs factors under individual or team control.
		2.3	Relate identified costs factors to impact on overall cost of production/process.
		2.4	Identify cost factors that are a constraint to cost-efficiency in own work area.
3	<b>Apply cost-efficient work practices</b>	3.1	Identify and explain to relevant people the implications of possible actions/changes to improve cost-efficiency in simple financial terms.
		3.2	Identify non-financial implications of proposed changes in discussion with relevant people.
		3.3	Select actions which minimise overall costs.
		3.4	Monitor actions to ensure cost-efficiency in own work area is maintained.

## Foundation Skills

This section describes those required skills (language, literacy and numeracy) that are essential to performance.

Foundation skills essential to performance are explicit in the performance criteria of this unit of competency.

## Range of Conditions

This field allows for different work environments and conditions that may affect performance. Essential operating conditions that may be present (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) are included.

- |  |   |
|--|---|
| <b>Competitive systems and practices include one or more of:</b> | <ul style="list-style-type: none"><li>• lean operations</li><li>• agile operations</li><li>• preventative and predictive maintenance approaches</li><li>• statistical process control systems, including six sigma and three sigma</li><li>• Just in Time (JIT), kanban and other pull-related operations control systems</li><li>• supply, value, and demand chain monitoring and analysis</li><li>• 5S</li><li>• continuous improvement (kaizen)</li><li>• breakthrough improvement (kaizen blitz)</li><li>• cause/effect diagrams</li><li>• overall equipment effectiveness (OEE)</li><li>• takt time</li><li>• process mapping</li><li>• problem solving</li><li>• run charts</li><li>• standard procedures</li><li>• current reality tree.</li></ul> |
| <b>Cost components include all of:</b>                           | <ul style="list-style-type: none"><li>• fixed and variable costs, such as power/energy, materials, plant and equipment, production or process time, including impact of salary and wages</li><li>• office expenses, such as telephone and internet</li><li>• government taxes and charges.</li></ul>  |
| <b>Process includes one or more of:</b>                          | <ul style="list-style-type: none"><li>• production</li><li>• maintenance</li><li>• logistics</li><li>• office</li><li>• other support processes in an organisation.</li></ul>   |
| <b>Overall cost includes all of:</b>                             | <ul style="list-style-type: none"><li>• the assessment of negative and positive financial implications</li><li>• negative long-term issues, such as work health and safety (WHS), environmental and regulatory issues.</li></ul>  |

## Unit Mapping Information

Release 1. Supersedes and is equivalent to MSS402030A Apply cost factors to work practices

## Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=5b04f318-804f-4dc0-9463-c3fb9a3fe998>

# Assessment Requirements for MSS402030 Apply cost factors to work practices

## Modification History

Release 1. Supersedes and is equivalent to MSS402030A Apply cost factors to work practices

## Performance Evidence

Evidence required to demonstrate competence in this unit must be relevant to and satisfy the requirements of the elements and performance criteria and include the ability, on one (1) or more occasions to use cost factors in making a decision related to their workplace, and to:

- identify major cost components
- distinguish components which they can control from those they can't
- make decisions which minimise overall cost and explain these to stakeholders.

## Knowledge Evidence

Must provide evidence that demonstrates knowledge relevant to their job role sufficient to fulfil their job role under routine only supervision, including:

- concepts of expense, income and capital
- fixed and variable cost components relevant to own work:
  - power/energy
  - materials, plant and equipment
  - production or process time, including impact of salary and wages
  - office expenses
  - government taxes and charges
- relative impact of each of these
- financial and non-financial impacts of cost reductions
- the difference between internally and externally controlled costs
- difference between overhead, labour and consumables.

## Assessment Conditions

- The unit should be assessed holistically and the judgement of competence shall be based on a holistic assessment of the evidence.
- The collection of performance evidence is best done from a report and/or folio of evidence drawn from:
  - a single project which provides sufficient evidence of the requirements of all the elements and performance criteria
  - multiple smaller projects which together provide sufficient evidence of the requirements of all the elements and performance criteria.

- A third-party report, or similar, may be needed to testify to the work done by the individual, particularly when the project has been done as part of a project team.
- Assessment will use a real project in an operational workplace.
- Knowledge evidence may be collected concurrently with performance evidence or through an independent process such as workbooks, written assessments or interviews (provided a record is kept).
- Assessment processes and techniques must be appropriate to the language, literacy and numeracy requirements of the work being performed and the needs of the candidate.
- Conditions for assessment must include access to all tools, equipment, materials and documentation required, including relevant workplace procedures, product and manufacturing specifications associated with this unit.
- Foundation skills are integral to competent performance of the unit and should not be assessed separately.
- Assessors must satisfy the assessor competency requirements that are in place at the time of the assessment as set by the VET regulator.
- The assessor must demonstrate both technical competency and currency.
- Technical competence can be demonstrated through:
  - relevant VET or other qualification/Statement of Attainment AND/OR
  - relevant workplace experience
- Currency can be demonstrated through:
  - performing the competency being assessed as part of current employment OR
  - having consulted with an organisation providing relevant environmental monitoring, management or technology services about performing the competency being assessed within the last twelve months.

## Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=5b04f318-804f-4dc0-9463-c3fb9a3fe998>

# MSS402031 Interpret product costs in terms of customer requirements

## Modification History

Release 1. Supersedes and is equivalent to MSS402031A Interpret product costs in terms of customer requirements

## Application

This unit of competency covers the skills and knowledge required by an individual to be able to identify the major cost components of either products or processes, the basic relationship of these to customer benefit, and use this to help minimise waste (defined as anything not delivering value as defined by the customer). It has a different focus to *MSS402030 Apply cost factors to work practices*, which focuses on costs in isolation, whereas this unit regards all costs not directly leading to customer benefit as waste.

This unit applies to an individual who uses their understanding of the customer's requirements of the product or process being undertaken as the basis for investigating work processes to identify waste sources and then takes action relevant to their level of competency and authority to reduce this waste. It requires an understanding of both the cost factors in the products they make and also the benefits which the customer derives from the product.

This competency may be performed individually or in a team-based environment.

This unit requires the application of skills associated with analysis and problem solving to identify waste and determine ways to minimise waste. This unit requires initiative and enterprise and application of learning in concepts of waste and waste minimisation.

No licensing, legislative or certification requirements apply to this unit at the time of publication.

## Pre-requisite Unit

Nil

## Competency Field

Competitive systems and practices

## Unit Sector

Not applicable

## Elements and Performance Criteria

Elements describe the essential outcomes.

Performance criteria describe the performance needed to demonstrate achievement of the element.

1	<b>Identify cost components deriving from customer benefit and other costs</b>	1.1	Identify customer features/benefits in product or process being undertaken.
		1.2	Identify cost components which deliver customer features/benefits and those which do not.
2	<b>Compare required performance of product or process steps with actual performance</b>	2.1	Identify performance required to meet customer needs in own work and that of team.
		2.2	Identify actual performance.
		2.3	Compare cost components of products or process with current customer-related targets.
		2.4	Separate costs components into those that contribute to customer features/benefits and those that do not.
		2.5	Determine non-contributing cost components which are under control of the individual or team.
3	<b>Minimise waste</b>	3.1	Recommend changes to eliminate or reduce waste.
		3.2	Adopt changes which minimises waste.
		3.3	Monitor effect of changes to ensure gains are made against customer features/benefits.

## Foundation Skills

This section describes those required skills (language, literacy and numeracy) that are essential to performance.

Foundation skills essential to performance are explicit in the performance criteria of this unit of competency.

## Range of Conditions

This field allows for different work environments and conditions that may affect performance. Essential operating conditions that may be present (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) are included.

- |  |   |
|--|---|
| <b>Competitive systems and practices include one or more of:</b> | <ul style="list-style-type: none"><li>• lean operations</li><li>• agile operations</li><li>• preventative and predictive maintenance approaches</li><li>• statistical process control systems, including six sigma and three sigma</li><li>• Just In Time (JIT), kanban and other pull-related operations control systems</li><li>• supply, value, and demand chain monitoring and analysis</li><li>• 5S</li><li>• continuous improvement (kaizen)</li><li>• breakthrough improvement (kaizen blitz)</li><li>• cause/effect diagrams</li><li>• overall equipment effectiveness (OEE)</li><li>• takt time</li><li>• process mapping</li><li>• problem solving</li><li>• run charts</li><li>• standard procedures</li><li>• current reality tree.</li></ul> |
| <b>Customer features/benefits include all of:</b>                | <ul style="list-style-type: none"><li>• characteristics of the product or service which the customer perceives as meeting their need</li><li>• characteristics of the product or service which the customer perceives as adding value</li><li>• financial or features items which the customer perceives and a benefit.</li></ul>   |
| <b>Performance includes all of:</b>                              | <ul style="list-style-type: none"><li>• takt - the allowable time to produce one product at the rate and quality customers are demanding it</li><li>• the rate of output of the plant compared to the takt time.</li></ul>  |
| <b>Customer-related</b>  | <ul style="list-style-type: none"><li>• internally set financial targets that contribute to meeting customer</li></ul>  |



<b>targets includes all of:</b>	<ul style="list-style-type: none"><li>features/benefits</li><li>operational targets that contribute to meeting customer features/benefits</li><li>other targets that contribute to meeting customer features/benefits.</li></ul>
<b>Contributing cost components include all of:</b>	<ul style="list-style-type: none"><li>costs that make a direct contribution to customer features/benefits.</li><li>costs that need to be incurred (although they may be minimised) in order to gain the customer feature/benefit.</li></ul>
<b>Non-contributing cost components include all of:</b>	<ul style="list-style-type: none"><li>costs that do not contribute to customer features/benefits</li><li>costs that must be maintained, such as regulatory compliance costs which do not contribute to customer features and so should be minimised</li><li>costs that neither contribute to customer features/benefits nor must be maintained (muda) and so should be eliminated if possible.</li></ul>
<b>Muda (waste) includes all of:</b>	<ul style="list-style-type: none"><li>any activity which does not contribute to customer or organisation benefit/features in the product</li><li>activities which do not yield any benefit to the organisation or any benefit to the organisation's customers</li><li>excess production and early production</li><li>delays</li><li>movement and transport</li><li>poor process design</li><li>inventory</li><li>inefficient performance of a process</li><li>making defective items.</li></ul>

## Unit Mapping Information

Release 1. Supersedes and is equivalent to MSS402031A Interpret product costs in terms of customer requirements

## Links

Companion Volume implementation guides are found in VETNet -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=5b04f318-804f-4dc0-9463-c3fb9a3fe998>

## **Assessment Requirements for MSS402031 Interpret product costs in terms of customer requirements**

### **Modification History**

Release 1. Supersedes and is equivalent to MSS402031A Interpret product costs in terms of customer requirements

### **Performance Evidence**

Evidence required to demonstrate competence in this unit must be relevant to and satisfy the requirements of the elements and performance criteria and include the ability, on one (1) or more occasions to recommend muda reduction related to their workplace, and to:

- identify and distinguish between cost components leading to customer benefit or otherwise
- take steps to minimise muda in their workplace.

### **Knowledge Evidence**

Must provide evidence that demonstrates knowledge relevant to their job role sufficient to fulfil their job role under routine only supervision, including:

- contributions towards customer perceived benefit
- concepts of expense, income and capital
- fixed and variable cost components relevant to own work:
  - power/energy
  - materials, plant and equipment
  - production or process time, including impact of salary and wages
  - office expenses
  - government taxes and charges
- relative impact of each of these
- financial and non-financial impacts of cost reductions
- the difference between internally and externally controlled costs
- difference between overhead, labour and consumables.

### **Assessment Conditions**

- The unit should be assessed holistically and the judgement of competence shall be based on a holistic assessment of the evidence.
- The collection of performance evidence is best done from a report and/or folio of evidence drawn from:
  - a single project which provides sufficient evidence of the requirements of all the elements and performance criteria

- multiple smaller projects which together provide sufficient evidence of the requirements of all the elements and performance criteria.
- A third-party report, or similar, may be needed to testify to the work done by the individual, particularly when the project has been done as part of a project team.
- Assessment should use a real project in an operational workplace.
- Knowledge evidence may be collected concurrently with performance evidence or through an independent process such as workbooks, written assessments or interviews (provided a record is kept).
- Assessment processes and techniques must be appropriate to the language, literacy and numeracy requirements of the work being performed and the needs of the candidate.
- Conditions for assessment must include access to all tools, equipment, materials and documentation required, including relevant workplace procedures, product and manufacturing specifications associated with this unit.
- Foundation skills are integral to competent performance of the unit and should not be assessed separately.
- Assessors must satisfy the assessor competency requirements that are in place at the time of the assessment as set by the VET regulator.
- The assessor must demonstrate both technical competency and currency.
- Technical competence can be demonstrated through:
  - relevant VET or other qualification/Statement of Attainment AND/OR
  - relevant workplace experience
- Currency can be demonstrated through:
  - performing the competency being assessed as part of current employment OR
  - having consulted with an organisation providing relevant environmental monitoring, management or technology services about performing the competency being assessed within the last twelve months.

## Links

Companion Volume implementation guides are found in VETNet -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=5b04f318-804f-4dc0-9463-c3fb9a3fe998>

## **MSS402040 Apply 5S procedures**

### **Modification History**

Release 1. Supersedes and is equivalent to MSS402040A Apply 5S procedures

### **Application**

This unit of competency covers the skills and knowledge required by an individual to apply 5S procedures to their own job and work area. The unit assumes the individual has a particular job and an allocated work area and that processes in the work area are known by the individual.

This unit applies to an individual in an organisation who works in an operational position as part of production, maintenance, logistics, etc. The unit can also apply to individuals in other organisations who have a discrete role and responsibility for individually managed processes.

This unit applies where an organisation has decided to embark on a competitive systems and practices strategy and as part of this has adopted the philosophy of 5S as one of the tools to improve performance. The employee needs to apply 5S to their job and work area and maintain the housekeeping and other standards set by 5S.

This unit requires the application of skills associated with planning and organising, problem solving and self-management, in order to identify and implement 5S housekeeping practices.

No licensing, legislative or certification requirements apply to this unit at the time of publication.

### **Pre-requisite Unit**

Nil

### **Competency Field**

Competitive systems and practices

### **Unit Sector**

Not applicable

## Elements and Performance Criteria

Elements describe the essential outcomes.

Performance criteria describe the performance needed to demonstrate achievement of the element.

- |   |  |     |  |
|---|--|-----|--|
| 1 | <b>Sort needed items from unneeded</b> | 1.1 | Identify all items in the work area.   |
|   |  | 1.2 | Sort items to achieve deliverables and value expected by downstream and final customers. |
|   |  | 1.3 | Sort items required for regulatory or other required purposes.                           |
|   |  | 1.4 | Place any non-essential item in an appropriate place other than the workplace.           |
|   |  | 1.5 | Regularly check that only essential items are in the work area.                          |
|   |  |     |  |
| 2 | <b>Set the workplace in order</b>      | 2.1 | Identify the best location for each essential item.                                      |
|   |  | 2.2 | Place each essential item in its assigned location.                                      |
|   |  | 2.3 | After use immediately return each essential item to its assigned location.               |
|   |  | 2.4 | Regularly check that each essential item is in its assigned location.                    |
|   |  |     |  |
| 3 | <b>Shine the work area</b>             | 3.1 | Keep the work area clean and tidy at all times.  |
|   |  | 3.2 | Conduct regular housekeeping activities during shift.                                    |
|   |  | 3.3 | Ensure the work area is neat, clean and tidy at both beginning and end of shift.         |
|   |  |     |  |
| 4 | <b>Standardise activities</b>          | 4.1 | Follow procedures.   |
|   |  | 4.2 | Follow checklists for activities, where available.                                       |
|   |  | 4.3 | Keep the work area to specified standard.  |

- |   |                              |     |   |
|---|------------------------------|-----|---|
| 5 | <b>Sustain the 5S system</b> | 5.1 | Clean up after completion of job and before commencing next job or end of shift.                        |
|   |                              | 5.2 | Identify situations where compliance to standards is unlikely and take actions specified in procedures. |
|   |                              | 5.3 | Inspect work area regularly for compliance to specified standard.                                       |
|   |                              | 5.4 | Recommend improvements to lift the level of compliance in the workplace.                                |
|   |                              | 5.5 | Clean up after completion of job and before commencing next job or end of shift.                        |

## Foundation Skills

This section describes those required skills (language, literacy and numeracy) that are essential to performance.

Foundation skills essential to performance are explicit in the performance criteria of this unit of competency.

## Range of Conditions

This field allows for different work environments and conditions that may affect performance. Essential operating conditions that may be present (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) are included.

- |  |  |
|--|--|
| <b>Competitive systems and practices include one or more of:</b> | <ul style="list-style-type: none"> <li>• lean operations</li> <li>• agile operations</li> <li>• preventative and predictive maintenance approaches</li> <li>• statistical process control systems, including six sigma and three sigma</li> <li>• Just in Time (JIT), kanban and other pull-related operations control systems</li> <li>• supply, value, and demand chain monitoring and analysis</li> <li>• 5S</li> <li>• continuous improvement (kaizen)</li> <li>• breakthrough improvement (kaizen blitz)</li> <li>• cause/effect diagrams</li> <li>• overall equipment effectiveness (OEE)</li> </ul> |
|--|--|

- takt time
  - process mapping
  - problem solving
  - run charts
  - standard procedures
  - current reality tree.
- 5S includes all of:**
- sort
  - set in order
  - shine
  - standardise
  - sustain.
- Sort includes all of:**
- separating necessary from unnecessary items (equipment and supplies)
  - keeping only what is absolutely necessary for the work processes that comprise the job
  - disposing of (or relocating) all other items.
- Set in order includes all of:**
- assigning required equipment and materials appropriate locations in the work area
  - consideration of frequency of use, ergonomics and work health and safety (WHS)
  - provision of facilities to maintain the locations.
- Shine includes one or more of:**
- keeping the work area clean at all times which should be carried out to a regular daily schedule against allowed time, usually at the end of the day or of a particular process
  - keeping work area organised
  - noting any signs of wear, damage, leakage, safety risks or other issues that require immediate attention.
- Best location includes one or more of:**
- changes to the layout of furniture
  - arrangement of equipment
  - provision of services
  - location of personnel.
- Standardising includes one or**
- activities that help maintain the order and the housekeeping standards



- more of:**
- using procedures and checklists developed from a procedure.
- Sustain includes one or more of:**
- making sure that daily activities are completed every day regardless of circumstance
  - cleaning up after a job
  - undertaking inspections, including:
    - informal inspections carried out often, at least weekly
    - formal inspections carried out at least monthly
  - generating continuous improvement actions from daily activities
  - following up specific actions to generate continuous improvement.
- Items in work area include one or more of:**
- tools
  - jigs/fixtures
  - materials/components
  - plant and equipment
  - manuals
  - personal items (e.g. bags, lunch boxes and posters)
  - safety equipment and personal protective equipment (PPE)
  - other items which happen to be in the work area.
- Procedures (written, verbal, visual, computer based, etc.) include one or more of:**
- work instructions
  - standard operating procedures (SOPs)
  - safe work method statements
  - formulas/recipes
  - batch sheets
  - temporary instructions
  - any similar instructions provided for the smooth running of the plant.

## Unit Mapping Information

Release 1. Supersedes and is equivalent to MSS402040A Apply 5S procedures

## Links

Companion Volume implementation guides are found in VETNet -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=5b04f318-804f-4dc0-9463-c3fb9a3fe998>



# Assessment Requirements for MSS402040 Apply 5S procedures

## Modification History

Release 1. Supersedes and is equivalent to MSS402040A Apply 5S procedures

## Performance Evidence

Evidence required to demonstrate competence in this unit must be relevant to and satisfy the requirements of the elements and performance criteria and include the ability, in one (1) or more allocated areas, to:

- implement and sustain 5S in own workplace
- identify own tasks and responsibilities
- contribute suggestions for improvement.

## Knowledge Evidence

Must provide evidence that demonstrates knowledge relevant to their job role sufficient to fulfil their job role under routine only supervision, including:

- purpose of 5S in the workplace
- meaning and application of 5S steps to own workplace and job
- principles of efficient workplace organisation
- identifying waste (muda)
- procedures for recommending improvements.

## Assessment Conditions

- The unit should be assessed holistically and the judgement of competence shall be based on a holistic assessment of the evidence.
- The collection of performance evidence:
  - should occur over a range of situations which include typical disruptions to normal, smooth operation of the workplace
  - will typically include a supervisor/third-party report focussing on consistent performance and problem recognition and solving. A supervisor/third-party report must be prepared by someone who has a direct, relevant, current relationship with the person being assessed and who is in a position to form a judgement on workplace performance relevant to the unit of competency
  - must include the application of 5S procedures in a work area where 5S has not previously been undertaken, or, demonstration of sustaining 5S principles in a work area that has already undergone prior 5S procedures
  - will typically include the use of appropriate tools, equipment and safety gear requiring demonstration of preparation, operation, completion and responding to problems.

- Assessment should occur in operational workplace situations. Knowledge evidence may be collected concurrently with performance evidence (provided a record is kept) or through an independent process such as workbooks, written assessments or interviews (provided a record is kept).
- Assessment processes and techniques must be appropriate to the language, literacy and numeracy requirements of the work being performed and the needs of the candidate.
- Conditions for assessment must include access to all tools, equipment, materials and documentation required, including relevant workplace procedures, product and manufacturing specifications associated with this unit.
- Foundation skills are integral to competent performance of the unit and should not be assessed separately.
- Assessors must satisfy the assessor competency requirements that are in place at the time of the assessment as set by the VET regulator.
- The assessor must demonstrate both technical competency and currency.
- Technical competence can be demonstrated through:
  - relevant VET or other qualification/Statement of Attainment AND/OR
  - relevant workplace experience
- Currency can be demonstrated through:
  - performing the competency being assessed as part of current employment OR
  - having consulted with an organisation providing relevant environmental monitoring, management or technology services about performing the competency being assessed within the last twelve months.

## Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=5b04f318-804f-4dc0-9463-c3fb9a3fe998>

## **MSS402050 Monitor process capability**

### **Modification History**

Release 1. Supersedes and is equivalent to MSS402050A Monitor process capability

### **Application**

This unit of competency covers the skills and knowledge required for gathering of data and the interpretation of simple information to determine the compliance of the process and the taking of action as defined by the procedures where the information reveals the process is out of control parameters.

This unit applies to an individual in an organisation adopting specific competitive systems and practices, usually either six sigma or statistical process control/three sigma, as a means of determining and improving the capability of their process to customer requirements. The individual is involved in collecting specified data and performing specified manipulations to the data (typically by plotting on a chart or by entering into a nominated computer program). The information is typically presented to team members in terms of graphs/charts which they are expected to interpret at a basic level and then take action in accordance with procedures to restore the process to being under control parameters.

This unit requires the application of skills associated with entering and monitoring operational data and information and requires initiative, enterprise and problem solving in identifying production variations and making improvement recommendations.

No licensing, legislative or certification requirements apply to this unit at the time of publication.

### **Pre-requisite Unit**

Nil

### **Competency Field**

Competitive systems and practices

### **Unit Sector**

Not applicable

## Elements and Performance Criteria

Elements describe the essential outcomes.

Performance criteria describe the performance needed to demonstrate achievement of the element.

1	<b>Collect and process data</b>	1.1	Take specified measurements/readings/observations, as required.
		1.2	Enter data in log, computer or other record.
		1.3	Manipulate and/or chart data as required by procedures.
2	<b>Identify variations that are not random and take action</b>	2.1	Examine chart and/or reliability information.
		2.2	Distinguish between random variations and those with an identifiable cause.
		2.3	Take action specified in procedures when a variation with an identifiable cause occurs.
3	<b>Assist in process improvement</b>	3.1	Collect data for process capability improvement trials.
		3.2	Make recommendations for improvement.
		3.3	Implement revised capability monitoring procedures.

## Foundation Skills

This section describes those required skills (language, literacy and numeracy) that are essential to performance.

Foundation skills essential to performance are explicit in the performance criteria of this unit of competency.

## Range of Conditions

This field allows for different work environments and conditions that may affect performance. Essential operating conditions that may be present (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) are included.

**Competitive systems** • lean operations

**and practices  
include one or more  
of:**

- agile operations
- preventative and predictive maintenance approaches
- statistical process control systems, including six sigma and three sigma
- Just in Time (JIT), kanban and other pull-related operations control systems
- supply, value, and demand chain monitoring and analysis
- 5S
- continuous improvement (kaizen)
- breakthrough improvement (kaizen blitz)
- cause/effect diagrams
- overall equipment effectiveness (OEE)
- takt time
- process mapping
- problem solving
- run charts
- standard procedures
- current reality tree.

**Procedures  
(written, verbal,  
visual, computer  
based, etc.) include  
one or any  
combination of:**

- work instructions
- standard operating procedures (SOPs)
- safe work method statements
- formulas/recipes
- batch sheets
- temporary instructions
- any similar instructions provided for the smooth running of the plant.

**Process capability  
includes one or  
more of:**

- the capability of the process to deliver to customer defined requirements
- process stability against standardised practices and documentation to eliminate variation against customer requirements
- statistical capability to deliver product within a specified range
- a statistical technique to determine the range within which a product might be expected to fall.

## Unit Mapping Information

Release 1. Supersedes and is equivalent to MSS402050A Monitor process capability

## Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=5b04f318-804f-4dc0-9463-c3fb9a3fe998>



# Assessment Requirements for MSS402050 Monitor process capability

## Modification History

Release 1. Supersedes and is equivalent to MSS402050A Monitor process capability

## Performance Evidence

Evidence required to demonstrate competence in this unit must be relevant to and satisfy the requirements of the elements and performance criteria and include the ability to assist in one (1) or more process improvements and to routinely:

- collect and process data
- identify non-random variations and take the action specified in the procedures
- make recommendations for improvements.

## Knowledge Evidence

Must provide evidence that demonstrates knowledge relevant to their job role sufficient to fulfil their job role under routine only supervision, including:

- defects and defective product
- variation and the related statistical distribution
- control charting (or similar) methods
- analysis of information to identify trends or other non-random results
- determination of identifiable causes from variation information
- process capability determination from variation data.

## Assessment Conditions

- The unit should be assessed holistically and the judgement of competence shall be based on a holistic assessment of the evidence.
- The collection of performance evidence:
  - should occur over a range of situations which include typical disruptions to normal, smooth operation of the workplace
  - will typically include a supervisor/third-party report focussing on consistent performance and problem recognition and solving. A supervisor/third-party report must be prepared by someone who has a direct, relevant, current relationship with the person being assessed and who is in a position to form a judgement on workplace performance relevant to the unit of competency
  - must include routine collection of data and identification of non-random variation in own workplace
  - must include participation in a process capability improvement project

- will typically include the use of appropriate statistical tools, aids and apps.
- Assessment should occur in operational workplace situations.
- Knowledge evidence may be collected concurrently with performance evidence (provided a record is kept) or through an independent process such as workbooks, written assessments or interviews (provided a record is kept).
- Assessment processes and techniques must be appropriate to the language, literacy and numeracy requirements of the work being performed and the needs of the candidate.
- Conditions for assessment must include access to all tools, equipment, materials and documentation required, including relevant workplace procedures, product and manufacturing specifications associated with this unit.
- Foundation skills are integral to competent performance of the unit and should not be assessed separately.
- Assessors must satisfy the assessor competency requirements that are in place at the time of the assessment as set by the VET regulator.
- The assessor must demonstrate both technical competency and currency.
- Technical competence can be demonstrated through:
  - relevant VET or other qualification/Statement of Attainment AND/OR
  - relevant workplace experience
- Currency can be demonstrated through:
  - performing the competency being assessed as part of current employment OR
  - having consulted with an organisation providing relevant environmental monitoring, management or technology services about performing the competency being assessed within the last twelve months.

## Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=5b04f318-804f-4dc0-9463-c3fb9a3fe998>

## **MSS402051 Apply quality standards**

### **Modification History**

Release 1. Supersedes and is equivalent to MSS402051A Apply quality standards

### **Application**

This unit of competency covers the skills and knowledge required to apply quality standards to work operations in an organisation. The unit is designed to complement competitive systems and practices units.

This unit applies to an individual who is expected to take responsibility for the quality of their own work, and to take actions specified in the procedures and within the scope of their job and authority to ensure that quality standards are met.

This unit requires the application of skills associated with interpreting and applying workplace standards and identifying and addressing problems that interfere with quality outcomes. The unit requires initiative, enterprise and self-management to ensure quality standards are achieved.

No licensing, legislative or certification requirements apply to this unit at the time of publication.

### **Pre-requisite Unit**

Nil

### **Competency Field**

Competitive systems and practices

### **Unit Sector**

Not applicable

### **Elements and Performance Criteria**

Elements describe the essential outcomes.

Performance criteria describe the performance needed to demonstrate achievement of the element.

- |   |  |  |  |
|---|--|--|--|
| 1 | <b>Assess own work</b>   | <div>1.1</div> <div>1.2</div> <div>1.3</div> <div>1.4</div>                | <div>Continuously check completed work against workplace standards relevant to the operation being undertaken.</div> <div>Demonstrate an understanding of how the work activities and completed work relate to the next production process or processes and to the final products or services concerned.</div> <div>Identify and isolate faulty components, products or processes.</div> <div>Record and/or report faults and any identified causes to the supervisor concerned, where required, in accordance with workplace procedures.</div>  |
| 2 | <b>Assess quality of received components, parts or materials</b> | <div>2.1</div> <div>2.2</div> <div>2.3</div> <div>2.4</div> <div>2.5</div> | <div>Continuously measure/check received components, parts, materials, information, service or final products against workplace standards and specifications for conformance.</div> <div>Demonstrate an understanding of how the received components, parts or materials, information or service relate to the current operation and how they contribute to the final quality of the product or service.</div> <div>Identify and isolate faulty components, parts, materials or information that relate to the operator's work.</div> <div>Record and/or report faults and any identified causes in accordance with workplace procedures.</div> <div>Identify causes of any identified faults and take corrective action as specified in workplace procedures.</div> |
| 3 | <b>Investigate causes of quality deviations</b>                  | <div>3.1</div> <div>3.2</div> <div>3.3</div>                               | <div>Record information on quality and other indicators of process performance.</div> <div>Investigate and report causes of deviations from specified quality standards for components.</div> <div>Recommend suitable preventative action based on workplace quality standards and the identified causes of deviations from specified quality standards of materials.</div>  |

## Foundation Skills

This section describes those required skills (language, literacy and numeracy) that are essential to performance.

Foundation skills essential to performance are explicit in the performance criteria of this unit of competency.

## Range of Conditions

This field allows for different work environments and conditions that may affect performance. Essential operating conditions that may be present (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) are included.

### **Competitive systems and practices include one or more of:**

- lean operations
- agile operations
- preventative and predictive maintenance approaches
- statistical process control systems, including six sigma and three sigma
- Just in Time (JIT), kanban and other pull-related operations control systems
- supply, value, and demand chain monitoring and analysis
- 5S
- continuous improvement (kaizen)
- breakthrough improvement (kaizen blitz)
- cause/effect diagrams
- overall equipment effectiveness (OEE)
- takt time
- process mapping
- problem solving
- run charts
- standard procedures
- current reality tree.

### **Quality parameters include one or more of:**

- finish
- size
- durability
- product or process variations
- materials
- alignment
- colour
- damage and imperfections

	<ul style="list-style-type: none"><li>• time</li><li>• is complete/contains all required information/data</li><li>• complies to template</li><li>• uses the correct styles and formats.</li></ul>
<b>Quality checks include one or more of:</b>	<ul style="list-style-type: none"><li>• visual inspection</li><li>• physical measurements</li><li>• chemical tests</li><li>• checks against patterns, templates, styles, formats and guides</li><li>• processing time.</li></ul>
<b>Materials include one or more of:</b>	<ul style="list-style-type: none"><li>• physical raw materials</li><li>• orders, forms and other documentation</li><li>• services required for undertaking an operation (e.g. power, water, compressed air and fuel).</li></ul>
<b>Procedures (written, verbal, visual, computer based, etc) include one or more of:</b>	<ul style="list-style-type: none"><li>• work instructions</li><li>• standard operating procedures (SOPs)</li><li>• safe work method statements</li><li>• formulas/recipes</li><li>• batch sheets</li><li>• temporary instructions</li><li>• any similar instructions provided for the smooth running of the plant.</li></ul>
<b>Indicators of production performance include one or more of:</b>	<ul style="list-style-type: none"><li>• number of items/production rate</li><li>• delays and causes of delays (where known)</li><li>• other information as specified in the procedures.</li></ul>
<b>Data entry/recording includes one or more of:</b>	<ul style="list-style-type: none"><li>• keyboard</li><li>• written (including ticks or signs)</li><li>• verbal.</li></ul>
<b>Sources of information/documents include one or more of:</b>	<ul style="list-style-type: none"><li>• quality and Australian Standards and procedures</li><li>• work instructions, patterns, designs and recipes</li><li>• organisation work procedures</li><li>• manufacturer instructions for materials and equipment</li><li>• organisational or external personnel</li></ul>

- customer requirements.
- Investigate and report requires following set procedures which include one or more of:**
- verbal instructions
  - documented procedures
  - other quality procedures as implemented within an organisation or work environment.
- Workplace context includes one or more of:**
- work organisation procedures and practices relating to the manufacture and quality outcomes for products
  - conditions of service, legislation and industrial agreements, including:
    - workplace agreements and awards
    - federal or state/territory legislation
    - standard work practice.
- Reporting/communication includes one or more of:**
- verbal and written communication in accordance with organisational policies and procedures
  - oral, written or visual communication, including simple data.
- Being responsible for the maintenance of own work quality includes one or more of**
- contributing to the quality improvement of team or section output, where necessary, in accordance with workplace procedures
  - following safety, environmental, housekeeping and quality procedures as specified by materials/machine/equipment manufacturers, regulatory authorities and the organisation.
- Applicable regulations and legislation include one or more of**
- work health and safety (WHS) legislation relevant to workplace activities
  - workers compensation legislation.

## Unit Mapping Information

Release 1. Supersedes and is equivalent to MSS402051A Apply quality standards

## Links

Companion Volume implementation guides are found in VETNet -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=5b04f318-804f-4dc0-9463-c3fb9a3fe998>



# Assessment Requirements for MSS402051 Apply quality standards

## Modification History

Release 1. Supersedes and is equivalent to MSS402051A Apply quality standards

## Performance Evidence

Evidence required to demonstrate competence in this unit must be relevant to and satisfy the requirements of the elements and performance criteria and include the ability, for one (1) or more products/processes, to:

- check and measure relevant quality parameters
- interpret results of quality checks in terms of specifications, patterns and work standards
- take required action where standards of materials, component parts, final product or work processes are found to be unacceptable
- maintain accurate records.

## Knowledge Evidence

Must provide evidence that demonstrates knowledge relevant to their job role sufficient to fulfil their job role under routine only supervision, including:

- relevant quality standards, policies and procedures
- relevant production processes, materials and products
- relevant measurement techniques and quality checking procedures
- reporting procedures.

## Assessment Conditions

- The unit should be assessed holistically and the judgement of competence shall be based on a holistic assessment of the evidence.
- The collection of performance evidence:
  - should occur over a range of situations which include typical disruptions to normal, smooth operation of the workplace
  - will typically include a supervisor/third-party report focussing on consistent performance and problem recognition and solving. A supervisor/third-party report must be prepared by someone who has a direct, relevant, current relationship with the person being assessed and who is in a position to form a judgement on workplace performance relevant to the unit of competency
  - must include the application of quality standards to own workplace
  - will typically include the use of appropriate tools, equipment and safety gear requiring demonstration of preparation, operation, completion and responding to problems.

- Assessment should occur in operational workplace situations. Knowledge evidence may be collected concurrently with performance evidence (provided a record is kept) or through an independent process such as workbooks, written assessments or interviews (provided a record is kept).
- Assessment processes and techniques must be appropriate to the language, literacy and numeracy requirements of the work being performed and the needs of the candidate.
- Conditions for assessment must include access to all tools, equipment, materials and documentation required, including relevant workplace procedures, product and manufacturing specifications associated with this unit.
- Foundation skills are integral to competent performance of the unit and should not be assessed separately.
- Assessors must satisfy the assessor competency requirements that are in place at the time of the assessment as set by the VET regulator.
- The assessor must demonstrate both technical competency and currency.
- Technical competence can be demonstrated through:
  - relevant VET or other qualification/Statement of Attainment AND/OR
  - relevant workplace experience
- Currency can be demonstrated through:
  - performing the competency being assessed as part of current employment OR
  - having consulted with an organisation providing relevant environmental monitoring, management or technology services about performing the competency being assessed within the last twelve months.

## Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=5b04f318-804f-4dc0-9463-c3fb9a3fe998>

# MSS402060 Use planning software systems in operations

## Modification History

Release 1. Supersedes and is equivalent to MSS402060A Use planning software systems in operations

## Application

This unit of competency covers the skills and knowledge required to access planning software (often known as Enterprise Resource Planning (ERP), Materials Resource Planning (MRP and MRPII), and often by a proprietary name, to make routine business decisions required of the person as a regular part of their job.

This unit applies to an individual in an organisation using a planning software system and who must interface with that system. The unit applies to both accessing information from the planning software system and using it as an aid to decision making. This unit requires the application of communication, planning, and problem solving associated with using planning software in own work.

No licensing, legislative or certification requirements apply to this unit at the time of publication.

## Pre-requisite Unit

Nil

## Competency Field

Competitive systems and practices

## Unit Sector

Not applicable

## Elements and Performance Criteria

Elements describe the essential outcomes.

Performance criteria describe the performance needed to demonstrate achievement of the element.

- |                        |  |
|------------------------|--|
| 1 <b>Use interface</b> | 1.1      Identify terminals relevant to own workstation and functions. |
|------------------------|--|

- |   |  |     |  |
|---|--|-----|--|
|   |  | 1.2 | Use keyboards, track ball/mouse and monitor and/or other peripherals to access system.                 |
|   |  | 1.3 | Navigate through system and screens to find program menu and data relevant to own work.                |
|   |  | 1.4 | Identify and input information on own work processes at required frequency and to required detail.     |
|   |  | 1.5 | Access message section and acknowledge messages.   |
|   |  | 1.6 | Identify problems and make suggestions for improvements to relevance of planning software to own work. |
| 2 | <b>Access information</b>                        | 2.1 | Identify work processes that require information from planning software system.                        |
|   |  | 2.2 | Obtain relevant data and information on current operations from the planning software system.          |
|   |  | 2.3 | Identify the status of items in the value stream.  |
|   |  | 2.4 | Access historical data and information.  |
|   |  | 2.5 | Interpret information and identify and prioritise any actions required in response to information.     |
| 3 | <b>Take action in accordance with procedures</b> | 3.1 | Take action in response to information obtained from planning software.                                |
|   |  | 3.2 | Follow up as appropriate to ensure anticipated results have occurred.                                  |
|   |  | 3.3 | Record adjustments and variations.   |
|   |  | 3.4 | Identify any learning needs to use planning software and seek appropriate support.                     |

## Foundation Skills

This section describes those required skills (language, literacy and numeracy) that are essential to performance.

Foundation skills essential to performance are explicit in the performance criteria of this unit of competency.

## Range of Conditions

This field allows for different work environments and conditions that may affect performance. Essential operating conditions that may be present (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) are included.

**Competitive systems and practices include one or more of:**

- lean operations
- agile operations
- preventative and predictive maintenance approaches
- statistical process control systems, including six sigma and three sigma
- Just in Time (JIT), kanban and other pull-related operations control systems
- supply, value, and demand chain monitoring and analysis
- 5S
- continuous improvement (kaizen)
- breakthrough improvement (kaizen blitz)
- cause/effect diagrams
- overall equipment effectiveness (OEE)
- takt time
- process mapping
- problem solving
- run charts
- standard procedures
- current reality tree.

**Relevant data and information includes one or more of**

- technical and other drawings
- standard operating procedures (SOPs) and other work instructions
- production schedules, including historical data
- orders and order tracking information
- stock control
- contact lists
- work health and safety (WHS) information.

**Stages where value stream actions may occur include one or**

- sales outlet/representative
- information gathering, data analysis and research
- product design

**more of:**

- raw material sourcing
- intermediate processing
- final assembler/collation/preparation
- support services (e.g. accounting, finance and legal)
- storage and delivery to customer
- after market support.

**Items in the value stream include one or more of:**

- physical elements of the production system, such as sites, workstations, equipment and material, including stock, work in progress and finished products
- information needed to meet customer requirements, such as designs, drawings, work instructions, SOPs, standards, material lists and pricing
- information not directly related to current customer requirements but required by the organisation.

**Procedures (written, verbal, visual, computer based, etc.) include one or more of:**

- work instructions
- SOPs
- safe work method statements
- formulas/recipes
- batch sheets
- temporary instructions
- any similar instructions provided for the smooth running of the plant.

## Unit Mapping Information

Release 1. Supersedes and is equivalent to MSS402060A Use planning software systems in operations

## Links

Companion Volume implementation guides are found in VETNet -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=5b04f318-804f-4dc0-9463-c3fb9a3fe998>

# **Assessment Requirements for MSS402060 Use planning software systems in operations**

## **Modification History**

Release 1. Supersedes and is equivalent to MSS402060A Use planning software systems in operations

## **Performance Evidence**

Evidence required to demonstrate competence in this unit must be relevant to and satisfy the requirements of the elements and performance criteria and include the ability, for three (3) or more uses resulting in action from the information obtained, to:

- identify the scope and relevance of planning software system to own work
- enter and retrieve data, including normal performance and variations
- use planning software system to assist in own work
- contribute suggestions for improvement.

## **Knowledge Evidence**

Must provide evidence that demonstrates knowledge relevant to their job role sufficient to fulfil their job role under routine only supervision, including:

- planning software system and operation, including:
  - terminal locations and types
  - security and access arrangements
  - range of information held in planning software relevant to own work
  - data collection methods for operations in work area
  - assistance arrangements for users of planning software
  - business activities exercised by/through the planning software system
- procedures for recommending improvements.

## **Assessment Conditions**

- The unit should be assessed holistically and the judgement of competence shall be based on a holistic assessment of the evidence.
- The collection of performance evidence:
  - should occur over a range of situations which include typical disruptions to normal, smooth operation of the workplace

- will typically include a supervisor/third-party report focussing on consistent performance and problem recognition and solving. A supervisor/third-party report must be prepared by someone who has a direct, relevant, current relationship with the person being assessed and who is in a position to form a judgement on workplace performance relevant to the unit of competency
- must include the use of actual planning software in own workplace
- will typically include the use of appropriate tools, equipment and safety gear requiring demonstration of preparation, operation, completion and responding to problems.
- Assessment should occur in operational workplace situations. Knowledge evidence may be collected concurrently with performance evidence (provided a record is kept) or through an independent process such as workbooks, written assessments or interviews (provided a record is kept).
- Assessment processes and techniques must be appropriate to the language, literacy and numeracy requirements of the work being performed and the needs of the candidate.
- Conditions for assessment must include access to all tools, equipment, materials and documentation required, including relevant workplace procedures, product and manufacturing specifications associated with this unit.
- Foundation skills are integral to competent performance of the unit and should not be assessed separately.
- Assessors must satisfy the assessor competency requirements that are in place at the time of the assessment as set by the VET regulator.
- The assessor must demonstrate both technical competency and currency.
- Technical competence can be demonstrated through:
  - relevant VET or other qualification/Statement of Attainment AND/OR
  - relevant workplace experience
- Currency can be demonstrated through:
  - performing the competency being assessed as part of current employment OR
  - having consulted with an organisation providing relevant environmental monitoring, management or technology services about performing the competency being assessed within the last twelve months.

## Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=5b04f318-804f-4dc0-9463-c3fb9a3fe998>



# MSS402061 Use SCADA systems in operations

## Modification History

Release 1. Supersedes and is equivalent to MSS402061A Use SCADA systems in operations

## Application

This unit of competency covers the skills and knowledge required by an individual to interact with a System Control and Data Acquisition (SCADA) system as part of their job.

This unit applies to an individual in an organisation using a SCADA system and the individual must interface with that system. The individual will need to access this system as part of their routine and take actions based on the information they obtain from the SCADA system in accordance with procedures.

This unit requires the application of skills associated with using communication tools and technology for management of own work, planning and problem solving.

No licensing, legislative or certification requirements apply to this unit at the time of publication.

## Pre-requisite Unit

Nil

## Competency Field

Competitive systems and practices

## Unit Sector

Not applicable

## Elements and Performance Criteria

Elements describe the essential outcomes.

Performance criteria describe the performance needed to demonstrate achievement of the element.

- |                                 |  |
|---------------------------------|--|
| 1 <b>Use operator interface</b> | 1.1      Identify SCADA terminals relevant to own workstation and functions. |
|---------------------------------|--|

- |   |  |     |  |
|---|--|-----|--|
|   |  | 1.2 | Use keyboards, track ball, monitor and/or stand-alone controllers to access/interrogate system.                    |
|   |  | 1.3 | Use correct level of access and find all relevant screens and information.   |
|   |  | 1.4 | Access message section and acknowledge messages.   |
|   |  | 1.5 | Input and output information correctly according to program and organisation requirements.                         |
| 2 | <b>Use information</b>                                     | 2.1 | Obtain data and information from SCADA, as required, including process, supply and product chain data.             |
|   |  | 2.2 | Interpret data and information as required by own job.   |
|   |  | 2.3 | Find and use relevant historical data and information.   |
|   |  | 2.4 | Use manufacturer manuals or specifications, as required, to expand knowledge of SCADA system relevant to own work. |
|   |  | 2.5 | Determine and prioritise required actions.   |
| 3 | <b>Make required changes in accordance with procedures</b> | 3.1 | Adjust production/process in response to SCADA information.  |
|   |  | 3.2 | Record adjustments and variations to specifications/schedules and report to appropriate personnel.                 |
|   |  | 3.3 | Seek feedback and information on adjustments to further improve procedures, where required.                        |

## Foundation Skills

This section describes those required skills (language, literacy and numeracy) that are essential to performance.

Foundation skills essential to performance are explicit in the performance criteria of this unit of competency.

## Range of Conditions

This field allows for different work environments and conditions that may affect performance. Essential operating conditions that may be present (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) are included.

**Competitive systems and practices include one or more of:**

- lean operations
- agile operations
- preventative and predictive maintenance approaches
- statistical process control systems, including six sigma and three sigma
- Just in Time (JIT), kanban and other pull-related operations control systems
- supply, value, and demand chain monitoring and analysis
- 5S
- continuous improvement (kaizen)
- breakthrough improvement (kaizen blitz)
- cause/effect diagrams
- overall equipment effectiveness (OEE)
- takt time
- process mapping
- problem solving
- run charts
- standard procedures
- current reality tree.

**Procedures (written, verbal, visual, computer based, etc.) include one or more of:**

- work instructions
- standard operating procedures (SOPs)
- safe work method statements
- formulas/recipes
- batch sheets
- temporary instructions
- any similar instructions provided for the smooth running of the plant.

## Unit Mapping Information

Release 1. Supersedes and is equivalent to MSS402061A Use SCADA systems in operations

## Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=5b04f318-804f-4dc0-9463-c3fb9a3fe998>

# Assessment Requirements for MSS402061 Use SCADA systems in operations

## Modification History

Release 1. Supersedes and is equivalent to MSS402061A Use SCADA systems in operations

## Performance Evidence

Evidence required to demonstrate competence in this unit must be relevant to and satisfy the requirements of the elements and performance criteria and include the ability, for three (3) or more adjustments to production/process utilising SCADA information, to:

- identify scope and relevance of SCADA system to own work
- access correct levels of SCADA system
- enter and retrieve data, including normal performance and variations
- use SCADA system to assist in own work.

## Knowledge Evidence

Must provide evidence that demonstrates knowledge relevant to their job role sufficient to fulfil their job role under routine only supervision, including:

- hierarchy of SCADA system and operation
- available information from, and controls exercised by, SCADA system.

## Assessment Conditions

- The unit should be assessed holistically and the judgement of competence shall be based on a holistic assessment of the evidence.
- The collection of performance evidence:
  - should occur over a range of situations which include typical disruptions to normal, smooth operation of the workplace
  - will typically include a supervisor/third-party report focussing on consistent performance and problem recognition and solving. A supervisor/third-party report must be prepared by someone who has a direct, relevant, current relationship with the person being assessed and who is in a position to form a judgement on workplace performance relevant to the unit of competency
  - must include use of SCADA systems in own workplace
  - will typically include the use of appropriate tools, equipment and safety gear requiring demonstration of preparation, operation, completion and responding to problems.
- Assessment should occur in operational workplace situations.
- Knowledge evidence may be collected concurrently with performance evidence (provided a record is kept) or through an independent process such as workbooks, written assessments or interviews (provided a record is kept).

- Assessment processes and techniques must be appropriate to the language, literacy and numeracy requirements of the work being performed and the needs of the candidate.
- Conditions for assessment must include access to all tools, equipment, materials and documentation required, including relevant workplace procedures, product and manufacturing specifications associated with this unit.
- Foundation skills are integral to competent performance of the unit and should not be assessed separately.
- Assessors must satisfy the assessor competency requirements that are in place at the time of the assessment as set by the VET regulator.
- The assessor must demonstrate both technical competency and currency.
- Technical competence can be demonstrated through:
  - relevant VET or other qualification/Statement of Attainment AND/OR
  - relevant workplace experience
- Currency can be demonstrated through:
  - performing the competency being assessed as part of current employment OR
  - having consulted with an organisation providing relevant environmental monitoring, management or technology services about performing the competency being assessed within the last twelve months.

## Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=5b04f318-804f-4dc0-9463-c3fb9a3fe998>

# MSS402080 Undertake root cause analysis

## Modification History

Release 1. Supersedes and is equivalent to MSS402080A Undertake root cause analysis

## Application

This unit of competency covers the skills and knowledge required to undertake root cause analysis (RCA). This unit also covers the competencies needed by operators to contribute to an advanced maintenance strategy using RCA coupled with diagrams and charts.

This unit applies to individuals working in an organisation that is applying competitive systems and practices strategies. The unit applies to the formal problem solving to root cause that the individual must undertake in their own work area or where the individual contributes to problem solving to root cause as part of a team.

This unit requires an ability to seek and apply information from a variety of sources in order to inform RCAs. Initiative and enterprise is also required to identify quick fix and permanent solutions to problems.

No licensing, legislative or certification requirements apply to this unit at the time of publication.

## Pre-requisite Unit

Nil

## Competency Field

Competitive systems and practices

## Unit Sector

Not applicable

## Elements and Performance Criteria

Elements describe the essential outcomes.

Performance criteria describe the performance needed to demonstrate achievement of the element.

- |   |                                   |     |   |
|---|-----------------------------------|-----|---|
| 1 | <b>Recognise problems</b>         | 1.1 | Identify features or occurrences indicative of a problem.                                       |
|   |                                   | 1.2 | Use appropriate tools, techniques and charts to define the problem.                             |
| 2 | <b>Implement quick fix</b>        | 2.1 | Recommend a quick fix within the scope of competency and authority.                             |
|   |                                   | 2.2 | Use technology or processes relevant to the problem to implement quick fix.                     |
| 3 | <b>Determine root cause</b>       | 3.1 | Identify a range of possible causes.  |
|   |                                   | 3.2 | Gather data and other information to eliminate or confirm possible causes.                      |
|   |                                   | 3.3 | Use available data and information to link causes and effects.                                  |
|   |                                   | 3.4 | Seek assistance to obtain additional information if problem is beyond own competency/authority. |
|   |                                   | 3.5 | Identify root cause.  |
| 4 | <b>Develop permanent solution</b> | 4.1 | Identify a range of methods to eliminate the root cause or break the cause tree.                |
|   |                                   | 4.2 | Select the most appropriate solution.   |
|   |                                   | 4.3 | Liaise with relevant people.  |
|   |                                   | 4.4 | Recommend or implement solution within the limits of competency and authority.                  |
|   |                                   | 4.5 | Monitor impact of solution and make further recommendations, as required.                       |

## Foundation Skills

This section describes those required skills (language, literacy and numeracy) that are essential to performance.



Foundation skills essential to performance are explicit in the performance criteria of this unit of competency.

## Range of Conditions

This field allows for different work environments and conditions that may affect performance. Essential operating conditions that may be present (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) are included.

**Competitive systems and practices include one or more of:**

- lean operations
- agile operations
- preventative and predictive maintenance approaches
- statistical process control systems, including six sigma and three sigma
- Just in Time (JIT), kanban and other pull-related operations control systems
- supply, value, and demand chain monitoring and analysis
- 5S
- continuous improvement (kaizen)
- breakthrough improvement (kaizen blitz)
- cause/effect diagrams
- overall equipment effectiveness (OEE)
- takt time
- process mapping
- problem solving
- run charts
- standard procedures
- current reality tree.

**Problems include one or more of:**

- variation to normal plant or equipment operation
- unplanned or non-conforming process or operations outcomes
- out of specification products
- excess scrap
- accidents and emergencies
- regulatory breaches
- customer returns and complaints
- reduction or loss of sales.

**Techniques/charts include one or more**

- control charts
- Pareto charts

**of:**

- run charts
- flow charts
- cause and effect diagrams
- tree diagrams
- 5 Whys analysis
- organisation specified/mandated methods.

## **Unit Mapping Information**

Release 1. Supersedes and is equivalent to MSS402080A Undertake root cause analysis

## **Links**

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=5b04f318-804f-4dc0-9463-c3fb9a3fe998>

# Assessment Requirements for MSS402080 Undertake root cause analysis

## Modification History

Release 1. Supersedes and is equivalent to MSS402080A Undertake root cause analysis

## Performance Evidence

Evidence required to demonstrate competence in this unit must be relevant to and satisfy the requirements of the elements and performance criteria and include the ability, for one (1) or more problems, to:

- undertake problem identification
- use appropriate processes to achieve root cause identification
- recommend solutions and implementation procedures to problems within own area
- monitor implementation of solutions.

## Knowledge Evidence

Must provide evidence that demonstrates knowledge relevant to their job role sufficient to fulfil their job role under routine only supervision, including:

- methodology of root cause analysis, including:
  - difference between quick fix and root cause elimination
  - breaking of causal tree
- indicators of problems and variances to normal operation
- relevant analysis tools (e.g. Pareto charts, 5 Whys).

## Assessment Conditions

- The unit should be assessed holistically and the judgement of competence shall be based on a holistic assessment of the evidence.
- The collection of performance evidence:
  - should occur over a range of situations which include typical disruptions to normal, smooth operation of the workplace
  - will typically include a supervisor/third-party report focussing on consistent performance and problem recognition and solving. A supervisor/third-party report must be prepared by someone who has a direct, relevant, current relationship with the person being assessed and who is in a position to form a judgement on workplace performance relevant to the unit of competency
  - must include a root cause analysis in own workplace
  - will typically include the use of appropriate tools, equipment and safety gear requiring demonstration of preparation, operation, completion and responding to problems.

- Assessment should occur in operational workplace situations.
- Knowledge evidence may be collected concurrently with performance evidence (provided a record is kept) or through an independent process such as workbooks, written assessments or interviews (provided a record is kept).
- Assessment processes and techniques must be appropriate to the language, literacy and numeracy requirements of the work being performed and the needs of the candidate.
- Conditions for assessment must include access to all tools, equipment, materials and documentation required, including relevant workplace procedures, product and manufacturing specifications associated with this unit.
- Foundation skills are integral to competent performance of the unit and should not be assessed separately.
- Assessors must satisfy the assessor competency requirements that are in place at the time of the assessment as set by the VET regulator.
- The assessor must demonstrate both technical competency and currency.
- Technical competence can be demonstrated through:
  - relevant VET or other qualification/Statement of Attainment AND/OR
  - relevant workplace experience
- Currency can be demonstrated through:
  - performing the competency being assessed as part of current employment OR
  - having consulted with an organisation providing relevant environmental monitoring, management or technology services about performing the competency being assessed within the last twelve months.

## Links

Companion Volume implementation guides are found in VETNet -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=5b04f318-804f-4dc0-9463-c3fb9a3fe998>

# **MSS402081 Contribute to the application of a proactive maintenance strategy**

## **Modification History**

Release 1. Supersedes and is equivalent to MSS402081A Contribute to the application of a proactive maintenance strategy

## **Application**

This unit of competency covers the skills and knowledge required by an individual to make a positive contribution to proactive maintenance strategies, including actions that contribute to equipment uptime and overall equipment effectiveness (OEE). This unit applies in an organisation which is following a predictive, preventative or reliability-centred maintenance strategy and which requires commitment from all employees. The employee should 'own' their equipment/plant and take an active part in the implementation of the strategy within the scope of their authority.

This unit requires the application of skills associated with accessing and maintaining equipment/plant documentation. It also requires problem solving, initiative and enterprise to continually monitor and maintain operational performance of equipment/plant used in work role.

No licensing, legislative or certification requirements apply to this unit at the time of publication.

## **Pre-requisite Unit**

Nil

## **Competency Field**

Competitive systems and practices

## **Unit Sector**

Not applicable

## **Elements and Performance Criteria**

Elements describe the      Performance criteria describe the performance needed to

essential outcomes.

demonstrate achievement of the element.

- |   |   |     |  |
|---|---|-----|--|
| 1 | <b>Maintain equipment/plant</b>   | 1.1 | Keep equipment/plant within area of responsibility clean.  |
|   |   | 1.2 | Ensure equipment/plant is serviced and adjusted, as required, in accordance with procedures and own level of responsibility. |
|   |   | 1.3 | Access manufacturer manuals and specifications, where required, to expand knowledge on the maintenance of equipment/plant.   |
|   |   | 1.4 | Access and update documentation on equipment/plant operation and maintenance in accordance with workplace procedures.        |
| 2 | <b>Monitor operation of equipment/plant</b>                             | 2.1 | Regularly check key conditions of the equipment/plant as defined in workplace procedures.                                    |
|   |   | 2.2 | Regularly check equipment/plant OEE.   |
|   |   | 2.3 | Note any deviation from conditions specified in procedures.  |
| 3 | <b>Identify deviations and patterns</b>                                 | 3.1 | Identify any previous occurrences of a deviation.  |
|   |   | 3.2 | Identify any related deviations which have occurred.   |
|   |   | 3.3 | Identify any unusual occurrence which may be related to a deviation.   |
| 4 | <b>Take action appropriate to competency and authority on deviation</b> | 4.1 | Liaise with relevant people regarding the deviation and the solution.  |
|   |   | 4.2 | Implement solution and/or assist with the implementation of the solution, as appropriate.                                    |

## Foundation Skills

This section describes those required skills (language, literacy and numeracy) that are essential to performance.

Foundation skills essential to performance are explicit in the performance criteria of this unit of competency.

## Range of Conditions

This field allows for different work environments and conditions that may affect performance. Essential operating conditions that may be present (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) are included.

**Competitive systems and practices include one or more of:**

- lean operations
- agile operations
- preventative and predictive maintenance approaches
- statistical process control systems, including six sigma and three sigma
- Just in Time (JIT), kanban and other pull-related operations control systems
- supply, value, and demand chain monitoring and analysis
- 5S
- continuous improvement (kaizen)
- breakthrough improvement (kaizen blitz)
- cause/effect diagrams
- OEE
- takt time
- process mapping
- problem solving
- run charts
- standard procedures
- current reality tree.

**Uptime includes one or more of:**

- the overall availability of the plant
- the inverse of downtime or the unavailability of the plant
- the fraction, percentage or time the plant is available for production.

**Procedures (written, verbal, visual, computer based, etc.) include one or any combination of:**

- work instructions
- standard operating procedures (SOPs)
- safe work method statements
- formulas/recipes
- batch sheets
- temporary instructions

- any similar instructions provided for the smooth running of the plant.

## Unit Mapping Information

Release 1. Supersedes and is equivalent to MSS402081A Contribute to the application of a proactive maintenance strategy

## Links

Companion Volume implementation guides are found in VETNet -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=5b04f318-804f-4dc0-9463-c3fb9a3fe998>



# Assessment Requirements for MSS402081 Contribute to the application of a proactive maintenance strategy

## Modification History

Release 1. Supersedes and is equivalent to MSS402081A Contribute to the application of a proactive maintenance strategy

## Performance Evidence

Evidence required to demonstrate competence in this unit must be relevant to and satisfy the requirements of the elements and performance criteria, and include the ability to monitor equipment/plant in one (1) or more areas, and to:

- maintain the equipment/plant to the required standard
- identify deviations in OEE requiring action
- take the action required by the procedures.

## Knowledge Evidence

Must provide evidence that demonstrates knowledge relevant to their job role sufficient to fulfil their job role under routine only supervision, including:

- interpretation of trends or other non-random variation
- determining OEE (availability x performance x quality rate) and uptime metrics
- principles of operation of plant/equipment and factors likely to cause deviations in performance
- identifying deviations requiring action
- appropriate actions for dealing with deviations.

## Assessment Conditions

- The unit should be assessed holistically and the judgement of competence shall be based on a holistic assessment of the evidence.
- The collection of performance evidence:
  - should occur over a range of situations which include typical disruptions to normal, smooth operation of the workplace
  - will typically include a supervisor/third-party report focussing on consistent performance and problem recognition and solving. A supervisor/third-party report must be prepared by someone who has a direct, relevant, current relationship with the person being assessed and who is in a position to form a judgement on workplace performance relevant to the unit of competency
  - must include the application of proactive maintenance in own workplace
  - will typically include the use of appropriate tools, equipment and safety gear requiring demonstration of preparation, operation, completion and responding to problems.

- Assessment should occur in operational workplace situations.
- Knowledge evidence may be collected concurrently with performance evidence (provided a record is kept) or through an independent process such as workbooks, written assessments or interviews (provided a record is kept).
- Assessment processes and techniques must be appropriate to the language, literacy and numeracy requirements of the work being performed and the needs of the candidate.
- Conditions for assessment must include access to all tools, equipment, materials and documentation required, including relevant workplace procedures, product and manufacturing specifications associated with this unit.
- Foundation skills are integral to competent performance of the unit and should not be assessed separately.
- Assessors must satisfy the assessor competency requirements that are in place at the time of the assessment as set by the VET regulator.
- The assessor must demonstrate both technical competency and currency.
- Technical competence can be demonstrated through:
  - relevant VET or other qualification/Statement of Attainment AND/OR
  - relevant workplace experience
- Currency can be demonstrated through:
  - performing the competency being assessed as part of current employment OR
  - having consulted with an organisation providing relevant environmental monitoring, management or technology services about performing the competency being assessed within the last twelve months.

## Links

Companion Volume implementation guides are found in VETNet -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=5b04f318-804f-4dc0-9463-c3fb9a3fe998>

# MSS402083 Use planning software systems in operations

## Modification History

Release 1. Updated unit code. Changes to performance criteria. Range of conditions removed. Assessment requirements amended. Equivalent outcome.

## Application

This unit describes the skills and knowledge to access planning software (often known as Enterprise Resource Planning (ERP), Materials Resource Planning (MRP and MRPII), and often by a proprietary name, to make routine business decisions required of the person as a regular part of their job.

This unit applies to an individual in an organisation using a planning software system and who must interface with that system. The unit applies to both accessing information from the planning software system and using it as an aid to decision making. This unit requires the application of communication, planning, and problem solving associated with using planning software in own work.

No licensing or certification requirements exist at the time of publication. Relevant legislation, industry standards and codes of practice within Australia must be applied.

## Pre-requisite Unit

Nil

## Competency Field

Competitive systems and practices

## Unit Sector

Not applicable

## Elements and Performance Criteria

Elements describe the essential outcomes.

Performance criteria describe the performance needed to demonstrate achievement of the element.

- |                        |   |
|------------------------|---|
| <b>1 Use interface</b> | <b>1.1</b> Identify terminals relevant to own workstation and functions |
|                        | <b>1.2</b> Use peripherals to access system                             |

Elements describe the essential outcomes.

Performance criteria describe the performance needed to demonstrate achievement of the element.

- |   |  |     |  |
|---|--|-----|--|
|   |  | 1.3 | Navigate through system and screens to find program menu and data relevant to own work                 |
|   |  | 1.4 | Identify and input information on own work processes at required frequency and to required detail      |
|   |  | 1.5 | Access message section and read and acknowledge messages   |
|   |  | 1.6 | Identify problems and make suggestions for improvements to relevance of planning software to own work  |
| 2 | <b>Access information</b>                        | 2.1 | Identify work processes that require information from planning software system                         |
|   |  | 2.2 | Obtain data and information on current operations from the planning software system                    |
|   |  | 2.3 | Identify the status of items in the value stream   |
|   |  | 2.4 | Access and read historical data and information  |
|   |  | 2.5 | Read and interpret information and identify and prioritise actions required in response to information |
| 3 | <b>Take action in accordance with procedures</b> | 3.1 | Take action in response to information obtained from planning software                                 |
|   |  | 3.2 | Follow up to ensure anticipated results have occurred  |
|   |  | 3.3 | Record adjustments and variations  |
|   |  | 3.4 | Identify any learning needs to use planning software and seek support                                  |

## Foundation Skills

This section describes those language, literacy, numeracy and employment skills that are essential to performance.

Foundation skills essential to performance are explicit in the performance criteria of this unit of competency.

## **Unit Mapping Information**

Release 1. Supersedes and is equivalent to MSS402060 Use planning software systems in operations.

## **Links**

The MSS Sustainability Companion Volume implementation Guides are available from VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=5b04f318-804f-4dc0-9463-c3fb9a3fe998>

# **Assessment Requirements for MSS402083 Use planning software systems in operations**

## **Modification History**

Release 1. Updated unit code. Changes to performance criteria. Range of conditions removed. Assessment requirements amended. Equivalent outcome.

## **Performance Evidence**

There must be evidence the candidate has completed the tasks outlined in the elements and performance criteria of this unit and:

- used planning software systems for at least 3 different purposes, utilising outcomes to aid decision making.

## **Knowledge Evidence**

There must be evidence the candidate has knowledge of:

- planning software system and operation, including:
  - terminal locations and types
  - security and access arrangements
  - information held in planning software relevant to own work
  - data collection methods for operations in work area
  - assistance arrangements for users of planning software
  - business activities exercised with the planning software system
- procedures for recommending improvements
- data and information sources.

## **Assessment Conditions**

Skills must have been demonstrated in the workplace or in a simulated environment that reflects workplace conditions and contingencies. The following conditions must be met for this unit:

- use of facilities, equipment and resources, including:
  - planning software systems.

Assessors must satisfy the NVR/AQTF mandatory competency requirements for assessors.

## Links

The MSS Sustainability Companion Volume implementation Guides are available from VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=5b04f318-804f-4dc0-9463-c3fb9a3fe998>

## **MSS403001 Review competitive systems and practices**

### **Modification History**

Release 1. Supersedes and is equivalent to MSS403001A Implement competitive systems and practices

### **Application**

This unit of competency covers the skills and knowledge required by an individual to review competitive systems and practices in their own work in a way that integrates with others in the team or work area who are also implementing competitive systems and practices. The unit focuses on the holistic application of competitive systems and practices to achieve improved performance in own work and in activities with others in the team or work area that contribute to improving customer benefit. Depending on the operations or processes in the team or work area the unit may also include interaction with other teams and work areas.

The unit is suitable for individuals who have formal responsibility for the work of others, such as team leaders. It is also suitable for individuals, such as technicians and tradespeople, who must integrate the application of their technical skills with the implementation of competitive systems and practices in an organisation.

The unit applies to the areas of cost, quality, delivery, safety/environment, and employee capability, including continuous reviewing of performance against these five areas in liaison with other relevant people. Improvement initiatives in these five areas are usually developed and implemented with the support of technical support staff. Whereas other units may emphasise the competence to use one or more competitive practices, this unit emphasises the ability to advance on all five key areas over a moderate time period.

This unit requires the application of skills associated with problem solving and initiative and enterprise in order to identify opportunities to make improvements and maximise performance. Communication, the ability to work in a team and planning and organising skills are required to implement improvements and address any conflicts that arise. This unit also requires an ability to identify appropriate technology, and to consider and integrate feedback on how personal performance can be improved.

No licensing, legislative or certification requirements apply to this unit at the time of publication.

### **Pre-requisite Unit**

Nil



## Competency Field

Competitive systems and practices

## Unit Sector

Not applicable

## Elements and Performance Criteria

Elements describe the essential outcomes.

Performance criteria describe the performance needed to demonstrate achievement of the element.

1	<b>Contribute to the improvement of the operations system in team or work area</b>	1.1	Identify key performance indicators (KPIs) for area of operations.
		1.2	Review competitive systems and practices to improve health, safety and environment (HSE) performance of self and others.
		1.3	Review competitive systems and practices to maximise quality consistency.
		1.4	Review competitive systems and practices and identify any skill and training issues that need to be addressed to improve capability of self and others.
		1.5	Review competitive systems and practices to maximise customer benefit/cost ratio.
		1.6	Review competitive systems and practices to reduce lead time to delivery within the scope of authority and responsibility.
		1.7	Work with relevant stakeholders to resolve conflicts which arise from implementation of competitive systems and practices.
		1.8	Select improvements which will deliver the greatest overall benefit for the resources required/available without reducing current performance on individual factors.
2	<b>Implement improvements</b>	2.1	Implement the chosen improvement/s.
		2.2	Check the selected improvements improve the system as

a whole and do not result in unintended consequences.

- 2.3 Monitor implementation and make adjustments, as required.

## Foundation Skills

This section describes those required skills (language, literacy and numeracy) that are essential to performance.

Foundation skills essential to performance are explicit in the performance criteria of this unit of competency.

## Range of Conditions

This field allows for different work environments and conditions that may affect performance. Essential operating conditions that may be present (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) are included.

- Competitive systems and practices include one or more of:**
- lean operations
  - agile operations
  - preventative and predictive maintenance approaches
  - statistical process control systems, including six sigma and three sigma
  - JIT, kanban and other pull-related operations control systems
  - supply, value, and demand chain monitoring and analysis
  - 5S
  - continuous improvement (kaizen)
  - breakthrough improvement (kaizen blitz)
  - cause/effect diagrams
  - overall equipment effectiveness (OEE)
  - takt time
  - process mapping
  - problem solving
  - run charts
  - standard procedures
  - current reality tree.
- Customer includes one or more of:**
- internal customers
  - external customers

- final customer.
- Supplier includes one or more of:**
- internal supplier
  - external supplier
  - ultimate source of inputs (e.g. raw materials) to the process.
- Muda (waste) includes all of:**
- any activity which does not contribute to customer perceived benefit/features
  - excess production and early production
  - delays
  - movement and transport
  - poor process design
  - inventory
  - inefficient performance of a process
  - making defective items
  - other activities which do not yield any benefit to the organisation or any benefit to the organisations customers.
- Operations includes all of:**
- process
  - plant and equipment
  - procedures and practices
  - skills and work organisation of the workforce
  - other components which make up the productive organisation.
- Implement improvements within one or more of:**
- own job role
  - processes and operations in the work area or team.

## Unit Mapping Information

Release 1. Supersedes and is equivalent to MSS403001A Implement competitive systems and practices

## Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=5b04f318-804f-4dc0-9463-c3fb9a3fe998>



# **Assessment Requirements for MSS403001 Review competitive systems and practices**

## **Modification History**

Release 1. Supersedes and is equivalent to MSS403001A Implement competitive systems and practices

## **Performance Evidence**

Evidence required to demonstrate competence in this unit must be relevant to and satisfy the requirements of the elements and performance criteria and include the ability to contribute to and implement improvements on one (1) or more occasions and to improve performance in:

- cost
- quality
- delivery
- safety/environment
- employee capability.

## **Knowledge Evidence**

Must provide evidence that demonstrates knowledge relevant to their job role sufficient to fulfil their job role independently, including:

- techniques for monitoring cost, quality, delivery, safety/ environment and employee capability
- muda (waste)
- kaizen (continuous improvement)
- key performance indicators (KPIs), their use and problems
- cost components of products (goods or services)
- techniques for identifying and improving employee capability.

## **Assessment Conditions**

- The unit should be assessed holistically and the judgement of competence shall be based on a holistic assessment of the evidence.
- The collection of performance evidence is best done from a report and/or folio of evidence drawn from:
  - a single project which provides sufficient evidence of the requirements of all the elements and performance criteria
  - multiple smaller projects which together provide sufficient evidence of the requirements of all the elements and performance criteria.
- A third-party report, or similar, may be needed to testify to the work done by the individual, particularly when the project has been done as part of a project team.

- Assessment should use a real project in an operational workplace.
- Knowledge evidence may be collected concurrently with performance evidence or through an independent process such as workbooks, written assessments or interviews (provided a record is kept).
- Assessment processes and techniques must be appropriate to the language, literacy and numeracy requirements of the work being performed and the needs of the candidate.
- Conditions for assessment must include access to all tools, equipment, materials and documentation required, including relevant workplace procedures, product and manufacturing specifications associated with this unit.
- Foundation skills are integral to competent performance of the unit and should not be assessed separately.
- Assessors must satisfy the assessor competency requirements that are in place at the time of the assessment as set by the VET regulator.
- The assessor must demonstrate both technical competency and currency.
- Technical competence can be demonstrated through:
  - relevant VET or other qualification/Statement of Attainment AND/OR
  - relevant workplace experience
- Currency can be demonstrated through:
  - performing the competency being assessed as part of current employment OR
  - having consulted with an organisation providing relevant environmental monitoring, management or technology services about performing the competency being assessed within the last twelve months.

## Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=5b04f318-804f-4dc0-9463-c3fb9a3fe998>

## **MSS403002 Ensure process improvements are sustained**

### **Modification History**

Release 1. Supersedes and is equivalent to MSS403002A Ensure process improvements are sustained

### **Application**

This unit of competency covers the skills and knowledge required to ensure that the gains which have been made by using improved methods, processes and/or equipment are sustained as the new baseline/standard for an area of work and so prevent regression to former practices, or digression to less efficient practices.

This unit applies to individuals working in a team or work area who have already implemented competitive systems and practices related improvements in their own work and who must work effectively with others implementing competitive systems and practices to ensure that performance improvement gains are sustained.

The unit is also suitable for individuals who have formal or informal responsibility for the work of others, such as team leaders; individuals, such as senior operators, who must mentor others; or individuals, such as technicians and tradespeople, who must integrate the application of their technical skills with the implementation of competitive systems and practices in an organisation.

The unit can be applied to all areas of an organisation, including production, maintenance, logistics and office functions.

The unit covers the implementation of practices to ensure that process improvements are sustained and opportunities taken to suggest further improvements.

Improvement initiatives can be made by any number of methods by teams or individuals. The unit assumes that desired levels of performance or quality are known.

This unit requires the application of skills associated with problem solving, initiative and enterprise, and planning and organising in order to check and monitor the impacts of change. It also requires communication and the ability to work with others to assess the impact of change in own work and on other's work, as well as self-management and learning to adapt improvements according to new information and feedback.

No licensing, legislative or certification requirements apply to this unit at the time of publication.

## Pre-requisite Unit

Nil

## Competency Field

Competitive systems and practices

## Unit Sector

Not applicable

## Elements and Performance Criteria

Elements describe the essential outcomes.

Performance criteria describe the performance needed to demonstrate achievement of the element.

- |   |  |     |   |
|---|--|-----|---|
| 1 | <b>Examine previous improvements</b>             | 1.1 | Identify impact of previous process improvements to systems, equipment, operations or products in work area.  |
|   |  | 1.2 | Identify improvements that have not met objectives.   |
| 2 | <b>Ensure corrective actions are implemented</b> | 2.1 | Identify corrective actions that can be taken on process improvements that have not met objectives.   |
|   |  | 2.2 | Liaise with relevant people associated with the anticipated corrective action.  |
|   |  | 2.3 | Obtain any required approvals.  |
|   |  | 2.4 | Arrange for the supply of resources.  |
|   |  | 2.5 | Check impacts of corrective action on work health and safety (WHS), quality and environmental systems in work area and take action in accordance with procedures. |
|   |  | 2.6 | Check that self and others in team or work area have required skills for corrective actions.  |
|   |  | 2.7 | Monitor implementation of corrective action.  |



- |   |   |     |  |
|---|---|-----|--|
|   |   | 2.8 | Make required adjustments.   |
| 3 | <b>Verify systems support improvement</b> | 3.1 | Verify procedures reflect improvements.  |
|   |   | 3.2 | Check that training and assessment activities in team or work area reflect improvements. |
|   |   | 3.3 | Liaise with relevant people to ensure their support of the new or modified system/s.     |
| 4 | <b>Audit the change</b>                   | 4.1 | Determine an appropriate audit period/cycle.   |
|   |   | 4.2 | Agree relevant measures/indicators for the improvement.                                  |
|   |   | 4.3 | Measure performance at agreed times using agreed measures.                               |
|   |   | 4.4 | Investigate causes of under-performance.   |
|   |   | 4.5 | Take appropriate corrective action to improve performance.                               |
|   |   | 4.6 | Re-audit the improvement on an agreed basis.   |

## Foundation Skills

This section describes those required skills (language, literacy and numeracy) that are essential to performance.

Foundation skills essential to performance are explicit in the performance criteria of this unit of competency.

## Range of Conditions

This field allows for different work environments and conditions that may affect performance. Essential operating conditions that may be present (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) are included.

**Competitive systems and practices**

- lean operations
- agile operations

- include one or more of:**
- preventative and predictive maintenance approaches
  - statistical process control systems, including six sigma and three sigma
  - Just in Time (JIT), kanban and other pull-related operations control systems
  - supply, value, and demand chain monitoring and analysis
  - 5S
  - continuous improvement (kaizen)
  - breakthrough improvement (kaizen blitz)
  - cause/effect diagrams
  - overall equipment effectiveness (OEE)
  - takt time
  - process mapping
  - problem solving
  - run charts
  - standard procedures
  - current reality tree.

- A change aimed at reducing muda (waste) will be an improvement in one or more of:**
- systems/processes
  - equipment
  - operations/practices
  - products.

- Customers include one or more of:**
- internal customers
  - external customers
  - final customers.

- Suppliers include one or more of:**
- internal suppliers
  - external suppliers
  - ultimate source of process inputs(e.g. raw materials).

- Systems include all of:**
- equipment/plant
  - systems/processes
  - procedures and work practices.

- Resources include all of:**
- equipment
  - modifications
  - consumables
  - people

- suitable work area
- time
- money (expense/capital).

**Procedures (written, verbal, visual, computer based, etc.) include one or any combination of:**

- work instructions
- standard operating procedures (SOPs)
- safe work method statements
- formulas/recipes
- batch sheets
- temporary instructions
- any similar instructions provided for the smooth running of the plant.

**Techniques for sustaining improvements include one or more of:**

- techniques for preventing mistakes by designing the operations process, equipment and tools so that an operation cannot be performed incorrectly (e.g. baka-yoke)
- techniques that generate warning signals where a mistake is about to be performed (poka-yoke)
- use of technology so that it is impossible to do the job any other way
- changes to process or procedures or other changes to the operations system which, if followed, will sustain the change.

**Measuring performance includes one or more of:**

- personally taking measurements
- arranging for measurements to be taken/made by appropriate personnel.

## Unit Mapping Information

Release 1. Supersedes and is equivalent to MSS403002A Ensure process improvements are sustained

## Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=5b04f318-804f-4dc0-9463-c3fb9a3fe998>

# **Assessment Requirements for MSS403002 Ensure process improvements are sustained**

## **Modification History**

Release 1. Supersedes and is equivalent to MSS403002A Ensure process improvements are sustained

## **Performance Evidence**

Evidence required to demonstrate competence in this unit must be relevant to and satisfy the requirements of the elements and performance criteria and include the ability, on two (2) or more occasions to:

- identify previous improvements that have not met objectives
- identify action which will correct this without adverse impact on other areas
- audit and validate the improvement from the change.

## **Knowledge Evidence**

Must provide evidence that demonstrates knowledge relevant to their job role sufficient to fulfil their job role independently, including:

- muda and its causes
- processes and procedures for the organisation relevant to the work area
- poka yoke, baka yoke and similar sustaining approaches
- measures of performance relevant to the work area and the improvement.

## **Assessment Conditions**

- The unit should be assessed holistically and the judgement of competence shall be based on a holistic assessment of the evidence.
- The collection of performance evidence is best done from a report and/or folio of evidence drawn from:
  - a single project which provides sufficient evidence of the requirements of all the elements and performance criteria
  - multiple smaller projects which together provide sufficient evidence of the requirements of all the elements and performance criteria.
- A third-party report, or similar, may be needed to testify to the work done by the individual, particularly when the project has been done as part of a project team.
- Assessment should analyse real process improvements in an operational workplace.
- Knowledge evidence may be collected concurrently with performance evidence or through an independent process such as workbooks, written assessments or interviews (provided a record is kept).

- Assessment processes and techniques must be appropriate to the language, literacy and numeracy requirements of the work being performed and the needs of the candidate.
- Conditions for assessment must include access to all tools, equipment, materials and documentation required, including relevant workplace procedures, product and manufacturing specifications associated with this unit.
- Foundation skills are integral to competent performance of the unit and should not be assessed separately.
- Assessors must satisfy the assessor competency requirements that are in place at the time of the assessment as set by the VET regulator.
- The assessor must demonstrate both technical competency and currency.
- Technical competence can be demonstrated through:
  - relevant VET or other qualification/Statement of Attainment AND/OR
  - relevant workplace experience
- Currency can be demonstrated through:
  - performing the competency being assessed as part of current employment OR
  - having consulted with an organisation providing relevant environmental monitoring, management or technology services about performing the competency being assessed within the last twelve months.

## Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=5b04f318-804f-4dc0-9463-c3fb9a3fe998>

## **MSS403005 Facilitate use of a Balanced Scorecard for performance improvement**

### **Modification History**

Release 1. Supersedes and is equivalent to MSS403005A Facilitate use of a Balanced Scorecard for performance improvement

### **Application**

This unit of competency applies in organisations using a Balanced Scorecard approach to performance improvement. In these organisations the unit applies to individuals in a team or workgroup who facilitate the use of the Balanced Scorecard through leading, assisting and/or motivating others in using the Balance Scorecard approach.

This unit requires the application of skills associated with communication, teamwork, problem solving, initiative, enterprise, and planning and organising in order to provide leadership in the interpretation, review and strategic response to Balanced Scorecard results.

This unit has a strong emphasis on identifying and reviewing required performance measures and requires an ability to use new information to improve performance.

No licensing, legislative or certification requirements apply to this unit at the time of publication.

### **Pre-requisite Unit**

Nil

### **Competency Field**

Competitive systems and practices

### **Unit Sector**

Not applicable

### **Elements and Performance Criteria**

Elements describe the      Performance criteria describe the performance needed to

essential outcomes.		demonstrate achievement of the element.	
1	<b>Interpret Balanced Scorecard results</b>	1.1	Identify patterns of performance shown on strategy map.
		1.2	Identify actions indicated by Balanced Scorecard results.
		1.3	Discuss results with fellow employees and other relevant stakeholders.
		1.4	Facilitate the selection of required actions with employees and other stakeholders.
		1.5	Facilitate the development of implementation plans for team or individuals.
		1.6	Facilitate the implementation of required actions from developed plans.
		1.7	Follow up on implementation to ensure it occurs as planned.
2	<b>Review key performance indicators (KPIs) in the Balanced Scorecard for the organisation and work area</b>	2.1	Relate area and other KPIs to strategy map/strategic objective.
		2.2	Review the actions required by self and others to meet each KPI.
		2.3	Compare current actions to the optimal actions to achieve strategy.
		2.4	Discuss with employees and other stakeholders any modifications to KPIs which will better meet strategy.
		2.5	Recommend amendments to KPIs to relevant personnel.
3	<b>Review reporting systems for Balanced Scorecard information</b>	3.1	Review reporting systems to ensure information needed by self, other employees in area and organisation is available.
		3.2	Review the mix of operational and strategic information to ensure it is appropriate for work area.
		3.3	Review information provided for relevance and currency, and that it is meaningful and not excessive.
		3.4	Recommend improvements to reports and reporting

system, as appropriate.

- |   |  |     |  |
|---|--|-----|--|
| 4 | <b>Lead improvement to work area total performance</b> | 4.1 | Compare actual performance of teams, work areas or individuals with desired total performance using KPIs and other Balanced Scorecard information. |
|   |  | 4.2 | Discuss with team ways of improving total performance.   |
|   |  | 4.3 | Lead processes for improvement in total performance.   |

## Foundation Skills

This section describes those required skills (language, literacy and numeracy) that are essential to performance.

Foundation skills essential to performance are explicit in the performance criteria of this unit of competency.

## Range of Conditions

This field allows for different work environments and conditions that may affect performance. Essential operating conditions that may be present (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) are included.

- Competitive systems and practices include one or more of:**
- lean operations
  - agile operations
  - preventative and predictive maintenance approaches
  - statistical process control systems ,including six sigma and three sigma
  - Just in Time (JIT), kanban and other pull-related operations control systems
  - supply, value, and demand chain monitoring and analysis
  - 5S
  - continuous improvement (kaizen)
  - breakthrough improvement (kaizen blitz)
  - cause/effect diagrams
  - overall equipment effectiveness (OEE)
  - takt time
  - process mapping
  - problem solving



- run charts
  - standard procedures
  - current reality tree.
- Team includes one or more of:**
- all individuals in the target work area who are involved in the implementation and use of the Balanced Scorecard
  - formally designated team working to a team leader
  - informal or *ad hoc* team/group of people.
- Balanced Scorecard includes all of:**
- an organisation's vision and strategy
  - establishing and measuring enterprise activity in a number of different financial and non-financial perspectives
  - use of KPIs related to an overall strategy map
  - use of metrics for KPI components, such as customer, environmental, internal business process and learning and growth.
- KPIs include all of:**
- financial performance measures
  - non-financial performance measures against targets
  - other performance indicators relevant for informing the teams activities (e.g. performance indicators for other areas or sections, suppliers or customers).
- Actions include one or more of:**
- corrective action for poor results
  - confirming action for acceptable results
  - taking steps to ensure actions for good results are consistently maintained
  - changes to performance indicators or performance measurement.

## Unit Mapping Information

Release 1. Supersedes and is equivalent to MSS403005A Facilitate use of a Balanced Scorecard for performance improvement

## Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=5b04f318-804f-4dc0-9463-c3fb9a3fe998>

# **Assessment Requirements for MSS403005 Facilitate use of a Balanced Scorecard for performance improvement**

## **Modification History**

Release 1. Supersedes and is equivalent to MSS403005A Facilitate use of a Balanced Scorecard for performance improvement

## **Performance Evidence**

Evidence required to demonstrate competence in this unit must be relevant to and satisfy the requirements of the elements and performance criteria and include the ability to review Balanced Scorecard use on two (2) or more occasions and to:

- interpret Balanced Scorecard results
- review key performance indicators (KPIs)
- review reporting
- use this to help improve total performance.

## **Knowledge Evidence**

Must provide evidence that demonstrates knowledge relevant to their job role sufficient to fulfil their job role independently, including:

- components of the Balanced Scorecard, including perspectives, feedback loops, targets and metrics, and reporting systems
- analysis of Balanced Scorecard information
- uses and limitations of KPIs and the alignment of KPIs with the organisations strategy map
- how to identify areas for improvement from Balanced Scorecard information.

## **Assessment Conditions**

- The unit should be assessed holistically and the judgement of competence shall be based on a holistic assessment of the evidence.
- The collection of performance evidence is best done from a report and/or folio of evidence drawn from:
  - single projects which provides sufficient evidence of the requirements of all the elements and performance criteria
  - multiple smaller projects which together provide sufficient evidence of the requirements of all the elements and performance criteria.
- A third-party report, or similar, may be needed to testify to the work done by the individual, particularly when the project has been done as part of a project team.
- Assessment should use a real project in an operational workplace.

- Knowledge evidence may be collected concurrently with performance evidence or through an independent process such as workbooks, written assessments or interviews (provided a record is kept).
- Assessment processes and techniques must be appropriate to the language, literacy and numeracy requirements of the work being performed and the needs of the candidate.
- Conditions for assessment must include access to all tools, equipment, materials and documentation required, including relevant workplace procedures, product and manufacturing specifications associated with this unit.
- Foundation skills are integral to competent performance of the unit and should not be assessed separately.
- Assessors must satisfy the assessor competency requirements that are in place at the time of the assessment as set by the VET regulator.
- The assessor must demonstrate both technical competency and currency.
- Technical competence can be demonstrated through:
  - relevant VET or other qualification/Statement of Attainment AND/OR
  - relevant workplace experience
- Currency can be demonstrated through:
  - performing the competency being assessed as part of current employment OR
  - having consulted with an organisation providing relevant environmental monitoring, management or technology services about performing the competency being assessed within the last twelve months.

## Links

Companion Volume implementation guides are found in VETNet -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=5b04f318-804f-4dc0-9463-c3fb9a3fe998>

## **MSS403010 Facilitate change in an organisation implementing competitive systems and practices**

### **Modification History**

Release 1. Supersedes and is equivalent to MSS403010A Facilitate change in an organisation implementing competitive systems and practices

### **Application**

This unit of competency covers the skills and knowledge required by individuals responsible for facilitating change processes in an organisation implementing competitive operational practices.

This unit applies to individuals who facilitate the change process resulting from implementing one or more competitive systems or practices. This implementation may also be associated with other changes, such as the introduction of new products, processes or equipment. The unit will usually apply to individuals whose responsibility is at the team, area or section level rather than the whole organisation. The responsibility may be formally designated or be informal, as in mentoring and assisting fellow employees.

This unit assumes that consultation and agreement on the implementation of the competitive systems and practices and other associated changes has already occurred and the nature and extent of the change has been agreed.

This unit does not cover the negotiation of change in a formal industrial relations sense but does cover the skills needed to identify real or potential change implementation issues, including those that may need to be referred to formal consultation and/or dispute settlement procedures.

This unit has a strong emphasis on planning, encouraging and facilitating in a changing environment within the organisation, including using appropriate communication, teamwork, problem solving, initiative and self-management.

No licensing, legislative or certification requirements apply to this unit at the time of publication.

### **Pre-requisite Unit**

Nil

## Competency Field

Competitive systems and practices

## Unit Sector

Not applicable

## Elements and Performance Criteria

Elements describe the essential outcomes.

Performance criteria describe the performance needed to demonstrate achievement of the element.

- |   |   |     |   |
|---|---|-----|---|
| 1 | <b>Define nature and impact of change for designated area and processes</b> | 1.1 | Identify the organisation's aims and objectives for the competitive systems and practices techniques related to the change process. |
|   |   | 1.2 | Identify opportunities for implementation of change within work area.   |
|   |   | 1.3 | Determine impacts of change for work area, including potential benefits and impacts on own work and work of fellow employees.       |
| 2 | <b>Identify key performance indicators (KPIs)</b>                           | 2.1 | Liaise, where required, with managers, engineers and other staff responsible for designing and/or implementing change.              |
|   |   | 2.2 | Identify KPIs for own work responsibility and that of the work area.  |
|   |   | 2.3 | Communicate KPIs to fellow employees.   |
|   |   | 2.4 | Check that data collection and processing are appropriate for KPIs.   |
|   |   | 2.5 | Raise and resolve issues related to KPIs with relevant personnel.   |
| 3 | <b>Liaise with key stakeholders</b>   | 3.1 | Identify key stakeholders impacted by the change.   |
|   |   | 3.2 | Communicate with key stakeholders within scope of authority.  |

- |   |  |     |  |
|---|--|-----|--|
|   |  | 3.3 | Identify and address issues and concerns of each stakeholder if within scope of authority.   |
|   |  | 3.4 | Develop and/or locate information required to address key concerns.  |
|   |  | 3.5 | Refer issues and concerns outside of scope of authority to appropriate personnel.  |
| 4 | <b>Develop a strategy to help implement change</b> | 4.1 | Identify or develop a work plan for implementing change.   |
|   |  | 4.2 | Make information required to support change available to team members.   |
|   |  | 4.3 | Communicate/circulate draft work plan to other employees in work area, supervisors, technical experts and other appropriate personnel for comment. |
|   |  | 4.4 | Assess suggested changes and incorporate into work plan, where appropriate.  |
| 5 | <b>Implement change</b>                            | 5.1 | Obtain authorisation to commence change implementation in accordance with organisation procedures.   |
|   |  | 5.2 | Implement change in accordance with work plan and organisational work health and safety (WHS) and consultation procedures.                         |
| 6 | <b>Monitor implementation of change</b>            | 6.1 | Maintain open communication channels with all stakeholders during implementation.  |
|   |  | 6.2 | Monitor KPIs during implementation.  |
|   |  | 6.3 | Encourage and facilitate improvement suggestions of team members.  |
|   |  | 6.4 | Identify areas requiring improvement in change implementation.   |
|   |  | 6.5 | Make improvements to implementation according to organisation procedures.  |

## Foundation Skills

This section describes those required skills (language, literacy and numeracy) that are essential to performance.

Foundation skills essential to performance are explicit in the performance criteria of this unit of competency.

## Range of Conditions

This field allows for different work environments and conditions that may affect performance. Essential operating conditions that may be present (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) are included.

**Competitive systems and practices include one or more of:**

- lean operations
- agile operations
- preventative and predictive maintenance approaches
- statistical process control systems, including six sigma and three sigma
- Just in Time (JIT), kanban and other pull-related operations control systems
- supply, value, and demand chain monitoring and analysis
- 5S
- continuous improvement (kaizen)
- breakthrough improvement (kaizen blitz)
- cause/effect diagrams
- overall equipment effectiveness (OEE)
- takt time
- process mapping
- problem solving
- run charts
- standard procedures
- current reality tree.

**Work plan for change includes one or more of:**

- timetables
- KPIs
- training needs
- WHS implications
- contingency plans

- responsibilities with team members and senior managers, engineers and other staff responsible for designing and/or implementing change.

**Issues and concerns include one or more of:**

- individual and group concerns
- those expressed by and through industrial processes.

**Gathering and monitoring performance data includes one or more of:**

- manually by individual employees through charts, tally sheets or keypad/board entry
- automatically through software, such as SCADA software, ERP systems, MRP and proprietary systems.

## Unit Mapping Information

Release 1. Supersedes and is equivalent to MSS403010A Facilitate change in an organisation implementing competitive systems and practices

## Links

Companion Volume implementation guides are found in VETNet -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=5b04f318-804f-4dc0-9463-c3fb9a3fe998>



# **Assessment Requirements for MSS403010 Facilitate change in an organisation implementing competitive systems and practices**

## **Modification History**

Release 1. Supersedes and is equivalent to MSS403010A Facilitate change in an organisation implementing competitive systems and practices

## **Performance Evidence**

Evidence required to demonstrate competence in this unit must be relevant to and satisfy the requirements of the elements and performance criteria and include the ability, for one (1) or more changes, to:

- identify competitive systems and practices in own workplace
- identify changes to own work and work area flowing from implementation of relevant competitive systems and practices
- consult with stakeholders regarding changes and issues
- develop a strategy to implement required changes
- make suggestions for improvements.

## **Knowledge Evidence**

Must provide evidence that demonstrates knowledge relevant to their job role sufficient to fulfil their job role independently, including:

- features of competitive operational practices in own work area
- health, safety and environment (HSE) principles and requirements for area of responsibility
- change implementation procedures
- planning and implementation strategies
- employee assistance mechanisms within organisation.

## **Assessment Conditions**

- The unit should be assessed holistically and the judgement of competence shall be based on a holistic assessment of the evidence.
- The collection of performance evidence:
  - should occur over a range of situations which include typical disruptions to normal, smooth operation of the workplace
  - will typically include a supervisor/third-party report focussing on consistent performance and problem recognition and solving. A supervisor/third-party report must be prepared by someone who has a direct, relevant, current relationship with the person being assessed and who is in a position to form a judgement on workplace performance relevant to the unit of competency

- must include facilitating change in relation to the implementation of competitive operational practices in own work area
- will typically include the use of appropriate tools, equipment and safety gear requiring demonstration of preparation, operation, completion and responding to problems.
- Assessment should occur in operational workplace situations.
- Knowledge evidence may be collected concurrently with performance evidence (provided a record is kept) or through an independent process such as workbooks, written assessments or interviews (provided a record is kept).
- Assessment processes and techniques must be appropriate to the language, literacy and numeracy requirements of the work being performed and the needs of the candidate.
- Conditions for assessment must include access to all tools, equipment, materials and documentation required, including relevant workplace procedures, product and manufacturing specifications associated with this unit.
- Foundation skills are integral to competent performance of the unit and should not be assessed separately.
- Assessors must satisfy the assessor competency requirements that are in place at the time of the assessment as set by the VET regulator.
- The assessor must demonstrate both technical competency and currency.
- Technical competence can be demonstrated through:
  - relevant VET or other qualification/Statement of Attainment AND/OR
  - relevant workplace experience
- Currency can be demonstrated through:
  - performing the competency being assessed as part of current employment OR
  - having consulted with an organisation providing relevant environmental monitoring, management or technology services about performing the competency being assessed within the last twelve months.

## Links

Companion Volume implementation guides are found in VETNet -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=5b04f318-804f-4dc0-9463-c3fb9a3fe998>

# **MSS403011 Facilitate implementation of competitive systems and practices**

## **Modification History**

Release 1. Supersedes and is equivalent to MSS403011A Facilitate implementation of competitive systems and practices

## **Application**

This unit of competency covers the skills and knowledge required by individuals who facilitate, lead or mentor others in competitive systems and practices implementation in a work area.

This unit applies to people responsible for facilitating others in implementing competitive systems and practices in their work. It may apply to formally designated team leaders or people given special roles in the implementation process that go beyond their own work and which involve guiding, facilitating or mentoring others. The unit applies to competitive systems and practices implementation activities at the work area or section level.

The unit requires an individual to integrate a range of competitive systems and practices knowledge and skills as part of their role. The unit covers assisting others to understand and apply a holistic view of their job and their role within an organisation, including the objectives that must be met as part of competitive systems and practices used by the organisation.

This unit requires the application of skills associated with communication, teamwork, problem solving, initiative and enterprise, planning and organising, and self-management. This unit has a strong emphasis on planning and implementation, and also requires an ability to learn from experience and feed new information back into strategies to improve own performance and that of others.

No licensing, legislative or certification requirements apply to this unit at the time of publication.

## **Pre-requisite Unit**

Nil

## Competency Field

Competitive systems and practices

## Unit Sector

Not applicable

## Elements and Performance Criteria

Elements describe the essential outcomes.

Performance criteria describe the performance needed to demonstrate achievement of the element.

- |   |  |     |   |
|---|--|-----|---|
| 1 | <b>Facilitate the development of process and competitive systems and practices knowledge</b> | 1.1 | Ensure necessary technical documentation and information about the process and competitive systems and practices is available.          |
|   |  | 1.2 | Assist and mentor others in accessing information.  |
|   |  | 1.3 | Identify work activities which may inhibit the ongoing development of competitive systems and practices skills and knowledge of others. |
|   |  | 1.4 | Arrange for the provision of workforce development and training for self and others, as appropriate.                                    |
|   |  | 1.5 | Encourage others to apply technical knowledge to the improvement process.   |
| 2 | <b>Facilitate commitment to efficiency improvements</b>                                      | 2.1 | Ensure budgets, operating procedures and other related documentation is available.  |
|   |  | 2.2 | Assist others to apply this information to their work responsibilities.   |
|   |  | 2.3 | Encourage the identification of waste.  |
|   |  | 2.4 | Encourage an environment where efficiency improvements are recommended by fellow employees.   |
| 3 | <b>Encourage a competitive systems and</b>   | 3.1 | Encourage and, where necessary, develop communications between specialists and work group members.                                      |

4	<b>practices approach to work</b>	3.2	Lead development of strategies to monitor and deal with identified waste issues.
		3.3	Resource and encourage other employees to identify and take action on potential problems.
		3.4	Arrange for workforce development and training for self and others, as required, in relevant competitive systems and practice procedures and techniques.
		3.5	Guide others in relating identified problems to the maintenance strategy, and developing any required changes, to ensure awareness, learning and commitment.
	<b>Implement process and organisation improvements</b>	4.1	Plan the implementation of work group suggestions and externally suggested improvements.
		4.2	Facilitate commitment to, and involvement in, the implementation planning of improvements and to follow improvements to their conclusion.
		4.3	Encourage the application of the 'plan, do, measure, improve, control' approach to the job.
		4.4	Arrange for workforce development and training, as required, to facilitate continued involvement by others in improvement processes.
		4.5	Involve work group and other key personnel in identification of skill needs and means of skills acquisition to fill any identified gaps.

## Foundation Skills

This section describes those required skills (language, literacy and numeracy) that are essential to performance.

Foundation skills essential to performance are explicit in the performance criteria of this unit of competency.

## Range of Conditions

This field allows for different work environments and conditions that may affect

performance. Essential operating conditions that may be present (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) are included.

**Competitive systems and practices include one or more of:**

- lean operations
- agile operations
- preventative and predictive maintenance approaches
- statistical process control systems, including six sigma and three sigma
- Just in Time (JIT), kanban and other pull-related operations control systems
- supply, value, and demand chain monitoring and analysis
- 5S
- continuous improvement (kaizen)
- breakthrough improvement (kaizen blitz)
- cause/effect diagrams
- overall equipment effectiveness (OEE)
- takt time
- process mapping
- problem solving
- run charts
- standard procedures
- current reality tree.

**Budgets include one or more of:**

- financial
- time
- materials/products
- other business plans which are relevant to the team and the work area.

**Categories of waste include one or more of:**

- excess production and early production
- delays
- movement and transport
- poor process design
- inventory
- inefficient performance of a process
- making defective items
- activities which do not yield any benefit to the organisation or any benefit to the organisations customers.

**Key reliability issues**

- cleanliness

- include one or more of:**
- poor lubrication
  - incorrect adjustment
  - poor training and instructions for employees.

## Unit Mapping Information

Release 1. Supersedes and is equivalent to MSS403011A Facilitate implementation of competitive systems and practices

## Links

Companion Volume implementation guides are found in VETNet -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=5b04f318-804f-4dc0-9463-c3fb9a3fe998>

# Assessment Requirements for MSS403011 Facilitate implementation of competitive systems and practices

## Modification History

Release 1. Supersedes and is equivalent to MSS403011A Facilitate implementation of competitive systems and practices

## Performance Evidence

Evidence required to demonstrate competence in this unit must be relevant to and satisfy the requirements of the elements and performance criteria and include the ability, for three (3) or more organisation improvements which include the facilitation of competitive systems and practices, to:

- identify processes and products of the organisation and work area
- analyse future skill development needs of work group
- mentor effectively in a one-on-one situation
- facilitate communication between work group and external competitive systems and practices specialists and managers
- lead work group in identifying efficiency improvements and elimination of waste.

## Knowledge Evidence

Must provide evidence that demonstrates knowledge relevant to their job role sufficient to fulfil their job role independently, including:

- information technology systems used in the organisation
- features of competitive operational practices in own work area
- monitoring and data gathering systems in work area (e.g. SCADA, ERP and MRP)
- methods of gathering data against key performance indicators (KPIs)
- facilitation techniques to encourage work group development and improvement.

## Assessment Conditions

- The unit should be assessed holistically and the judgement of competence shall be based on a holistic assessment of the evidence.
- The collection of performance evidence:
  - should occur over a range of situations which include typical disruptions to normal, smooth operation of the workplace
  - will typically include a supervisor/third-party report focussing on consistent performance and problem recognition and solving. A supervisor/third-party report must be prepared by someone who has a direct, relevant, current relationship with the person being assessed and who is in a position to form a judgement on workplace performance relevant to the unit of competency



- must include facilitation of competitive systems and practices implementation in own workplace
- will typically include the use of appropriate tools, equipment and safety gear requiring demonstration of preparation, operation, completion and responding to problems.
- Assessment should occur in operational workplace situations.
- Knowledge evidence may be collected concurrently with performance evidence (provided a record is kept) or through an independent process such as workbooks, written assessments or interviews (provided a record is kept).
- Assessment processes and techniques must be appropriate to the language, literacy and numeracy requirements of the work being performed and the needs of the candidate.
- Conditions for assessment must include access to all tools, equipment, materials and documentation required, including relevant workplace procedures, product and manufacturing specifications associated with this unit.
- Foundation skills are integral to competent performance of the unit and should not be assessed separately.
- Assessors must satisfy the assessor competency requirements that are in place at the time of the assessment as set by the VET regulator.
- The assessor must demonstrate both technical competency and currency.
- Technical competence can be demonstrated through:
  - relevant VET or other qualification/Statement of Attainment AND/OR
  - relevant workplace experience
- Currency can be demonstrated through:
  - performing the competency being assessed as part of current employment OR
  - having consulted with an organisation providing relevant environmental monitoring, management or technology services about performing the competency being assessed within the last twelve months.

## Links

Companion Volume implementation guides are found in VETNet -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=5b04f318-804f-4dc0-9463-c3fb9a3fe998>

## **MSS403013 Lead team culture improvement**

### **Modification History**

Release 1. Supersedes and is equivalent to MSS403013A Lead team culture improvement

### **Application**

This unit of competency covers the skills and knowledge required by a team leader or other person responsible for developing a culture within a team appropriate for supporting competitive systems and practices.

This unit applies where an organisation has embarked on competitive systems and practices and a team leader or other responsible person is required to change or improve the team culture to maximise the benefits from competitive systems and practices.

This unit requires the application of skills associated with communication, teamwork, problem solving, initiative and enterprise, planning and organising, and self-management in order to provide leadership in a changing team environment. This unit has a strong emphasis on planning and change management, but also requires an ability to learn from experience and feed new information back into strategies to improve performance.

No licensing, legislative or certification requirements apply to this unit at the time of publication.

### **Pre-requisite Unit**

Nil

### **Competency Field**

Competitive systems and practices

### **Unit Sector**

Not applicable

### **Elements and Performance Criteria**

Elements describe the essential outcomes.

Performance criteria describe the performance needed to demonstrate achievement of the element.

- |   |   |     |  |
|---|---|-----|--|
| 1 | <b>Facilitate the team's understanding of the competitive systems and practices strategy</b>                                  | 1.1 | Communicate with all team members the objectives and benefits of the competitive systems and practices strategy.   |
|   |   | 1.2 | Review with team members the techniques and methods that will be used in achieving the competitive systems and practices strategy.   |
|   |   | 1.3 | Using a systems approach, help team members understand how the team fits into the organisation.  |
|   |   | 1.4 | Establish appropriate communication and teamwork within the team and with other teams.   |
|   |   | 1.5 | Develop a work structure with the team that allows for everyone to participate in the application of the competitive systems and practices strategy.   |
| 2 | <b>Facilitate application of knowledge about the importance of controlling variation in competitive systems and practices</b> | 2.1 | Develop the application of a statistical approach by all team members to all relevant facets of the system with a view to reducing variation.  |
|   |   | 2.2 | Encourage the approach of building quality and ensuring team members assist each other in meeting requirements.  |
| 3 | <b>Facilitate the development of skills and knowledge within the team</b>   | 3.1 | Encourage appropriate training for all team members.   |
|   |   | 3.2 | Involve team members in identification of skill needs and skill gaps, and in development of a strategy for training, skills acquisition and self-improvement so as to ensure awareness, learning and commitment. |
| 4 | <b>Facilitate the development of commitment within the team to the competitive systems and practices strategy</b>             | 4.1 | Ensure that the team has sufficient resources and adequate equipment available to meet the requirements of the competitive systems and practices strategy.   |
|   |   | 4.2 | Encourage the adoption of continuous improvement.  |
|   |   | 4.3 | Encourage employee acceptance of responsibility for the quality of own work.   |

- 4.4 Provide continuous feedback and communication of progress at all levels in implementing the strategy.
- 4.5 Involve team members in relating identified problems and opportunities for improvement to the competitive systems and practices strategy, and involve them in developing any required changes, to ensure awareness, learning and commitment.
- 4.6 Establish and monitor indicators of team culture.

## Foundation Skills

This section describes those required skills (language, literacy and numeracy) that are essential to performance.

Foundation skills essential to performance are explicit in the performance criteria of this unit of competency.

## Range of Conditions

This field allows for different work environments and conditions that may affect performance. Essential operating conditions that may be present (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) are included.

- Competitive systems and practices include one or more of:**
- lean operations
  - agile operations
  - preventative and predictive maintenance approaches
  - statistical process control systems, including six sigma and three sigma
  - Just in Time (JIT), kanban and other pull-related operations control systems
  - supply, value, and demand chain monitoring and analysis
  - 5S
  - continuous improvement (kaizen)
  - breakthrough improvement (kaizen blitz)
  - cause/effect diagrams
  - overall equipment effectiveness (OEE)
  - takt time
  - process mapping
  - problem solving

- run charts
- standard procedures
- current reality tree.

**Systems approach includes consideration of the role and requirements of one or more of:**

- customers
- suppliers
- employees
- other value stream members
- members of the public and community groups
- other external individual, group or organisation
- technical processes and equipment
- statutory and regulatory requirements, including work health and safety (WHS) and environment legislation and regulations
- quality standards.

**Team culture can be monitored by one or more of:**

- surveys
- evaluation of toolbox or other regular meetings
- direct discussion with team members
- monitoring of other indicators (e.g. error rates and absenteeism)
- analysis of root cause related to status of team culture.

## Unit Mapping Information

Release 1. Supersedes and is equivalent to MSS403013A Lead team culture improvement

## Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=5b04f318-804f-4dc0-9463-c3fb9a3fe998>

# Assessment Requirements for MSS403013 Lead team culture improvement

## Modification History

Release 1. Supersedes and is equivalent to MSS403013A Lead team culture improvement

## Performance Evidence

Evidence required to demonstrate competence in this unit must be relevant to and satisfy the requirements of the elements and performance criteria and include the ability, for one (1) or more team culture changes, to:

- identify the competitive systems and practices used by the team
- identify changes to the work of the team flowing from the implementation of the relevant competitive systems and practices
- facilitate and monitor changes designed to improve team culture
- communicate effectively with team members providing relevant feedback.

## Knowledge Evidence

Must provide evidence that demonstrates knowledge relevant to their job role sufficient to fulfil their job role independently, including:

- features of competitive operational practices in the team's work area
- principles of change management
- facilitation techniques to encourage team development and improvement.

## Assessment Conditions

- The unit should be assessed holistically and the judgement of competence shall be based on a holistic assessment of the evidence.
- The collection of performance evidence is best done from a report and/or folio of evidence drawn from:
  - a single project which provides sufficient evidence of the requirements of all the elements and performance criteria
  - multiple smaller projects which together provide sufficient evidence of the requirements of all the elements and performance criteria.
- A third-party report, or similar, may be needed to testify to the work done by the individual, particularly when the project has been done as part of a project team.
- Assessment should use a real project in an operational workplace.
- Knowledge evidence may be collected concurrently with performance evidence or through an independent process such as workbooks, written assessments or interviews (provided a record is kept).

- Assessment processes and techniques must be appropriate to the language, literacy and numeracy requirements of the work being performed and the needs of the candidate.
- Conditions for assessment must include access to all tools, equipment, materials and documentation required, including relevant workplace procedures, product and manufacturing specifications associated with this unit.
- Foundation skills are integral to competent performance of the unit and should not be assessed separately.
- Assessors must satisfy the assessor competency requirements that are in place at the time of the assessment as set by the VET regulator.
- The assessor must demonstrate both technical competency and currency.
- Technical competence can be demonstrated through:
  - relevant VET or other qualification/Statement of Attainment AND/OR
  - relevant workplace experience
- Currency can be demonstrated through:
  - performing the competency being assessed as part of current employment OR
  - having consulted with an organisation providing relevant environmental monitoring, management or technology services about performing the competency being assessed within the last twelve months.

## Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=5b04f318-804f-4dc0-9463-c3fb9a3fe998>

## **MSS403021 Facilitate a Just in Time system**

### **Modification History**

Release 1. Supersedes and is equivalent to MSS403021A Facilitate a Just in Time system

### **Application**

This unit of competency covers the skills and knowledge required to facilitate the implementation/operation of a Just in Time (JIT)/kanban system in a team or work area.

This unit applies to a person who needs to monitor the operation of a JIT system and facilitate its working in a team or work area. This will involve liaison with stakeholders as well as examining the data generated and being alert to potential problems and areas for improvement.

This unit requires the application of skills associated with gathering, analysing and communicating information to facilitate implementation of the JIT system. It requires planning and organising skills and has a strong emphasis on communication and teamwork skills to ensure the JIT system is being effectively implemented. This unit also requires the ability to problem solve and take the initiative to consider performance issues and learn from experience to improve future performance.

No licensing, legislative or certification requirements apply to this unit at the time of publication.

### **Pre-requisite Unit**

Nil

### **Competency Field**

Competitive systems and practices

### **Unit Sector**

Not applicable

### **Elements and Performance Criteria**

Elements describe the      Performance criteria describe the performance needed to



essential outcomes.	demonstrate achievement of the element.
1 <b>Monitor the operation of the JIT system</b>	<ul style="list-style-type: none"><li>1.1     Track value of key measures.</li><li>1.2     Recognise indicators of poor performance.</li><li>1.3     Take appropriate quick fix action.</li></ul>
2 <b>Liaise with relevant stakeholders</b>	<ul style="list-style-type: none"><li>2.1     Regularly communicate with team or work group members regarding the operation of the JIT system.</li><li>2.2     Review JIT key performance indicators (KPIs) with team or work group members.</li><li>2.3     Communicate with relevant personnel up and down the value stream regarding the operation of the JIT system.</li><li>2.4     Identify issues with stakeholders and take appropriate quick fix action.</li></ul>
3 <b>Improve the JIT system</b>	<ul style="list-style-type: none"><li>3.1     Identify areas requiring improvement in the JIT system.</li><li>3.2     Identify root cause of JIT-related problems.</li><li>3.3     Review value of key measures.</li><li>3.4     Recognise skill gaps in team members and other stakeholders.</li><li>3.5     Determine any other issues in team or work group, other stakeholders and JIT system leading to poor performance indicators.</li><li>3.6     Develop appropriate improvement solutions.</li><li>3.7     Liaise with relevant people regarding improvement solutions.</li><li>3.8     Implement and/or assist with the implementation of the solutions.</li></ul>

## Foundation Skills

This section describes those required skills (language, literacy and numeracy) that are essential to performance.

Foundation skills essential to performance are explicit in the performance criteria of this unit of competency.

## Range of Conditions

This field allows for different work environments and conditions that may affect performance. Essential operating conditions that may be present (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) are included.

- Competitive systems and practices include one or more of:**
- lean operations
  - agile operations
  - preventative and predictive maintenance approaches
  - statistical process control systems, including six sigma and three sigma
  - Just in Time (JIT), kanban and other pull-related operations control systems
  - supply, value, and demand chain monitoring and analysis
  - 5S
  - continuous improvement (kaizen)
  - breakthrough improvement (kaizen blitz)
  - cause/effect diagrams
  - overall equipment effectiveness (OEE)
  - takt time
  - process mapping
  - problem solving
  - run charts
  - standard procedures
  - current reality tree.

- Key measures include one or more of:**
- inventory levels
  - lead time
  - In Full, On Time and In Specification (IFOTIS) delivery
  - productivity/production rate
  - other measures of pull through the value stream
  - quality.

- Stages where value stream actions can occur include one or more of**
- sales outlet/representative
  - information gathering, data analysis and research
  - product design
  - raw material sourcing
  - intermediate processing
  - final assembler/collation/preparation
  - support services (e.g. accounting, finance and legal)
  - storage and delivery to customer
  - after market support.

## Unit Mapping Information

Release 1. Supersedes and is equivalent to MSS403021A Facilitate a Just in Time system

## Links

Companion Volume implementation guides are found in VETNet -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=5b04f318-804f-4dc0-9463-c3fb9a3fe998>

# Assessment Requirements for MSS403021 Facilitate a Just in Time system

## Modification History

Release 1. Supersedes and is equivalent to MSS403021A Facilitate a Just in Time system

## Performance Evidence

Evidence required to demonstrate competence in this unit must be relevant to and satisfy the requirements of the elements and performance criteria and include the ability, for three (3) or more JIT related improvements, to:

- identify the JIT system and practices used in own work area
- identify and monitor JIT key measures
- solve JIT-related problems to root cause
- communicate effectively with stakeholders
- facilitate and monitor JIT-related changes to operations and practices.

## Knowledge Evidence

Must provide evidence that demonstrates knowledge relevant to their job role sufficient to fulfil their job role independently, including:

- JIT methods relevant to own work area
- production data generated by the process and its application to JIT
- methods of gathering data against key performance indicators (KPIs)
- facilitation techniques to encourage work group development and improvement.

## Assessment Conditions

- The unit should be assessed holistically and the judgement of competence shall be based on a holistic assessment of the evidence.
- The collection of performance evidence:
  - should occur over a range of situations which include typical disruptions to normal, smooth operation of the workplace
  - will typically include a supervisor/third-party report focussing on consistent performance and problem recognition and solving. A supervisor/third-party report must be prepared by someone who has a direct, relevant, current relationship with the person being assessed and who is in a position to form a judgement on workplace performance relevant to the unit of competency
  - must include facilitating the implementation of a Just in Time (JIT) system in own workplace
  - will typically include the use of appropriate tools, equipment and safety gear requiring demonstration of preparation, operation, completion and responding to problems.

- Assessment should occur in operational workplace situations.
- Knowledge evidence may be collected concurrently with performance evidence (provided a record is kept) or through an independent process such as workbooks, written assessments or interviews (provided a record is kept).
- Assessment processes and techniques must be appropriate to the language, literacy and numeracy requirements of the work being performed and the needs of the candidate.
- Conditions for assessment must include access to all tools, equipment, materials and documentation required, including relevant workplace procedures, product and manufacturing specifications associated with this unit.
- Foundation skills are integral to competent performance of the unit and should not be assessed separately.
- Assessors must satisfy the assessor competency requirements that are in place at the time of the assessment as set by the VET regulator.
- The assessor must demonstrate both technical competency and currency.
- Technical competence can be demonstrated through:
  - relevant VET or other qualification/Statement of Attainment AND/OR
  - relevant workplace experience
- Currency can be demonstrated through:
  - performing the competency being assessed as part of current employment OR
  - having consulted with an organisation providing relevant environmental monitoring, management or technology services about performing the competency being assessed within the last twelve months.

## Links

Companion Volume implementation guides are found in VETNet -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=5b04f318-804f-4dc0-9463-c3fb9a3fe998>

## **MSS403023 Monitor a levelled pull system of operations**

### **Modification History**

Release 1. Supersedes and is equivalent to MSS403023A Monitor a levelled pull system of operations

### **Application**

This unit of competency covers the skills and knowledge required to monitor the operation of a pull system in a work area and recommend improvements.

This unit covers the skills needed to monitor a pull operations system in a work area or team operation although knowledge of the overall pull system in the enterprise is also required. The unit is targeted at individuals, such as team leaders and senior operators, who have an overview of the work area or team operation and the ability to implement corrective action in the event of discrepancies.

The unit covers the skills needed to monitor daily working of the system, identify problems and take action on problems. The operations system may be a total demand pull system or it may be a mixed push/pull system.

This unit primarily requires the application of skills associated with using information and problem solving skills to monitor pull system and analyse discrepancies. It also requires skills in initiative and enterprise, and planning and organising to determine and act on opportunities for improvement. Aspects of self-management and learning are required to ensure own ability to improve systems.

The unit is based on manufacturing principles but can be contextualised for other types of organisations.

No licensing, legislative or certification requirements apply to this unit at the time of publication.

### **Pre-requisite Unit**

Nil

### **Competency Field**

Competitive systems and practices

## Unit Sector

Not applicable

## Elements and Performance Criteria

Elements describe the essential outcomes.

Performance criteria describe the performance needed to demonstrate achievement of the element.

- |   |                                     |     |   |
|---|-------------------------------------|-----|---|
| 1 | <b>Monitor the pull system</b>      | 1.1 | Identify the pacemaker process.   |
|   |                                     | 1.2 | Identify rate of production set by the pull system.   |
|   |                                     | 1.3 | Determine actual rate of production at key parts of the process.                                |
|   |                                     | 1.4 | Identify types of inventories within process.   |
|   |                                     | 1.5 | Compare actual inventories with planned inventories.  |
|   |                                     | 1.6 | Note discrepancies between actual and planned rates and inventories.                            |
|   |                                     |     |   |
| 2 | <b>Take corrective action</b>       | 2.1 | Determine causes of discrepancies.  |
|   |                                     | 2.2 | Determine action required to rectify causes of discrepancies.                                   |
|   |                                     | 2.3 | Take action in conjunction with relevant stakeholders.  |
|   |                                     |     |   |
| 3 | <b>Test/improve the pull system</b> | 3.1 | Identify recurrent discrepancies.   |
|   |                                     | 3.2 | Determine causes of discrepancies.  |
|   |                                     | 3.3 | Determine action required to rectify cause.   |
|   |                                     | 3.4 | Identify unnecessary levels of inventories.   |
|   |                                     | 3.5 | Discuss impacts of reduced inventories with relevant stakeholders.                              |
|   |                                     | 3.6 | Take/initiate action to rectify recurrent discrepancies/reduce levels of unnecessary inventory. |

### 3.7 Monitor the system to determine the effects of changes.

## Foundation Skills

This section describes those required skills (language, literacy and numeracy) that are essential to performance.

Foundation skills essential to performance are explicit in the performance criteria of this unit of competency.

## Range of Conditions

This field allows for different work environments and conditions that may affect performance. Essential operating conditions that may be present (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) are included.

- Competitive systems and practices include one or more of:**
- lean operations
  - agile operations
  - preventative and predictive maintenance approaches
  - statistical process control systems, including six sigma and three sigma
  - Just in Time (JIT), kanban and other pull-related operations control systems
  - supply, value, and demand chain monitoring and analysis
  - 5S
  - continuous improvement (kaizen)
  - breakthrough improvement (kaizen blitz)
  - cause/effect diagrams
  - overall equipment effectiveness (OEE)
  - takt time
  - process mapping
  - problem solving
  - run charts
  - standard procedures
  - current reality tree.
- Pull system includes one or more of:**
- operations done to order and not for holding large inventories of parts and completed stock
  - work flow done according to demand pull from the next work



- stage
  - operations in response to customer demand.
- Production used in a manufacturing sense includes one or more of:**
  - repetitive production of items (e.g. components and whitegoods)
  - continuous or batch production (e.g. hydrocarbons, chemicals and cement).
- Types of inventories include one or more of:**
  - cycle stock which reflects the replenishment quantity and frequency
  - buffer stock to meet demand variability and forecast errors
  - safety stock required to guard against quality and delivery failures upstream.
- Determine cause for an individual/team leader includes one or more of:**
  - analysing cause themselves
  - identifying that expert analysis is required and requesting this analysis
  - setting up an improvement team to analyse cause
  - identifying that the cause of the discrepancy is upstream or downstream of the team or area.
- Stakeholders include one or more of:**
  - managers
  - supervisors
  - employees
  - shareholders
  - work health and safety (WHS) mechanisms/representatives
  - industrial relations mechanisms/representatives
  - suppliers
  - customers
  - service providers.

## Unit Mapping Information

Release 1. Supersedes and is equivalent to MSS403023A Monitor a levelled pull system of operations

## Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=5b04f318-804f-4dc0-9463-c3fb9a3fe998>

# **Assessment Requirements for MSS403023 Monitor a levelled pull system of operations**

## **Modification History**

Release 1. Supersedes and is equivalent to MSS403023A Monitor a levelled pull system of operations

## **Performance Evidence**

Evidence required to demonstrate competence in this unit must be relevant to and satisfy the requirements of the elements and performance criteria and include the ability, for three (3) or more monitored discrepancies/problems, to:

- identify the demand pull system used in own work area
- identify pacemaker process
- identify types of inventories used by team or work area
- determine actions to rectify discrepancies between actual and planned rates of production
- facilitate and monitor changes to rectify discrepancies.

## **Knowledge Evidence**

Must provide evidence that demonstrates knowledge relevant to their job role sufficient to fulfil their job role independently, including:

- operation and capabilities of equipment used in own work area
- abilities and skills of personnel in work area
- ultimate customer order process and relationship to demand pull for team or work area
- inventories held by enterprise
- stakeholders relevant to team or work area
- possible actions available to address discrepancies

## **Assessment Conditions**

- The unit should be assessed holistically and the judgement of competence shall be based on a holistic assessment of the evidence.
- The collection of performance evidence:
  - should occur over a range of situations which include typical disruptions to normal, smooth operation of the workplace
  - will typically include a supervisor/third-party report focussing on consistent performance and problem recognition and solving. A supervisor/third-party report must be prepared by someone who has a direct, relevant, current relationship with the person being assessed and who is in a position to form a judgement on workplace performance relevant to the unit of competency
  - must include monitoring the operation of a pull system in own workplace

- will typically include the use of appropriate tools, equipment and safety gear requiring demonstration of preparation, operation, completion and responding to problems.
- Assessment should occur in operational workplace situations.
- Knowledge evidence may be collected concurrently with performance evidence (provided a record is kept) or through an independent process such as workbooks, written assessments or interviews (provided a record is kept).
- Assessment processes and techniques must be appropriate to the language, literacy and numeracy requirements of the work being performed and the needs of the candidate.
- Conditions for assessment must include access to all tools, equipment, materials and documentation required, including relevant workplace procedures, product and manufacturing specifications associated with this unit.
- Foundation skills are integral to competent performance of the unit and should not be assessed separately.
- Assessors must satisfy the assessor competency requirements that are in place at the time of the assessment as set by the VET regulator.
- The assessor must demonstrate both technical competency and currency.
- Technical competence can be demonstrated through:
  - relevant VET or other qualification/Statement of Attainment AND/OR
  - relevant workplace experience
- Currency can be demonstrated through:
  - performing the competency being assessed as part of current employment OR
  - having consulted with an organisation providing relevant environmental monitoring, management or technology services about performing the competency being assessed within the last twelve months.

## Links

Companion Volume implementation guides are found in VETNet -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=5b04f318-804f-4dc0-9463-c3fb9a3fe998>

## **MSS403030 Improve cost factors in work practices**

### **Modification History**

Release 1. Supersedes and is equivalent to MSS403030A Improve cost factors in work practices

### **Application**

This unit of competency covers the skills and knowledge required by an individual to evaluate the product or process outcomes of a team or work group in terms of their cost components and to be able to determine, in general terms, the cost impacts of alternative actions.

Typical decisions include the efficient organisation of own work and that of others in a work area or within a team/group and the improvement of throughput and cycle times.

Decisions are made within the scope of the authority of the individual and other employees in the area or team/group and according to procedures.

This unit primarily requires the application of skills associated with communication and information gathering, teamwork and problem solving to analyse the cost components of work processes. Initiative and enterprise, and planning and organising are also required to identify opportunities for improved cost-efficiency. This unit also requires a degree of self-management and learning to effectively operate and maintain skills and performance.

No licensing, legislative or certification requirements apply to this unit at the time of publication.

### **Pre-requisite Unit**

Nil

### **Competency Field**

Competitive systems and practices

### **Unit Sector**

Not applicable

## Elements and Performance Criteria

Elements describe the essential outcomes.

Performance criteria describe the performance needed to demonstrate achievement of the element.

1	<b>Analyse cost components of work area or team function</b>	1.1	Identify cost components in the product or process.
		1.2	Identify costs factors under control of area or employees in the team.
		1.3	Identify causes of variability in costs.
		1.4	Analyse impact of costs on production or process activities undertaken.
2	<b>Improve cost-efficiency of processes and procedures</b>	2.1	Identify methods of improving productivity and/or reducing costs within area or team's responsibility.
		2.2	Determine cost/benefit ratio of alternative methods of improving productivity and/or reducing costs.
		2.3	Consult with all relevant stakeholders regarding possible changes.
		2.4	Recommend changes which will increase productivity and reduce cost and variability.
		2.5	Implement recommended changes in consultation with relevant stakeholders.

## Foundation Skills

This section describes those required skills (language, literacy and numeracy) that are essential to performance.

Foundation skills essential to performance are explicit in the performance criteria of this unit of competency.

## Range of Conditions

This field allows for different work environments and conditions that may affect performance. Essential operating conditions that may be present (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional

contexts) are included.

**Competitive systems and practices include one or more of:**

- lean operations
- agile operations
- preventative and predictive maintenance approaches
- statistical process control systems, including six sigma and three sigma
- Just in Time (JIT), kanban and other pull-related operations control systems
- supply, value, and demand chain monitoring and analysis
- 5S
- continuous improvement (kaizen)
- breakthrough improvement (kaizen blitz)
- cause/effect diagrams
- overall equipment effectiveness (OEE)
- takt time
- process mapping
- problem solving
- run charts
- standard procedures
- current reality tree.

**Cost components include consideration of all of:**

- fixed and variable costs, such as power/energy, materials and other inputs, plant and equipment, salary and wages, and office expenses (e.g. telephone)
- government taxes and charges.

**Causes of variability in costs include one or more of:**

- time-based variation
- fluctuations in variable costs related to different volumes of sales, production or operations
- fluctuations in fixed/overhead costs related to changes in the economy, financial markets and similar
- abnormal cost fluctuations due to poor design of product or process, poor scheduling, faults, breakdowns and other muda (waste).

**Process includes consideration of all of:**

- all functions that go to meet customer requirements
- all other required functions (e.g. regulatory related functions)
- design
- production
- maintenance
- logistics

- office processes.

**Procedures  
(written, verbal,  
visual, computer  
based, etc.) include  
one or any  
combination of:**

- work instructions
- standard operating procedures (SOPs)
- safe work method statements
- formulas/recipes
- batch sheets
- temporary instructions
- any similar instructions provided for the smooth running of the plant.

**Benefits include all  
of:**

- positive benefits
- negative benefits
- quality
- safety
- reliability
- similar issues which may be impacted by a cost saving.

## Unit Mapping Information

Release 1. Supersedes and is equivalent to MSS403030A Improve cost factors in work practices

## Links

Companion Volume implementation guides are found in VETNet -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=5b04f318-804f-4dc0-9463-c3fb9a3fe998>



# Assessment Requirements for MSS403030 Improve cost factors in work practices

## Modification History

Release 1. Supersedes and is equivalent to MSS403030A Improve cost factors in work practices

## Performance Evidence

Evidence required to demonstrate competence in this unit must be relevant to and satisfy the requirements of the elements and performance criteria and include the ability to improve cost factors on one (1) or more occasion and to:

- analyse cost components
- improve cost efficiency in an area related to own work
- express cost factors in specific terms, such as cost per item, per unit of time or other measures of output.

## Knowledge Evidence

Must provide evidence that demonstrates knowledge relevant to their job role sufficient to fulfil their job role independently, including:

- cost components of products made
- costs concepts, such as expense/capital, income and benefit/cost ratios
- major cost contributors to product (e.g. energy, materials/other inputs, labour and distribution, and so on depending on the product and process)
- distinguish between internally and externally controlled costs
- distinguish between overhead/capital, expense, labour and other consumables.

## Assessment Conditions

- The unit should be assessed holistically and the judgement of competence shall be based on a holistic assessment of the evidence.
- The collection of performance evidence is best done from a report and/or folio of evidence drawn from:
  - a single project which provides sufficient evidence of the requirements of all the elements and performance criteria
  - multiple smaller projects which together provide sufficient evidence of the requirements of all the elements and performance criteria.
- A third-party report, or similar, may be needed to testify to the work done by the individual, particularly when the project has been done as part of a project team.
- Assessment should use a real cost improvement activity in an operational workplace.

- Knowledge evidence may be collected concurrently with performance evidence or through an independent process such as workbooks, written assessments or interviews (provided a record is kept).
- Assessment processes and techniques must be appropriate to the language, literacy and numeracy requirements of the work being performed and the needs of the candidate.
- Conditions for assessment must include access to all tools, equipment, materials and documentation required, including relevant workplace procedures, product and manufacturing specifications associated with this unit.
- Foundation skills are integral to competent performance of the unit and should not be assessed separately.
- Assessors must satisfy the assessor competency requirements that are in place at the time of the assessment as set by the VET regulator.
- The assessor must demonstrate both technical competency and currency.
- Technical competence can be demonstrated through:
  - relevant VET or other qualification/Statement of Attainment AND/OR
  - relevant workplace experience
- Currency can be demonstrated through:
  - performing the competency being assessed as part of current employment OR
  - having consulted with an organisation providing relevant environmental monitoring, management or technology services about performing the competency being assessed within the last twelve months.

## Links

Companion Volume implementation guides are found in VETNet -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=5b04f318-804f-4dc0-9463-c3fb9a3fe998>

## MSS403032 Analyse manual handling processes

### Modification History

Release 1. Supersedes and is equivalent to MSS403032A Analyse manual handling processes

### Application

This unit of competency covers the skills and knowledge required to analyse manual handling in terms of its efficiency and safety.

This unit applies to an individual who is required to examine the manual handling component of a job and improve it in terms of safety, effort required and efficiency. This may be conducted for a job performed by others or it may be for the person's own job.

This unit primarily requires the application of skills associated with problem solving, initiative and enterprise to identify safe and efficient manual handling, and planning and organising to ensure processes are implemented. This unit also requires communication with, and involvement of, others to ensure they understand the approach and to facilitate training.

No licensing, legislative or certification requirements apply to this unit at the time of publication.

### Pre-requisite Unit

Nil

### Competency Field

Competitive systems and practices

### Unit Sector

Not applicable

### Elements and Performance Criteria

Elements describe the essential outcomes.

Performance criteria describe the performance needed to demonstrate achievement of the element.

- |   |                      |     |  |
|---|----------------------|-----|--|
| 1 | <b>Assess manual</b> | 1.1 | Identify manual handling hazards in work area. |
|---|----------------------|-----|--|

	<b>handling risks</b>	1.2	Assess risks arising from manual handling hazards.
2	<b>Analyse physical effort requirements of job</b>	2.1	Determine basic manual handling requirements of job.
		2.2	Analyse requirements in terms of components, such as lift, move, place and hold.
		2.3	Analyse items to be handled in terms such as weight, size, shape or other hazards.
3	<b>Determine time/effort components of physical effort</b>	3.1	Break required movement pattern down into movement components.
		3.2	Determine time and effort requirements for movements.
		3.3	Develop alternative movement patterns.
		3.4	Determine time and effort requirements for alternative movements.
		3.5	Determine handling aids required to assist movement.
		3.6	Determine preferred movement pattern.
4	<b>Analyse the ergonomics of physical effort</b>	4.1	Analyse the ergonomics of the preferred movement pattern.
		4.2	Develop substitute movements for any movement which is not ergonomically sound.
		4.3	Determine handling aids required to improve ergonomics of required movements.
5	<b>Optimise application of physical effort</b>	5.1	Select movement patterns which are ergonomically sound and time and effort efficient.
		5.2	Ensure all relevant people are trained to use these methods.
		5.3	Ensure procedures and practices reflect the optimum methods.

- 5.4 Communicate with team members and involve them in development of alternatives to ensure awareness and facilitate learning.

## Foundation Skills

This section describes those required skills (language, literacy and numeracy) that are essential to performance.

Foundation skills essential to performance are explicit in the performance criteria of this unit of competency.

## Range of Conditions

This field allows for different work environments and conditions that may affect performance. Essential operating conditions that may be present (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) are included.

- Competitive systems and practices include one or more of:**
- lean operations
  - agile operations
  - preventative and predictive maintenance approaches
  - statistical process control systems, including six sigma and three sigma
  - Just in Time (JIT), kanban and other pull-related operations control systems
  - supply, value, and demand chain monitoring and analysis
  - 5S
  - continuous improvement (kaizen)
  - breakthrough improvement (kaizen blitz)
  - cause/effect diagrams
  - overall equipment effectiveness (OEE)
  - takt time
  - process mapping
  - problem solving
  - run charts
  - standard procedures
  - current reality tree.

- Procedures (written, •** work instructions

**verbal, visual, computer based, etc.) include one or more of:**

- standard operating procedures (SOPs)
- safe work method statements
- formulas/recipes
- batch sheets
- temporary instructions
- any similar instructions provided for the smooth running of the plant.

**Manual handling hazards include one or more of**

- loads that pose a risk of injury
- ergonomically unsound movements
- hazard requirements as defined by relevant work health and safety (WHS) Acts and regulations, industry standards and best practice.

**Ergonomically unsound movements include one or more of**

- awkward and repetitive movements
- carrying, pushing, pulling or lifting of heavy loads
- carrying or movement of hard, sharp, slippery or other difficult to grasp loads.

**Ergonomically sound movements include one or more of**

- keeping loads close to the body and near the person's centre of gravity
- using diagonal foot positions for lifting
- moving loads at waist height rather than directly from the floor.

## Unit Mapping Information

Release 1. Supersedes and is equivalent to MSS403032A Analyse manual handling processes

## Links

Companion Volume implementation guides are found in VETNet -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=5b04f318-804f-4dc0-9463-c3fb9a3fe998>

# **Assessment Requirements for MSS403032 Analyse manual handling processes**

## **Modification History**

Release 1. Supersedes and is equivalent to MSS403032A Analyse manual handling processes

## **Performance Evidence**

Evidence required to demonstrate competence in this unit must be relevant to and satisfy the requirements of the elements and performance criteria and include the ability, for at least (1) one job/process, to:

- analyse manual handling requirements and risks
- distinguish between ergonomically sound and unsound movement
- analyse manual handling movements and risks for an individual
- relate manual handling requirements to job efficiency.

## **Knowledge Evidence**

- Must provide evidence that demonstrates knowledge relevant to their job role sufficient to fulfil their job role independently, including:
- principles of ergonomics/safe movement
- principles of work analysis
- relevant work health and safety (WHS) Acts and regulations as they apply to manual handling
- principles of job and work method design as applied to efficient and safe movement
- aids that can assist with or substitute for manual handling.

## **Assessment Conditions**

- The unit should be assessed holistically and the judgement of competence shall be based on a holistic assessment of the evidence.
- The collection of performance evidence:
  - should occur over a range of situations which include typical disruptions to normal, smooth operation of the workplace
  - will typically include a supervisor/third-party report focussing on consistent performance and problem recognition and solving. A supervisor/third-party report must be prepared by someone who has a direct, relevant, current relationship with the person being assessed and who is in a position to form a judgement on workplace performance relevant to the unit of competency
  - must include analysing manual handling processes in own workplace

- will typically include the use of appropriate manual handling guides, tools, equipment and safety gear requiring demonstration of preparation, operation, completion and responding to problems.
- Assessment should occur in operational workplace situations.
- Knowledge evidence may be collected concurrently with performance evidence (provided a record is kept) or through an independent process such as workbooks, written assessments or interviews (provided a record is kept).
- Assessment processes and techniques must be appropriate to the language, literacy and numeracy requirements of the work being performed and the needs of the candidate.
- Conditions for assessment must include access to all tools, equipment, materials and documentation required, including relevant workplace procedures, product and manufacturing specifications associated with this unit.
- Foundation skills are integral to competent performance of the unit and should not be assessed separately.
- Assessors must satisfy the assessor competency requirements that are in place at the time of the assessment as set by the VET regulator.
- The assessor must demonstrate both technical competency and currency.
- Technical competence can be demonstrated through:
  - relevant VET or other qualification/Statement of Attainment AND/OR
  - relevant workplace experience
- Currency can be demonstrated through:
  - performing the competency being assessed as part of current employment OR
  - having consulted with an organisation providing relevant environmental monitoring, management or technology services about performing the competency being assessed within the last twelve months.

## Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=5b04f318-804f-4dc0-9463-c3fb9a3fe998>



## **MSS403040 Facilitate and improve implementation of 5S**

### **Modification History**

Release 1. Supersedes and is equivalent to MSS403040A Facilitate and improve implementation of 5S

### **Application**

This unit of competency covers the skills and knowledge required by an individual to facilitate the implementation and improvement of the 5S by self and others in a team or work area. The facilitation may be undertaken by formally designated supervisory staff, such as team leaders or other individuals in a competitive systems and practices implementation role, who need to provide support and encouragement to others to facilitate the achievement of 5S outcomes in the workplace.

This unit requires the application of skills associated with communication, teamwork, problem solving, initiative and enterprise, planning and organising, and self-management in order to provide leadership in a 5S environment. This unit has a strong emphasis on planning and change management, but also requires an ability to learn from experience and feed new information back into strategies to improve performance.

No licensing, legislative or certification requirements apply to this unit at the time of publication.

### **Pre-requisite Unit**

Nil

### **Competency Field**

Competitive systems and practices

### **Unit Sector**

Not applicable

### **Elements and Performance Criteria**

Elements describe the essential outcomes.

Performance criteria describe the performance needed to demonstrate achievement of the element.

- |   |  |   |
|---|--|---|
| 1 | <b>Facilitate the set-up of 5S</b>         | <div style="padding-left: 20px;"><div>1.1 Assist others to determine what are necessary and unnecessary items in the work area.</div><div>1.2 Assist others to determine optimum assigned location for all necessary items.</div><div>1.3 Liaise with relevant production and work health and safety (WHS) personnel in determining optimum locations.</div><div>1.4 Assist others to determine optimum location for unnecessary items.</div><div>1.5 Assist others to determine 5S schedule.</div><div>1.6 Assist others to achieve the required level of skill.</div></div> |
| 2 | <b>Facilitate the implementation of 5S</b> | <div style="padding-left: 20px;"><div>2.1 Ensure procedures reflect 5S practices.</div><div>2.2 Assess skill base of team or work group members in 5S and arrange for any required training.</div><div>2.3 Ensure that any damage and/or safety risks reported by the team or work group are addressed through correct mechanisms.</div></div>  |
| 3 | <b>Monitor 5S</b>                          | <div style="padding-left: 20px;"><div>3.1 Check work area for 5S implementation as part of normal routine.</div><div>3.2 Identify non-conformances.</div><div>3.3 Negotiate solutions to non-conformances.</div></div>  |
| 4 | <b>Improve 5S</b>                          | <div style="padding-left: 20px;"><div>4.1 Work with others to find areas for improvement.</div><div>4.2 Assist others to develop improvement solutions.</div><div>4.3 Facilitate the availability of resources required for the improvement solution.</div><div>4.4 Facilitate the implementation of the improvement solution.</div></div>  |

## Foundation Skills

This section describes those required skills (language, literacy and numeracy) that are essential to performance.

Foundation skills essential to performance are explicit in the performance criteria of this unit of competency.

## Range of Conditions

This field allows for different work environments and conditions that may affect performance. Essential operating conditions that may be present (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) are included.

- Competitive systems and practices include one or more of:**
- lean operations
  - agile operations
  - preventative and predictive maintenance approaches
  - statistical process control systems, including six sigma and three sigma
  - Just in Time (JIT), kanban and other pull-related operations control systems
  - supply, value, and demand chain monitoring and analysis
  - 5S
  - continuous improvement (kaizen)
  - breakthrough improvement (kaizen blitz)
  - cause/effect diagrams
  - overall equipment effectiveness (OEE)
  - takt time
  - process mapping
  - problem solving
  - run charts
  - standard procedures
  - current reality tree.

- Procedures (written, verbal, visual, computer based, etc.) include one or more of:**
- work instructions
  - standard operating procedures (SOPs)
  - safe work method statements
  - formulas/recipes
  - batch sheets
  - temporary instructions
  - any similar instructions provided for the smooth running of the plant.

- 5S includes all of:**
- sort
  - set in order
  - shine
  - standardise
  - sustain.
- Sort includes all of:**
- separating necessary from unnecessary items (equipment and supplies)
  - keeping only what is absolutely necessary for the work processes that comprise the job
  - disposing of (or relocating) all other items.
- Set in order includes all of:**
- assigning required equipment and materials appropriate locations in the work area
  - consideration of frequency of use, ergonomics and WHS
  - provision of facilities to maintain the locations.
- Shine includes one or more of:**
- keeping the work area clean at all times which should be carried out to a regular daily schedule against allowed time, usually at the end of the day or of a particular process
  - keeping work area, including virtual work area, organised
  - noting any signs of wear, damage, leakage, safety risks or other issues that require immediate attention.
- Standardising includes one or more of:**
- activities that help maintain the order and the 5S standards
  - using procedures and checklists developed from a procedure.
- Sustain includes one or more of:**
- making sure that daily activities are completed every day regardless of circumstance
  - undertaking inspections, including:
    - informal inspections that should be carried often, at least weekly
    - formal inspections that should be carried out at least monthly.
- Items in work area include one or more of:**
- office supplies
  - materials
  - paperwork

	<ul style="list-style-type: none"><li>• furniture</li><li>• storage systems and cabinets</li><li>• lighting, wiring, plumbing and other services designed to support a working environment in the office</li><li>• manuals</li><li>• personal items (e.g. bags, phones, lunch boxes, clothing, photos and ornaments)</li><li>• safety and personal protective equipment</li><li>• any other item which happens to be in the work area.</li></ul>
<b>Teams include one or more of:</b>	<ul style="list-style-type: none"><li>• formal teams</li><li>• informal teams</li><li>• people working in the same area.</li></ul>
<b>Target work area may be a physical and/or virtual workspace and includes one or more of:</b>	<ul style="list-style-type: none"><li>• used by a person, a team or a cross-functional group</li><li>• common to part/s of a process or value stream (already defined)</li><li>• shared by people who undertake a defined procedure or set of procedures</li><li>• needed to support a particular function.</li></ul>
<b>Appropriate places include areas designated for one or more of:</b>	<ul style="list-style-type: none"><li>• recycling</li><li>• rubbish removal</li><li>• staff room/lunch room/kitchen</li><li>• office supplies, filing and other storage</li><li>• functions, such as printing/copying</li><li>• holding until status is confirmed.</li></ul>
<b>Optimum assigned location includes:</b>	<ul style="list-style-type: none"><li>• making changes to the layout of furniture, equipment and personnel in order to facilitate the smooth and continuous flow of work through process steps taking into account WHS considerations.</li></ul>
<b>Non-conformance includes:</b>	<ul style="list-style-type: none"><li>• incorrect or incomplete application of 5S procedures, including any daily tasks, scheduled inspections and continuous improvement procedures.</li></ul>

## Unit Mapping Information

Release 1. Supersedes and is equivalent to MSS403040A Facilitate and improve implementation of 5S

## Links

Companion Volume implementation guides are found in VETNet -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=5b04f318-804f-4dc0-9463-c3fb9a3fe998>

# Assessment Requirements for MSS403040 Facilitate and improve implementation of 5S

## Modification History

Release 1. Supersedes and is equivalent to MSS403040A Facilitate and improve implementation of 5S

## Performance Evidence

Evidence required to demonstrate competence in this unit must be relevant to and satisfy the requirements of the elements and performance criteria and include the ability, in one (1) or more allocated areas, to:

- identify the scope of the services and/or functions supplied to and by the team or work area and the deliverables expected by customers, including the ultimate customer
- facilitate a systematic approach to implementing 5S
- lead and motivate others in achieving 5S outcomes and making improvements to the 5S systems
- set up systems for monitoring and improving 5S implementation
- manage non-conformances in implementation of 5S.

## Knowledge Evidence

Must provide evidence that demonstrates knowledge relevant to their job role sufficient to fulfil their job role independently, including:

- principles and purpose of 5S
- methods of identifying waste in the work area, such as:
  - waste walk
  - document tagging
  - tracking/log sheets
  - spaghetti diagrams
  - existing information technology and enterprise resource systems (e.g. SCADA, ERP and MRP)
- methods of identifying and evaluating options
- work health and safety (WHS) requirements relevant to team and work areas
- processes for identifying and addressing skill gaps.

## Assessment Conditions

- The unit should be assessed holistically and the judgement of competence shall be based on a holistic assessment of the evidence.
- The collection of performance evidence:

- should occur over a range of situations which include typical disruptions to normal, smooth operation of the workplace
- will typically include a supervisor/third-party report focussing on consistent performance and problem recognition and solving. A supervisor/third-party report must be prepared by someone who has a direct, relevant, current relationship with the person being assessed and who is in a position to form a judgement on workplace performance relevant to the unit of competency
- must include the implementation of 5S procedures in a work area where 5S has not previously been undertaken, or, demonstration of improving 5S application in a work area that has already undergone prior 5S procedures
- will typically include the use of appropriate tools, equipment and safety gear requiring demonstration of preparation, operation, completion and responding to problems.
- Assessment should occur in operational workplace situations. Knowledge evidence may be collected concurrently with performance evidence (provided a record is kept) or through an independent process such as workbooks, written assessments or interviews (provided a record is kept).
- Assessment processes and techniques must be appropriate to the language, literacy and numeracy requirements of the work being performed and the needs of the candidate.
- Conditions for assessment must include access to all tools, equipment, materials and documentation required, including relevant workplace procedures, product and manufacturing specifications associated with this unit.
- Foundation skills are integral to competent performance of the unit and should not be assessed separately.
- Assessors must satisfy the assessor competency requirements that are in place at the time of the assessment as set by the VET regulator.
- The assessor must demonstrate both technical competency and currency.
- Technical competence can be demonstrated through:
  - relevant VET or other qualification/Statement of Attainment AND/OR
  - relevant workplace experience
- Currency can be demonstrated through:
  - performing the competency being assessed as part of current employment OR
  - having consulted with an organisation providing relevant environmental monitoring, management or technology services about performing the competency being assessed within the last twelve months.

## Links

Companion Volume implementation guides are found in VETNet -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=5b04f318-804f-4dc0-9463-c3fb9a3fe998>



## **MSS403041 Facilitate breakthrough improvements**

### **Modification History**

Release 1. Supersedes and is equivalent to MSS403041A Facilitate breakthrough improvements

### **Application**

This unit of competency covers the knowledge and skills required to facilitate implementation of discrete targeted improvement activities to achieve breakthrough improvements in selected processes, operations or products. Typically this approach is used for improvements in areas of waste identified through value stream mapping.

This unit applies to team leaders and others who are providing guidance and support to assist a team of employees to identify improvements that can be implemented to operations, processes or products in a brief intensive project.

The unit also covers ensuring that the improvements are sustained. The process of achieving breakthrough improvements is often called kaizen blitz in lean terminology.

This unit assumes that one or more processes and operations have been mapped.

No licensing, legislative or certification requirements apply to this unit at the time of publication.

### **Pre-requisite Unit**

Nil

### **Competency Field**

Competitive systems and practices

### **Unit Sector**

Not applicable

## Elements and Performance Criteria

Elements describe the essential outcomes.

Performance criteria describe the performance needed to demonstrate achievement of the element.

- |   |                                      |   |
|---|--------------------------------------|---|
| 1 | <b>Prepare for improvement event</b> | 1.1 Engage team members in the improvement event.<br>1.2 Identify process or processes to be targeted in the improvement event.<br>1.3 Assist team members to identify how their own roles contribute to value to the customer.<br>1.4 Assist team to identify the boundaries of the event, including any imposed exclusions.<br>1.5 Identify key process indicators and other information required for improvement event.<br>1.6 Identify skill needs for personnel engaged in breakthrough improvement event and arrange for any required training.<br>1.7 Establish communication processes with sponsor and stakeholders. |
| 2 | <b>Identify improvements</b>         | 2.1 Assist team to review current processes, operations or products and identify options for radical improvements.<br>2.2 Facilitate team activities and other relevant personnel to evaluate the options and agree on improvements to be made.<br>2.3 Encourage and assist team and others to plan the activities and identify metrics to be monitored.<br>2.4 Facilitate allocation of resources and strategies to manage impact on routine work.   |
| 3 | <b>Facilitate the event</b>          | 3.1 Assist team to gather baseline data on the selected metrics.<br>3.2 Assist team to identify and address barriers to making the improvements.<br>3.3 Monitor team dynamics and facilitate team focus and   |

- cooperation.
- 3.4 Liaise with sponsor to communicate progress and maintain their support.
- 4 **Evaluate improvements**
- 4.1 Assist team to gather and interpret data on the metrics.
- 4.2 Facilitate team activities to evaluate the outcomes of the event.
- 4.3 Identify causes for areas of poor performance from changes and identify any additional changes to address them.
- 4.4 Report to sponsor and other stakeholders on the outcomes of the event.
- 5 **Embed improvements**
- 5.1 Establish mechanisms to ensure new systems and/or practices are communicated to relevant personnel.
- 5.2 Motivate team to apply the new systems and/or practices and sustain improvements.
- 5.3 Ensure the new systems and/or practices are reflected in relevant procedures.

## Foundation Skills

This section describes those required skills (language, literacy and numeracy) that are essential to performance.

Foundation skills essential to performance are explicit in the performance criteria of this unit of competency.

## Range of Conditions

This field allows for different work environments and conditions that may affect performance. Essential operating conditions that may be present (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) are included.

**Competitive systems and practices include one or more of:**

- lean operations
- agile operations
- preventative and predictive maintenance approaches
- statistical process control systems, including six sigma and three sigma
- Just in Time (JIT), kanban and other pull-related operations control systems
- supply, value, and demand chain monitoring and analysis
- 5S
- continuous improvement (kaizen)
- breakthrough improvement (kaizen blitz)
- cause/effect diagrams
- overall equipment effectiveness (OEE)
- takt time
- process mapping
- problem solving
- run charts
- standard procedures
- current reality tree.

**Team in this unit is any group of employees engaged in a breakthrough improvement event and includes one or more of:**

- a permanent formally identified team
- a sub-group of a team
- a formally designated teams
- an informal groups of employees
- other stakeholders who may be brought together for a breakthrough improvement event
- a specially established group for the breakthrough event (e.g. a combined production/administration/ logistics group convened for a breakthrough event addressing delivery issues).

**Scope and benefit statements include one or more of:**

- description of the business
- the target work process
- what key stakeholders seek from the improvement project
- a mission for the event
- a set of goals
- a statement of the do's and don'ts for the improvement project.

**Boundaries define one or more of:**

- the start and end point of the process being targeted
- the steps of the process to be included and excluded
- specific job roles or related processes to be included or excluded
- timeframe for the event.

**Breakthrough improvement (also known as kaizen blitz) is characterised by one or more of:**

- using a formal process
- being a discrete targeted activity that is achieved in a relatively short timeframe
- delivering significant level of improvement.

**Mechanisms to communicate and sustain improvements include one or more of:**

- scheduled audits
- regular monitoring and/or reporting activities
- use of visual aids, such as targets and progress boards, process charts and procedure posters
- communications, such as standing items for team meetings, email reminders or updates.

**Imposed exclusions include one or more of:**

- equipment excluded from efficiency or layout review because of budget constraints
- regulatory requirements that do not add value
- organisation requirements, policies or procedures beyond the influence of the team
- other required muda.

**Key process indicators include one or more of**

- statistical process control data/charts
- orders
- lost time, injury and other work health and safety (WHS) records
- equipment reliability charts.

## Unit Mapping Information

Release 1. Supersedes and is equivalent to MSS403041A Facilitate breakthrough improvements

## Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=5b04f318-804f-4dc0-9463-c3fb9a3fe998>

# **Assessment Requirements for MSS403041 Facilitate breakthrough improvements**

## **Modification History**

Release 1. Supersedes and is equivalent to MSS403041A Facilitate breakthrough improvements

## **Performance Evidence**

Evidence required to demonstrate competence in this unit must be relevant to and satisfy the requirements of the elements and performance criteria and include the ability, for one (1) or more breakthrough improvement events, to:

- interpret operations, processes and products in terms of value to the customer
- identify, analyse and evaluate information from a variety of sources to identify opportunities for breakthrough improvements
- lead and motivate others in planning, implementing and sustaining improvements.

## **Knowledge Evidence**

Must provide evidence that demonstrates knowledge relevant to their job role sufficient to fulfil their job role independently, including:

- team and organisation deliverables and processes used to achieve them
- how organisation operations and processes contribute to the value stream
- types of waste (muda) and imposed exclusions
- methods of identifying and evaluating options
- work health and safety (WHS) requirements relevant to the target work areas.

## **Assessment Conditions**

- The unit should be assessed holistically and the judgement of competence shall be based on a holistic assessment of the evidence.
- The collection of performance evidence is best done from a report and/or folio of evidence drawn from:
  - a single project which provides sufficient evidence of the requirements of all the elements and performance criteria
  - multiple smaller projects which together provide sufficient evidence of the requirements of all the elements and performance criteria.
- A third-party report, or similar, may be needed to testify to the work done by the individual, particularly when the project has been done as part of a project team.
- Assessment should use a real project in an operational workplace.

- Knowledge evidence may be collected concurrently with performance evidence or through an independent process such as workbooks, written assessments or interviews (provided a record is kept).
- Assessment processes and techniques must be appropriate to the language, literacy and numeracy requirements of the work being performed and the needs of the candidate.
- Conditions for assessment must include access to all tools, equipment, materials and documentation required, including relevant workplace procedures, product and manufacturing specifications associated with this unit.
- Foundation skills are integral to competent performance of the unit and should not be assessed separately.
- Assessors must satisfy the assessor competency requirements that are in place at the time of the assessment as set by the VET regulator.
- The assessor must demonstrate both technical competency and currency.
- Technical competence can be demonstrated through:
  - relevant VET or other qualification/Statement of Attainment AND/OR
  - relevant workplace experience
- Currency can be demonstrated through:
  - performing the competency being assessed as part of current employment OR
  - having consulted with an organisation providing relevant environmental monitoring, management or technology services about performing the competency being assessed within the last twelve months.
- 

## Links

Companion Volume implementation guides are found in VETNet -

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## **MSS403051 Mistake proof an operational process**

### **Modification History**

Release 1. Supersedes and is equivalent to MSS403051A Mistake proof an operational process

### **Application**

This unit of competency applies to an individual who needs to analyse a process that a team is responsible for and determine methods of mistake proofing it (e.g. ensuring it only produces product within an acceptable range or error-free transport and storage). The person will typically be a technical expert, team leader or be in a role where they have sufficient technical understanding of processes in their own work and that of others to be able to mistake proof the production process in their area. After improvement activities have been undertaken these improvements need to be sustained.

This unit requires the application of skills associated with information gathering and analysis. Initiative, enterprise and problem solving are also required to identify mistakes and determine strategies for eliminating them. This unit also requires communication and teamwork skills to ensure mistake proofing strategies are implemented and self-management and learning skills to continually reflect on and integrate feedback about the effectiveness of strategies.

No licensing, legislative or certification requirements apply to this unit at the time of publication.

### **Pre-requisite Unit**

Nil

### **Competency Field**

Competitive systems and practices

### **Unit Sector**

Not applicable

### **Elements and Performance Criteria**

Elements describe the essential outcomes.

Performance criteria describe the performance needed to demonstrate achievement of the element.



- |   |  |     |  |
|---|--|-----|--|
| 1 | <b>Analyse process</b>                         | 1.1 | Identify sources of variability/non-conformance in the process.  |
|   |  | 1.2 | Identify critical control points in process.   |
|   |  | 1.3 | Analyse causes of variability/non-conformance.   |
| 2 | <b>Develop preventative techniques/systems</b> | 2.1 | Liaise with team members and other people to develop mistake proof options for performing operation.           |
|   |  | 2.2 | Test and validate mistake proofing options.  |
| 3 | <b>Implement permanent fix</b>                 | 3.1 | Liaise with relevant people to have systems/procedures changed to implement solution.                          |
|   |  | 3.2 | Liaise with relevant people to implement the solution.   |
|   |  | 3.3 | Liaise with relevant people to ensure self and others in the team or work area have an appropriate skills set. |
|   |  | 3.4 | Follow through to ensure implementation occurs.  |
| 4 | <b>Monitor implementation</b>                  | 4.1 | Critically observe the implementation.   |
|   |  | 4.2 | Compare the results of the implementation against the expected outcomes.                                       |
|   |  | 4.3 | Modify solution to improve outcomes.   |
|   |  | 4.4 | Ensure procedures reflect change.  |
|   |  | 4.5 | Ensure training/assessment reflects change.  |
|   |  | 4.6 | Audit change at agreed period/cycle.   |
|   |  | 4.7 | Take action on any observed deviation.   |
| 5 | <b>Seek improvements</b>                       | 5.1 | Observe changes.   |
|   |  | 5.2 | Analyse process again, if required, to ensure improvements are sustained.                                      |

## Foundation Skills

This section describes those required skills (language, literacy and numeracy) that are essential to performance.

Foundation skills essential to performance are explicit in the performance criteria of this unit of competency.

## Range of Conditions

This field allows for different work environments and conditions that may affect performance. Essential operating conditions that may be present (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) are included.

**Competitive systems and practices include one or more of:**

- lean operations
- agile operations
- preventative and predictive maintenance approaches
- statistical process control systems, including six sigma and three sigma
- Just in Time (JIT), kanban and other pull-related operations control systems
- supply, value, and demand chain monitoring and analysis
- 5S
- continuous improvement (kaizen)
- breakthrough improvement (kaizen blitz)
- cause/effect diagrams
- overall equipment effectiveness (OEE)
- takt time
- process mapping
- problem solving
- run charts
- standard procedures
- current reality tree.

**Mistake proofing (baka-yoke or poka-yoke) includes one or more of:**

- eliminating the possibility of an error occurring
- reducing the occurrence of errors and/or to minimise their impact
- eliminating the possibility of the error via changes to the process
- preventing the error from occurring via physical or virtual

barriers

- reducing likelihood of the error by encouraging correct action (e.g. through warning systems)
- mitigating the impact of the error if it does occur.

**Prioritising options for mistake proofing includes one or more of:**

- success rate in eliminating errors
- feasibility
- skills required by employees
- cost
- capacity to reduce waste.

**Procedures (written, verbal, visual, computer based, etc.) include one or any combination of:**

- work instructions
- standard operating procedures (SOPs)
- safe work method statements
- formulas/recipes
- batch sheets
- temporary instructions
- any similar instructions provided for the smooth running of the plant.

## Unit Mapping Information

Release 1. Supersedes and is equivalent to MSS403051A Mistake proof an operational process

## Links

Companion Volume implementation guides are found in VETNet -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=5b04f318-804f-4dc0-9463-c3fb9a3fe998>

# Assessment Requirements for MSS403051 Mistake proof an operational process

## Modification History

Release 1. Supersedes and is equivalent to MSS403051A Mistake proof an operational process

## Performance Evidence

Evidence required to demonstrate competence in this unit must be relevant to and satisfy the requirements of the elements and performance criteria and include the ability to mistake proof (apply baka yoke or poka yoke) on one (1) or more occasions and to:

- analyse causes of variability and non-conformity
- develop and validate baka yoke or poka yoke options
- implement most appropriate option
- monitor the change and seek further improvements.

## Knowledge Evidence

Must provide evidence that demonstrates knowledge relevant to their job role sufficient to fulfil their job role independently, including:

- baka yoke and poka yoke approaches
- factors causing variability in the process and methods of controlling it
- analyse error causes and determine control options
- analyse benefit/cost, feasibility, regulatory compliance and perceived value to the customer
- validation of baka yoke and poka yoke proposals.

## Assessment Conditions

- The unit should be assessed holistically and the judgement of competence shall be based on a holistic assessment of the evidence.
- The collection of performance evidence is best done from a report and/or folio of evidence drawn from:
  - a single project which provides sufficient evidence of the requirements of all the elements and performance criteria
  - multiple smaller projects which together provide sufficient evidence of the requirements of all the elements and performance criteria.
- A third-party report, or similar, may be needed to testify to the work done by the individual, particularly when the project has been done as part of a project team.
- Assessment should use a real mistake proofing project in an operational workplace.

- Knowledge evidence may be collected concurrently with performance evidence or through an independent process such as workbooks, written assessments or interviews (provided a record is kept).
- Assessment processes and techniques must be appropriate to the language, literacy and numeracy requirements of the work being performed and the needs of the candidate.
- Conditions for assessment must include access to all tools, equipment, materials and documentation required, including relevant workplace procedures, product and manufacturing specifications associated with this unit.
- Foundation skills are integral to competent performance of the unit and should not be assessed separately.
- Assessors must satisfy the assessor competency requirements that are in place at the time of the assessment as set by the VET regulator.
- The assessor must demonstrate both technical competency and currency.
- Technical competence can be demonstrated through:
  - relevant VET or other qualification/Statement of Attainment AND/OR
  - relevant workplace experience
- Currency can be demonstrated through:
  - performing the competency being assessed as part of current employment OR
  - having consulted with an organisation providing relevant environmental monitoring, management or technology services about performing the competency being assessed within the last twelve months.

## Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=5b04f318-804f-4dc0-9463-c3fb9a3fe998>

## **MSS403085 Ensure process improvements are sustained**

### **Modification History**

Release 1. Updated unit code. Changes to performance criteria. Range of conditions removed. Assessment requirements amended. Equivalent outcome.

### **Application**

This unit describes the skills and knowledge required to ensure that the gains which have been made by using improved methods, processes and/or equipment are sustained as the new baseline or standard for an area of work and so prevent regression to former practices, or digression to less efficient practices.

This unit applies to individuals working in a team or work area who have already implemented competitive systems and practices related improvements in their own work and who must work effectively with others implementing competitive systems and practices to ensure that performance improvement gains are sustained.

The unit applies to team leaders, senior operators, technicians or tradespeople who are required to mentor others and integrate the application of their technical skills with the implementation of competitive systems and practices in an organisation. Employees will be required to problem solve, show initiative, plan, organise and manage own output and development.

The unit applies to all areas of an organisation, including production, maintenance, logistics and office functions.

No licensing or certification requirements exist at the time of publication. Relevant legislation, industry standards and codes of practice within Australia must be applied.

### **Pre-requisite Unit**

Nil

### **Competency Field**

Competitive systems and practices

### **Unit Sector**

Not applicable

## Elements and Performance Criteria

Elements describe the essential outcomes.

Performance criteria describe the performance needed to demonstrate achievement of the element.

- |   |  |  |
|---|--|--|
| 1 | <b>Examine previous improvements</b>             | 1.1 Identify impact of previous process improvements to systems, equipment, operations or products in work area  |
|   |  | 1.2 Identify previous improvements that have not met objectives  |
|   |  |  |
| 2 | <b>Ensure corrective actions are implemented</b> | 2.1 Identify corrective actions that can be taken on process improvements that have not met objectives   |
|   |  | 2.2 Liaise with relevant people associated with the anticipated corrective action  |
|   |  | 2.3 Obtain any required approvals  |
|   |  | 2.4 Arrange for the supply of resources  |
|   |  | 2.5 Check impacts of corrective action on work health and safety (WHS), quality and environmental systems in work area and take action in accordance with procedures |
|   |  | 2.6 Check that self and others in team or work area have required skills for corrective actions  |
|   |  | 2.7 Monitor implementation of corrective action  |
|   |  | 2.8 Make required adjustments  |
|   |  |  |
| 3 | <b>Verify systems support improvement</b>        | 3.1 Verify procedures reflect improvements   |
|   |  | 3.2 Check that training and assessment activities in team or work area reflect improvements  |
|   |  | 3.3 Liaise with relevant people to ensure their support of the new or modified system/s  |
|   |  |  |
| 4 | <b>Audit the change</b>                          | 4.1 Determine an audit period or cycle   |
|   |  | 4.2 Agree measures and indicators for the improvement  |

Elements describe the essential outcomes.

Performance criteria describe the performance needed to demonstrate achievement of the element.

- 4.3 Measure performance at agreed times using agreed measures
- 4.4 Investigate causes of under-performance
- 4.5 Take corrective action to improve performance
- 4.6 Re-audit the improvement on an agreed basis

## Foundation Skills

This section describes those language, literacy, numeracy and employment skills that are essential to performance.

Foundation skills essential to performance are explicit in the performance criteria of this unit of competency.

## Unit Mapping Information

Release 1. Supersedes and is equivalent to MSS403002 Ensure process improvements are sustained.

## Links

The MSS Sustainability Companion Volume implementation Guides are available from VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=5b04f318-804f-4dc0-9463-c3fb9a3fe998>



## **Assessment Requirements for MSS403085 Ensure process improvements are sustained**

### **Modification History**

Release 1. Updated unit code. Changes to performance criteria. Range of conditions removed. Assessment requirements amended. Equivalent outcome.

### **Performance Evidence**

There must be evidence the candidate has completed the tasks outlined in the elements and performance criteria of this unit, and:

- identified at least 1 previous improvement that has not met objectives and identified and implemented actions to correct this without adverse impact on other areas
- conducted at least 1 audit to measure the improvement from the change.

### **Knowledge Evidence**

There must be evidence the candidate has knowledge of:

- muda and its causes
- processes and procedures for the organisation relevant to the work area
- sustaining approaches, including poka yoke, baka yoke
- measures of performance relevant to the work area and the improvement.

### **Assessment Conditions**

Skills must have been demonstrated in the workplace or in a simulated environment that reflects workplace conditions, contingencies, facilities, equipment and resources.

Assessors must satisfy the NVR/AQTF mandatory competency requirements for assessors.

### **Links**

The MSS Sustainability Companion Volume implementation Guides are available from VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=5b04f318-804f-4dc0-9463-c3fb9a3fe998>

# MSS403087 Mistake proof an operational process

## Modification History

Release 1. Updated unit code. Changes to elements and performance criteria. Range of conditions removed. Assessment requirements amended. Equivalent outcome.

## Application

This unit describes the skills and knowledge to analyse a process that a team is responsible for and determine methods of mistake proofing it. This includes determining, implementing and sustaining improvement activities.

The person will typically be a technical expert, team leader or be in a role where they have sufficient technical understanding of processes in their own work and that of others to be able to mistake proof the production process in their area.

No licensing or certification requirements exist at the time of publication. Relevant legislation, industry standards and codes of practice within Australia must be applied.

## Pre-requisite Unit

Nil

## Competency Field

Competitive systems and practices

## Unit Sector

Not applicable

## Elements and Performance Criteria

Elements describe the essential outcomes.

Performance criteria describe the performance needed to demonstrate achievement of the element.

- |                          |   |
|--------------------------|---|
| <b>1 Analyse process</b> | <b>1.1</b> Identify sources of variability and non-conformance in the process |
|                          | <b>1.2</b> Identify critical control points in process                        |
|                          | <b>1.3</b> Analyse causes of variability and non-conformance                  |

Elements describe the essential outcomes.		Performance criteria describe the performance needed to demonstrate achievement of the element.	
2	<b>Develop preventative options</b>	2.1	Liaise with team members and other people to develop mistake proof options for performing operation
		2.2	Test and validate mistake proofing options
3	<b>Implement permanent fix</b>	3.1	Liaise with relevant people to have systems and procedures changed to implement solution
		3.2	Liaise with relevant people to implement the solution
		3.3	Liaise with relevant people to ensure self and others in the team or work area have appropriate skills
		3.4	Follow through to ensure implementation occurs
4	<b>Monitor implementation</b>	4.1	Critically observe the implementation
		4.2	Compare the results of the implementation against the expected outcomes
		4.3	Modify solution to improve outcomes
		4.4	Confirm procedures reflect change
		4.5	Confirm training and assessment reflects change
		4.6	Audit change at agreed period or cycle
		4.7	Address any observed deviation
5	<b>Seek improvements</b>	5.1	Observe and monitor changes
		5.2	Analyse process again to ensure improvements are sustained

## Foundation Skills

This section describes those language, literacy, numeracy and employment skills that are essential to performance.

Foundation skills essential to performance are explicit in the performance criteria of this unit of competency.

## **Unit Mapping Information**

Release 1. Supersedes and is equivalent to MSS403051 Mistake proof an operational process.

## **Links**

The MSS Sustainability Companion Volume implementation Guides are available from VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=5b04f318-804f-4dc0-9463-c3fb9a3fe998>

# Assessment Requirements for MSS403087 Mistake proof an operational process

## Modification History

Release 1. Updated unit code. Changes to elements and performance criteria. Range of conditions removed. Assessment requirements amended. Equivalent outcome.

## Performance Evidence

There must be evidence the candidate has completed the tasks outlined in the elements and performance criteria of this unit, and:

- mistake proofed (applied baka yoke or poka yoke) to at least 1 operational process.

## Knowledge Evidence

There must be evidence the candidate has knowledge of:

- baka yoke and poka yoke approaches
- factors causing variability in the process and methods of controlling it
- error causes and control options
- cost benefit analysis, feasibility, regulatory compliance and perceived value to the customer
- validation of baka yoke and poka yoke proposals.

## Assessment Conditions

Skills must have been demonstrated in the workplace or in a simulated environment that reflects workplace conditions, contingencies, facilities, equipment and resources.

Assessors must satisfy the NVR/AQTF mandatory competency requirements for assessors.

## Links

The MSS Sustainability Companion Volume implementation Guides are available from VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=5b04f318-804f-4dc0-9463-c3fb9a3fe998>

## **MSS404050 Undertake process capability improvements**

### **Modification History**

Release 1. Supersedes and is equivalent to MSS404050A Undertake process capability improvements

### **Application**

This unit of competency covers the skills and knowledge required to make process capability improvements, including analysing data from the process, developing improvements to eliminate variation due to assignable causes, and then implementing actions.

This unit applies to a person who reviews a range of process capability data and information, makes/arranges for changes to be made to procedures, equipment or process and then recalculates the process capability and monitors resulting improvement actions. The person will typically be a technical expert, team leader or be in a role where they have sufficient technical understanding of processes in their own work and that of others to be able to suggest and justify process capability improvements.

Process capability may have been determined using either a six sigma or three sigma processes. This unit applies to the application of statistical methods and the determination of capability based on those methods.

This unit primarily requires the application of skills associated with communication, information gathering and analysis. Initiative, enterprise and problem solving are also required to identify opportunities to improve process capacity. This unit also requires aspects of self-management and learning to validate own analysis.

No licensing, legislative or certification requirements apply to this unit at the time of publication.

### **Pre-requisite Unit**

Nil

### **Competency Field**

Competitive systems and practices

## Unit Sector

Not applicable

## Elements and Performance Criteria

Elements describe the essential outcomes.

Performance criteria describe the performance needed to demonstrate achievement of the element.

1	<b>Obtain required data</b>	1.1	Identify process for study.
		1.2	Obtain/organise process to obtain required data/information.
2	<b>Analyse information</b>	2.1	Analyse data and determine assignable causes.
		2.2	Develop possible improvements to eliminate assignable causes.
		2.3	Incorporate own experience and learning into proposed process improvement proposals.
		2.4	Develop process improvement proposals.
3	<b>Improve process capability</b>	3.1	Obtain required authorisations to implement improvements.
		3.2	Liaise with relevant people to implement improvements.
		3.3	Obtain/organise required data for improved process.
		3.4	Recalculate process capability.
		3.5	Implement revised data collection/processing and new capability information.
		3.6	Monitor improvement actions and make adjustments, as necessary.

## Foundation Skills

This section describes those required skills (language, literacy and numeracy) that are essential to performance.

Foundation skills essential to performance are explicit in the performance criteria of this unit of competency.

## Range of Conditions

This field allows for different work environments and conditions that may affect performance. Essential operating conditions that may be present (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) are included.

<b>Competitive systems and practices include one or more of:</b>	<ul style="list-style-type: none"><li>• lean operations</li><li>• agile operations</li><li>• preventative and predictive maintenance approaches</li><li>• statistical process control systems, including six sigma and three sigma</li><li>• Just in Time (JIT), kanban and other pull-related operations control systems</li><li>• supply, value, and demand chain monitoring and analysis</li><li>• 5S</li><li>• continuous improvement (kaizen)</li><li>• breakthrough improvement (kaizen blitz)</li><li>• cause/effect diagrams</li><li>• overall equipment effectiveness (OEE)</li><li>• takt time</li><li>• process mapping</li><li>• problem solving</li><li>• run charts</li><li>• standard procedures</li><li>• current reality tree.</li></ul>
<b>Variation includes all of:</b>	<ul style="list-style-type: none"><li>• random variation (no assignable cause)</li><li>• non-random variation (which has an assignable cause).</li></ul>
<b>Improved process capability may result from one or more of:</b>	<ul style="list-style-type: none"><li>• continuous improvement with the process capability being recalculated periodically</li><li>• an improvement project with the process capability recalculated as part of that project.</li></ul>
<b>Procedures (written, verbal,</b>	<ul style="list-style-type: none"><li>• work instructions</li><li>• standard operating procedures (SOPs)</li></ul>



- visual, computer based, etc.) include one or any combination of:**
- safe work method statements
  - formulas/recipes
  - batch sheets
  - temporary instructions
  - any similar instructions provided for the smooth running of the plant.

## Unit Mapping Information

Release 1. Supersedes and is equivalent to MSS404050A Undertake process capability improvements

## Links

Companion Volume implementation guides are found in VETNet -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=5b04f318-804f-4dc0-9463-c3fb9a3fe998>

# Assessment Requirements for MSS404050 Undertake process capability improvements

## Modification History

Release 1. Supersedes and is equivalent to MSS404050A Undertake process capability improvements

## Performance Evidence

Evidence required to demonstrate competence in this unit must be relevant to and satisfy the requirements of the elements and performance criteria and include the ability to undertake one (1) or more process capability improvements and to:

- obtain required data
- determine process capability/trial limits
- use the data and other information to develop process improvement proposal(s)
- monitor the improved process and make further adjustments as appropriate.

## Knowledge Evidence

Must provide evidence that demonstrates knowledge relevant to their job role sufficient to fulfil their job role independently, including:

- data collection and manipulation techniques
- variability, normal distribution and three/six sigma limits
- causes of random and non-random variation in the process
- approaches to reducing variability.

## Assessment Conditions

- The unit should be assessed holistically and the judgement of competence shall be based on a holistic assessment of the evidence.
- The collection of performance evidence is best done from a report and/or folio of evidence drawn from:
  - a single project which provides sufficient evidence of the requirements of all the elements and performance criteria
  - multiple smaller projects which together provide sufficient evidence of the requirements of all the elements and performance criteria.
- A third-party report, or similar, may be needed to testify to the work done by the individual, particularly when the project has been done as part of a project team.
- Assessment should use a real capability improvement project for an operational workplace.

- Knowledge evidence may be collected concurrently with performance evidence or through an independent process such as workbooks, written assessments or interviews (provided a record is kept).
- Assessment processes and techniques must be appropriate to the language, literacy and numeracy requirements of the work being performed and the needs of the candidate.
- Conditions for assessment must include access to all tools, equipment, materials and documentation required, including relevant workplace procedures, product and manufacturing specifications associated with this unit.
- Foundation skills are integral to competent performance of the unit and should not be assessed separately.
- Assessors must satisfy the assessor competency requirements that are in place at the time of the assessment as set by the VET regulator.
- The assessor must demonstrate both technical competency and currency.
- Technical competence can be demonstrated through:
  - relevant VET or other qualification/Statement of Attainment AND/OR
  - relevant workplace experience
- Currency can be demonstrated through:
  - performing the competency being assessed as part of current employment OR
  - having consulted with an organisation providing relevant environmental monitoring, management or technology services about performing the competency being assessed within the last twelve months.

## Links

Companion Volume implementation guides are found in VETNet -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=5b04f318-804f-4dc0-9463-c3fb9a3fe998>

## **MSS404052 Apply statistics to operational processes**

### **Modification History**

Release 1. Supersedes and is equivalent to MSS404052A Apply statistics to operational processes

### **Application**

This unit covers the ability to gather and analyse process data to support the control of processes and operations. It includes interpretation of sampling procedures, frequency distributions, random and non-random variations in data/control charts; use of control limits to determine whether or not monitored processes are in control; and communicating this information to others.

This unit applies to a person working in an organisation applying statistical process control on processes or operations. The statistical process control will usually be used to monitor the processes or operations and determine when action needs to be taken. The appropriate action will then be taken in accordance with standard procedures.

This unit primarily requires the application of skills associated with gathering and analysing data and communicating statistical information to others. This unit also has a strong emphasis on problem solving, initiative and enterprise, planning and organising, and self-management to solve problems and manage processes.

No licensing, legislative or certification requirements apply to this unit at the time of publication.

### **Pre-requisite Unit**

Nil

### **Competency Field**

Competitive systems and practices

### **Unit Sector**

Not applicable

## Elements and Performance Criteria

Elements describe the essential outcomes.

Performance criteria describe the performance needed to demonstrate achievement of the element.

1	<b>Collect process data</b>	1.1	Interpret sampling scheme.
		1.2	Obtain measurements in accordance with standard sampling procedures.
		1.3	Handle data in accordance with procedures.
2	<b>Interpret data</b>	2.1	Plot data on appropriate control chart.
		2.2	Distinguish between random and non-random patterns of results.
		2.3	Identify results outside the control limits.
		2.4	Recognise situations requiring action.
		2.5	Take action in accordance with procedures.
		2.6	Determine cost of non-conformance.
3	<b>Calculate control limits</b>	3.1	Consult relevant stakeholders to determine appropriate limits.
		3.2	Use relevant methods to calculate/revise control limits.
		3.3	Plot limits on control chart and complete other records in accordance with procedures.
		3.4	Explain impact of limit to relevant stakeholders.

## Foundation Skills

This section describes those required skills (language, literacy and numeracy) that are essential to performance.

Foundation skills essential to performance are explicit in the performance criteria of this unit of competency.

## Range of Conditions

This field allows for different work environments and conditions that may affect performance. Essential operating conditions that may be present (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) are included.

**Competitive systems and practices include one or more of:**

- lean operations
- agile operations
- preventative and predictive maintenance approaches
- statistical process control systems, including six sigma and three sigma
- Just in Time (JIT), kanban and other pull-related operations control systems
- supply, value, and demand chain monitoring and analysis
- 5S
- continuous improvement (kaizen)
- breakthrough improvement (kaizen blitz)
- cause/effect diagrams
- overall equipment effectiveness (OEE)
- takt time
- process mapping
- problem solving
- run charts
- standard procedures
- current reality tree.

**Sampling schemes include one or more of:**

- sampling for attributes or sampling for variables
- batch, continuous or custom made products
- type of sample
- size of sample
- number of items/samples
- number/type of measurements to be done on each sample
- timing of sampling
- location of sampling points
- sampling equipment
- measurement/testing equipment/methods.

**Checking, analysing and storing data includes one or more of:**

- calculating means, ranges, mean of means and standard deviations (using appropriate calculation aids)
- entering data into a software package
- recording data either in writing or electronically

- other required manipulations of the data.

**Control charts include one or more of:**

- run
- tally
- mean/range
- attributes
- other relevant charts.

**Variations include all of:**

- random variations for which no cause can be found
- non-random variations for which a cause can be found and so the cause of the variation eliminated (also called identifiable cause, assignable cause or special cause)
- non-random variations used to predict possible breaches of the control limits.

**Limits include one or more of:**

- control limits (also referred to as process capability) within which the process will operate if it is 'under control'
- appropriate limits: 1 sigma warning limits, 2 sigma warning limits, 3 sigma control limits, and 6 sigma limits.

**Costs of non-conformance include one or more of:**

- reprocessing/rework
- expediting
- unplanned service
- excess inventory
- complaint handline
- downtime
- returns
- scrap
- labour costs
- material costs
- infrastructure costs/overhead
- utility costs.

**Procedures (written, verbal, visual, computer based, etc.) include one or any combination of:**

- work instructions
- standard operating procedures (SOPs)
- safe work method statements
- formulas/recipes
- batch sheets
- temporary instructions
- any similar instructions provided for the smooth running of

the process.

## Unit Mapping Information

Release 1. Supersedes and is equivalent to MSS404052A Apply statistics to operational processes

## Links

Companion Volume implementation guides are found in VETNet -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=5b04f318-804f-4dc0-9463-c3fb9a3fe998>



# **Assessment Requirements for MSS404052 Apply statistics to operational processes**

## **Modification History**

Release 1. Supersedes and is equivalent to MSS404052A Apply statistics to operational processes

## **Performance Evidence**

Evidence required to demonstrate competency in this unit must be relevant to and satisfy all of the requirements of the elements and performance criteria under the specified conditions of assessment and must include on two (2) or more occasions:

- gathering, analysing and interpreting process data to support the control of processes and operations
- applying specified sampling procedures
- investigating the causes of variation in a process
- communicating with other employees to obtain samples/data and to explain results and limits
- calculating and plotting data and control limits
- completing other required documentation.

## **Knowledge Evidence**

Must provide evidence that demonstrates knowledge relevant to their job role sufficient to fulfil their job role independently, including:

- purpose of sampling and measurement
- sampling methods to be used
- methods of calculating means, standard deviations and the like and their purpose in statistical control
- concept of limits, including 1, 2, 3 and 6 sigma limits
- types of control charts and their applications to different types of process/product and for different purposes
- process causes of variation and typical cause types of non-random variation
- non-process (e.g. measurement) causes of variation
- recognition of stable and unstable processes
- causes of stability/instability in the process
- calculation of control limits/process capability and the applications of different control limits
- the standard distribution curve and confidence limits.

## Assessment Conditions

- The unit should be assessed holistically and the judgement of competence shall be based on a holistic assessment of the evidence.
- The collection of performance evidence:
  - should occur over a range of situations which include typical disruptions to normal, smooth operation of the workplace
  - will typically include a supervisor/third-party report focussing on consistent performance and problem recognition and solving. A supervisor/third-party report must be prepared by someone who has a direct, relevant, current relationship with the person being assessed and who is in a position to form a judgement on workplace performance relevant to the unit of competency
  - must include the application of statistics to an operational process in own workplace
  - will typically include the use of appropriate tools, equipment and safety gear requiring demonstration of preparation, operation, completion and responding to problems.
- Assessment should occur in operational workplace situations.
- Knowledge evidence may be collected concurrently with performance evidence (provided a record is kept) or through an independent process such as workbooks, written assessments or interviews (provided a record is kept).
- Assessment processes and techniques must be appropriate to the language, literacy and numeracy requirements of the work being performed and the needs of the candidate.
- Conditions for assessment must include access to all tools, equipment, materials and documentation required, including relevant workplace procedures, product and manufacturing specifications associated with this unit.
- Foundation skills are integral to competent performance of the unit and should not be assessed separately.
- Assessors must satisfy the assessor competency requirements that are in place at the time of the assessment as set by the VET regulator.
- The assessor must demonstrate both technical competency and currency.
- Technical competence can be demonstrated through:
  - relevant VET or other qualification/Statement of Attainment AND/OR
  - relevant workplace experience
- Currency can be demonstrated through:
  - performing the competency being assessed as part of current employment OR
  - having consulted with an organisation providing relevant environmental monitoring, management or technology services about performing the competency being assessed within the last twelve months.

## Links

Companion Volume implementation guides are found in VETNet -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=5b04f318-804f-4dc0-9463-c3fb9a3fe998>

## MSS404053 Use DMAIC techniques

### Modification History

Release 1. Supersedes and is equivalent to MSS404053A Use six sigma techniques

### Application

This unit of competency covers the skills and knowledge required to apply the Define, Measure, Analyse, Improve, and Control and standardise (DMAIC) to improve quality, cost and delivery in operations and other supporting processes in the workplace. This will be undertaken with other members of the process team.

This unit requires the application of skills associated with using information, problem solving, initiative, enterprise, planning and organising in order to identify an area requiring improvement and develop a measured process to make improvements.

No licensing, legislative or certification requirements apply to this unit at the time of publication.

### Pre-requisite Unit

Nil

### Competency Field

Competitive systems and practices

### Unit Sector

Not applicable

### Elements and Performance Criteria

Elements describe the essential outcomes.

Performance criteria describe the performance needed to demonstrate achievement of the element.

1	<b>Identify an area requiring improvement</b>	1.1	Identify customer needs from process.
		1.2	Identify customer benefits delivered by process.
		1.3	Identify areas requiring improvement.

- |   |                                       |     |   |
|---|---------------------------------------|-----|---|
| 2 | <b>Apply DMAIC process</b>            | 2.1 | Define improvement project.   |
|   |                                       | 2.2 | Acquire required measurements/data.   |
|   |                                       | 2.3 | Analyse data and determine possible process improvements.                             |
|   |                                       | 2.4 | Develop and test improvement solutions.   |
|   |                                       | 2.5 | Control and standardise the improvement.  |
|   |                                       |     |   |
| 3 | <b>Review and confirm improvement</b> | 3.1 | Determine and document benefits.  |
|   |                                       | 3.2 | Ensure procedures and other relevant documentation is updated for improved procedure. |
|   |                                       | 3.3 | Review process data after an appropriate period and confirm the improvement.          |

## Foundation Skills

This section describes those required skills (language, literacy and numeracy) that are essential to performance.

Foundation skills essential to performance are explicit in the performance criteria of this unit of competency.

## Range of Conditions

This field allows for different work environments and conditions that may affect performance. Essential operating conditions that may be present (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) are included.

- Competitive systems and practices include one or more of:**
- lean operations
  - agile operations
  - preventative and predictive maintenance approaches
  - statistical process control systems ,including six sigma and three sigma
  - Just in Time (JIT), kanban and other pull-related operations

	<ul style="list-style-type: none"><li>control systems</li><li>• supply, value, and demand chain monitoring and analysis</li><li>• 5S</li><li>• continuous improvement (kaizen)</li><li>• breakthrough improvement (kaizen blitz)</li><li>• cause/effect diagrams</li><li>• overall equipment effectiveness (OEE)</li><li>• takt time</li><li>• process mapping</li><li>• problem solving</li><li>• run charts</li><li>• standard procedures</li><li>• current reality tree.</li></ul>
<b>DMAIC includes all of:</b>	<ul style="list-style-type: none"><li>• define</li><li>• measure</li><li>• analyse</li><li>• improve</li><li>• control and standardise.</li></ul>
<b>Define improvement project includes all of:</b>	<ul style="list-style-type: none"><li>• 'as is' process map</li><li>• defining benefits from the project</li><li>• problem statement</li><li>• goal statement</li><li>• project scope.</li></ul>
<b>Measurement includes one or more of:</b>	<ul style="list-style-type: none"><li>• identification of key measures/attributes</li><li>• sampling schedule for project</li><li>• variations and limits.</li></ul>
<b>Analyse includes one or more of:</b>	<ul style="list-style-type: none"><li>• statistical analysis of data</li><li>• root cause analysis</li><li>• use of various problem solving/analysis tools.</li></ul>
<b>Improvement includes one or more of:</b>	<ul style="list-style-type: none"><li>• generation and testing of improvements</li><li>• selection of appropriate improvements.</li></ul>
<b>Control and</b>	<ul style="list-style-type: none"><li>• documenting</li></ul>

**standardise includes** • transferring ownership of improved process.  
**one or more of:**

## Unit Mapping Information

Release 1. Supersedes and is equivalent to MSS404053A Use six sigma techniques

## Links

Companion Volume implementation guides are found in VETNet -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=5b04f318-804f-4dc0-9463-c3fb9a3fe998>

# Assessment Requirements for MSS404053 Use DMAIC techniques

## Modification History

Release 1. Supersedes and is equivalent to MSS404053A Use six sigma techniques

## Performance Evidence

Evidence required to demonstrate competence in this unit must be relevant to and satisfy the requirements of the elements and performance criteria and include the ability on one (1) or more occasions to:

- identify a required improvement
- apply DMAIC to that improvement
- confirm the improvement has occurred.

## Knowledge Evidence

Must provide evidence that demonstrates knowledge relevant to their job role sufficient to fulfil their job role independently, including:

- methods of identifying customer needs and benefits
- methods of identifying areas requiring improvement
- DMAIC processes
- methods of confirming benefits and improvements.

## Assessment Conditions

- The unit should be assessed holistically and the judgement of competence shall be based on a holistic assessment of the evidence.
- The collection of performance evidence is best done from a report and/or folio of evidence drawn from:
  - a single project which provides sufficient evidence of the requirements of all the elements and performance criteria
  - multiple smaller projects which together provide sufficient evidence of the requirements of all the elements and performance criteria.
- A third-party report, or similar, may be needed to testify to the work done by the individual, particularly when the project has been done as part of a project team.
- Assessment should use a real DMAIC approach to a workplace improvement.
- Knowledge evidence may be collected concurrently with performance evidence or through an independent process such as workbooks, written assessments or interviews (provided a record is kept).
- Assessment processes and techniques must be appropriate to the language, literacy and numeracy requirements of the work being performed and the needs of the candidate.

- Conditions for assessment must include access to all tools, equipment, materials and documentation required, including relevant workplace procedures, product and manufacturing specifications associated with this unit.
- Foundation skills are integral to competent performance of the unit and should not be assessed separately.
- Assessors must satisfy the assessor competency requirements that are in place at the time of the assessment as set by the VET regulator.
- The assessor must demonstrate both technical competency and currency.
- Technical competence can be demonstrated through:
  - relevant VET or other qualification/Statement of Attainment AND/OR
  - relevant workplace experience
- Currency can be demonstrated through:
  - performing the competency being assessed as part of current employment OR
  - having consulted with an organisation providing relevant environmental monitoring, management or technology services about performing the competency being assessed within the last twelve months.

## Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=5b04f318-804f-4dc0-9463-c3fb9a3fe998>



## **MSS404060 Facilitate the use of planning software systems in a work area or team**

### **Modification History**

Release 1. Supersedes and is equivalent to MSS404060A Facilitate the use of planning software systems in a work area or team

### **Application**

This unit of competency covers the skills and knowledge required to facilitate the use of planning software in an organisation in an individual's work area or team. These systems are known by various generic names, such as Enterprise Resource Planning (ERP), Materials Resource Planning (MRPII, MRP III etc.) or by proprietary names.

This unit applies to an individual who will access the planning software system for their own work, but will also need to provide support and organise skill development programs for their team or work group members. The individual will typically be a technical expert, team leader or be in a role where they have sufficient technical understanding of processes in their own work and that of others to be able to facilitate the use of the planning software system. The planning software system will be used routinely in the work of the team or work group.

This unit primarily requires the application of skills associated with using communication technology and supporting team use of planning software. Problem solving, initiative and enterprise, and planning and organisational skills are required to ensure that planning software is used efficiently. This requires aspects of learning and self-management to ensure own performance and that of the team.

No licensing, legislative or certification requirements apply to this unit at the time of publication.

### **Pre-requisite Unit**

Nil

### **Competency Field**

Competitive systems and practices

### **Unit Sector**

Not applicable

## Elements and Performance Criteria

Elements describe the essential outcomes.		Performance criteria describe the performance needed to demonstrate achievement of the element.	
1	<b>Identify scope of planning software</b>	1.1	Identify categories of information held by planning software.
		1.2	Identify information categories relevant to team and area processes.
		1.3	Identify range of information able to be provided to planning software by team or work group.
		1.4	Identify range of information able to be provided to team or work group by planning software.
2	<b>Communicate using the planning software system</b>	2.1	Send and receive information using planning software.
		2.2	Send and receive messages using planning software.
3	<b>Make decisions using planning software</b>	3.1	Interrogate the planning software system to find required current, historical or predicted information.
		3.2	Take actions appropriate to the information in accordance with procedures.
4	<b>Monitor the use of planning software</b>	4.1	Routinely monitor planning software information.
		4.2	Review performance and use of planning software with team.
5	<b>Support others to use planning software</b>	5.1	Regularly communicate with team or other work group members, both using planning software and face to face.
		5.2	Identify improvements required.
		5.3	Take action to implement improvements in accordance with procedures.

## Foundation Skills

This section describes those required skills (language, literacy and numeracy) that are essential to performance.

Foundation skills essential to performance are explicit in the performance criteria of this unit of competency.

## Range of Conditions

This field allows for different work environments and conditions that may affect performance. Essential operating conditions that may be present (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) are included.

- Competitive systems and practices include one or more of:**
- lean operations
  - agile operations
  - preventative and predictive maintenance approaches
  - statistical process control systems, including six sigma and three sigma
  - Just in Time (JIT), kanban and other pull-related operations control systems
  - supply, value, and demand chain monitoring and analysis
  - 5S
  - continuous improvement (kaizen)
  - breakthrough improvement (kaizen blitz)
  - cause/effect diagrams
  - overall equipment effectiveness (OEE)
  - takt time
  - process mapping
  - problem solving
  - run charts
  - standard procedures
  - current reality tree.

- Planning software integrates a range of business information including one or**
- sales/order taking
  - finance/accounting
  - logistics
  - maintenance
  - human resources

**more of:**

- production.

**Information and message categories include one or more of:**

- orders
- production/operations processes
- scheduling (e.g. daily/weekly)
- finance and accounting
- human resources (e.g. rosters, reserves, training completed and scheduled)
- quality requirements
- customers
- suppliers.

**Stages where value stream actions occur include one or more of:**

- sales outlet/representative
- information gathering, data analysis and research
- product design
- raw material sourcing
- intermediate processing
- final assembler/collation/preparation
- support services (e.g. accounting, finance and legal)
- storage and delivery to customer
- after market support.

## Unit Mapping Information

Release 1. Supersedes and is equivalent to MSS404060A Facilitate the use of planning software systems in a work area or team

## Links

Companion Volume implementation guides are found in VETNet -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=5b04f318-804f-4dc0-9463-c3fb9a3fe998>

# **Assessment Requirements for MSS404060 Facilitate the use of planning software systems in a work area or team**

## **Modification History**

Release 1. Supersedes and is equivalent to MSS404060A Facilitate the use of planning software systems in a work area or team

## **Performance Evidence**

Evidence required to demonstrate competence in this unit must be relevant to and satisfy the requirements of the elements and performance criteria and include the ability, to facilitate and/or provide support on three (3) or more occasions, to:

- identify team or work group area information requirements and relate to planning software categories
- lead and motivate others in using planning software
- ensure information sent to planning software is accurate and appropriate
- obtain regular and one-off information from planning software
- make decisions using planning software generated information.

## **Knowledge Evidence**

Must provide evidence that demonstrates knowledge relevant to their job role sufficient to fulfil their job role independently, including:

- hierarchy of planning software system and operation
- information available from/through the planning software system
- query facilities and information analysis capabilities offered by planning software
- support/training/skill development mechanisms available for access by team members.

## **Assessment Conditions**

- The unit should be assessed holistically and the judgement of competence shall be based on a holistic assessment of the evidence.
- The collection of performance evidence:
  - should occur over a range of situations which include typical disruptions to normal, smooth operation of the workplace
  - will typically include a supervisor/third-party report focussing on consistent performance and problem recognition and solving. A supervisor/third-party report must be prepared by someone who has a direct, relevant, current relationship with the person being assessed and who is in a position to form a judgement on workplace performance relevant to the unit of competency
  - must include facilitating and/or support for teams or work groups using planning software systems in own workplace

- will typically include the use of appropriate tools, equipment and safety gear requiring demonstration of preparation, operation, completion and responding to problems.
- Assessment should occur in operational workplace situations.
- Knowledge evidence may be collected concurrently with performance evidence (provided a record is kept) or through an independent process such as workbooks, written assessments or interviews (provided a record is kept).
- Assessment processes and techniques must be appropriate to the language, literacy and numeracy requirements of the work being performed and the needs of the candidate.
- Conditions for assessment must include access to all tools, equipment, materials and documentation required, including relevant workplace procedures, product and manufacturing specifications associated with this unit.
- Foundation skills are integral to competent performance of the unit and should not be assessed separately.
- Assessors must satisfy the assessor competency requirements that are in place at the time of the assessment as set by the VET regulator.
- The assessor must demonstrate both technical competency and currency.
- Technical competence can be demonstrated through:
  - relevant VET or other qualification/Statement of Attainment AND/OR
  - relevant workplace experience
- Currency can be demonstrated through:
  - performing the competency being assessed as part of current employment OR
  - having consulted with an organisation providing relevant environmental monitoring, management or technology services about performing the competency being assessed within the last twelve months.

## Links

Companion Volume implementation guides are found in VETNet -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=5b04f318-804f-4dc0-9463-c3fb9a3fe998>

## **MSS404061 Facilitate the use of SCADA systems in a team or work area**

### **Modification History**

Release 1. Supersedes and is equivalent to MSS404061A Facilitate the use of SCADA systems in a team or work area

### **Application**

This unit of competency covers the skills and knowledge required by a team leader or technical expert to personally use and facilitate the use of System Control and Data Acquisition (SCADA), or other similar systems, and support the team in their use of SCADA.

This unit applies to individuals who will access the SCADA system for their own work, but will also need to provide support and organise skill development programs for their team members. It is also relevant to maintenance personnel using a SCADA system to coordinate maintenance activities.

This unit primarily requires the application of skills associated with using communication technology and supporting team use of SCADA systems. Problem solving, initiative and enterprise, and planning and organisational skills are required to ensure the system is used efficiently.

No licensing, legislative or certification requirements apply to this unit at the time of publication.

### **Pre-requisite Unit**

Nil

### **Competency Field**

Competitive systems and practices

### **Unit Sector**

Not applicable

## Elements and Performance Criteria

Elements describe the essential outcomes.

Performance criteria describe the performance needed to demonstrate achievement of the element.

- |   |                                       |     |  |
|---|---------------------------------------|-----|--|
| 1 | <b>Identify scope of SCADA system</b> | 1.1 | Identify categories of information held in and control options of SCADA system relevant to team or area. |
|   |                                       | 1.2 | Identify range of information able to be provided to SCADA system by team.                               |
|   |                                       | 1.3 | Identify range of information able to be provided to team by SCADA system.                               |
|   |                                       | 1.4 | Identify team or area functions impacted by SCADA system.  |
|   |                                       |     |  |
| 2 | <b>Communicate using SCADA system</b> | 2.1 | Send and receive information using SCADA.  |
|   |                                       | 2.2 | Send and receive messages using SCADA.   |
|   |                                       |     |  |
| 3 | <b>Make decisions using SCADA</b>     | 3.1 | Interrogate the SCADA system to find required current, historical or predicted information.              |
|   |                                       | 3.2 | Take actions appropriate to the information.   |
|   |                                       |     |  |
| 4 | <b>Monitor the use of SCADA</b>       | 4.1 | Routinely monitor SCADA information.   |
|   |                                       | 4.2 | Identify poor uses of SCADA system within team and system inadequacies.                                  |
|   |                                       | 4.3 | Identify system improvements required.   |
|   |                                       | 4.4 | Take action to improve SCADA system and its use.   |
|   |                                       |     |  |
| 5 | <b>Support team use of SCADA</b>      | 5.1 | Regularly communicate with team, both using SCADA-based communication and face to face.                  |
|   |                                       | 5.2 | Identify skill improvement needs.  |
|   |                                       | 5.3 | Identify team members who require additional support.  |



#### 5.4 Take action to provide support according to procedures.

## Foundation Skills

This section describes those required skills (language, literacy and numeracy) that are essential to performance.

Foundation skills essential to performance are explicit in the performance criteria of this unit of competency.

## Range of Conditions

This field allows for different work environments and conditions that may affect performance. Essential operating conditions that may be present (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) are included.

- Competitive systems and practices include one or more of:**
- lean operations
  - agile operations
  - preventative and predictive maintenance approaches
  - statistical process control systems, including six sigma and three sigma
  - Just in Time (JIT), kanban and other pull-related operations control systems
  - supply, value, and demand chain monitoring and analysis
  - 5S
  - continuous improvement (kaizen)
  - breakthrough improvement (kaizen blitz)
  - cause/effect diagrams
  - overall equipment effectiveness (OEE)
  - takt time
  - process mapping
  - problem solving
  - run charts
  - standard procedures
  - current reality tree.

- Stages where value stream actions occur include one or more of:**
- sales outlet/representative
  - information gathering, data analysis and research
  - product design
  - raw material sourcing
  - intermediate processing
  - final assembler/collation/preparation
  - support services (e.g. accounting, finance and legal)
  - storage and delivery to customer
  - after market support.

## Unit Mapping Information

Release 1. Supersedes and is equivalent to MSS404061A Facilitate the use of SCADA systems in a team or work area

## Links

Companion Volume implementation guides are found in VETNet -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=5b04f318-804f-4dc0-9463-c3fb9a3fe998>

# **Assessment Requirements for MSS404061 Facilitate the use of SCADA systems in a team or work area**

## **Modification History**

Release 1. Supersedes and is equivalent to MSS404061A Facilitate the use of SCADA systems in a team or work area

## **Performance Evidence**

Evidence required to demonstrate competence in this unit must be relevant to and satisfy the requirements of the elements and performance criteria and include the ability, to facilitate and/or provide support on three (3) or more occasions, to:

- identify team or area information and operations requirements and relate to SCADA system
- lead and motivate others in using SCADA system
- obtain regular and one-off information from SCADA system
- make decisions using SCADA generated information.

## **Knowledge Evidence**

Must provide evidence that demonstrates knowledge relevant to their job role sufficient to fulfil their job role independently, including:

- hierarchy of SCADA system and operation
- information available from and controls exercised by/through the SCADA system
- query, control and other facilities and information offered by SCADA
- support/training/skill development mechanisms available for access by team members.

## **Assessment Conditions**

- The unit should be assessed holistically and the judgement of competence shall be based on a holistic assessment of the evidence.
- The collection of performance evidence:
  - should occur over a range of situations which include typical disruptions to normal, smooth operation of the workplace
  - will typically include a supervisor/third-party report focussing on consistent performance and problem recognition and solving. A supervisor/third-party report must be prepared by someone who has a direct, relevant, current relationship with the person being assessed and who is in a position to form a judgement on workplace performance relevant to the unit of competency
  - must include facilitating and/or support for teams or work groups using SCADA systems in own workplace

- will typically include the use of appropriate tools, equipment and safety gear requiring demonstration of preparation, operation, completion and responding to problems.
- Assessment should occur in operational workplace situations.
- Knowledge evidence may be collected concurrently with performance evidence (provided a record is kept) or through an independent process such as workbooks, written assessments or interviews (provided a record is kept).
- Assessment processes and techniques must be appropriate to the language, literacy and numeracy requirements of the work being performed and the needs of the candidate.
- Conditions for assessment must include access to all tools, equipment, materials and documentation required, including relevant workplace procedures, product and manufacturing specifications associated with this unit.
- Foundation skills are integral to competent performance of the unit and should not be assessed separately.
- Assessors must satisfy the assessor competency requirements that are in place at the time of the assessment as set by the VET regulator.
- The assessor must demonstrate both technical competency and currency.
- Technical competence can be demonstrated through:
  - relevant VET or other qualification/Statement of Attainment AND/OR
  - relevant workplace experience
- Currency can be demonstrated through:
  - performing the competency being assessed as part of current employment OR
  - having consulted with an organisation providing relevant environmental monitoring, management or technology services about performing the competency being assessed within the last twelve months.

## Links

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<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=5b04f318-804f-4dc0-9463-c3fb9a3fe998>

## **MSS404081 Undertake proactive maintenance analyses**

### **Modification History**

Release 1. Supersedes and is equivalent to MSS404081A Undertake proactive maintenance analyses

### **Application**

This unit of competency covers the skills and knowledge required to undertake the most common forms of analyses associated with predictive/preventative/reliability centred maintenance strategies.

This unit applies to a technical expert (usually an engineer, technician or tradesperson) who is required to undertake analyses for the purpose of predictive/preventative/reliability centred maintenance as part of a competitive systems and practices strategy.

This unit primarily requires the application of skills associated with communication, teamwork, problem solving, initiative and enterprise, and planning and organising in order to undertake maintenance analyses. This is normally done in the context of using computer technology, and requires aspects of learning and self-management to ensure team involvement and facilitation of learning.

No licensing, legislative or certification requirements apply to this unit at the time of publication.

### **Pre-requisite Unit**

Nil

### **Competency Field**

Competitive systems and practices

### **Unit Sector**

Not applicable

### **Elements and Performance Criteria**

Elements describe the      Performance criteria describe the performance needed to

essential outcomes.	demonstrate achievement of the element.
1 <b>Liaise with operator</b>	<ul style="list-style-type: none"><li>1.1      Establish a relationship with the operator of equipment/plant.</li><li>1.2      Ensure the operator has the required skills and resources to keep the equipment/plant clean.</li><li>1.3      Ensure the operator is able to effectively monitor the operation of the equipment/plant.</li><li>1.4      Regularly communicate with operator about the overall equipment effectiveness (OEE) of their equipment/plant.</li><li>1.5      Involve operator, team leader and other key personnel in identification of skill needs and means of skill acquisition to fill any identified gaps.</li></ul>
2 <b>Analyse history</b>	<ul style="list-style-type: none"><li>2.1      Analyse mean time between failures (MTBF) from maintenance records.</li><li>2.2      Analyse performance data of the equipment/plant.</li><li>2.3      Identify causes of changes to historic trends/status.</li><li>2.4      Determine methods of ensuring causes of improvements and resolution of deterioration are locked in.</li></ul>
3 <b>Undertake failure mode effects analysis (FMEA) or similar failure effects analysis</b>	<ul style="list-style-type: none"><li>3.1      Undertake analysis.</li><li>3.2      Record results of analysis.</li><li>3.3      Investigate methods of eliminating possibility of failure and/or minimising the impact of the failure.</li><li>3.4      Liaise with operator, team leader and other key personnel regarding possible solutions.</li><li>3.5      Select most appropriate solution.</li><li>3.6      Implement selected solutions.</li></ul>
4 <b>Undertake</b>	<ul style="list-style-type: none"><li>4.1      Obtain data for condition monitoring analysis.</li></ul>

<b>condition monitoring analysis</b>	4.2	Interpret condition monitoring data.
	4.3	Predict required maintenance type and timing from condition monitoring data.
	4.4	Liaise with operator, team leader and other key personnel regarding implications of condition monitoring report.
	4.5	Involve team members in development of changes to maintenance strategy to ensure awareness, learning and commitment.

## Foundation Skills

This section describes those required skills (language, literacy and numeracy) that are essential to performance.

Foundation skills essential to performance are explicit in the performance criteria of this unit of competency.

## Range of Conditions

This field allows for different work environments and conditions that may affect performance. Essential operating conditions that may be present (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) are included.

<b>Competitive systems and practices include one or more of:</b>	<ul style="list-style-type: none"> <li>• lean operations</li> <li>• agile operations</li> <li>• preventative and predictive maintenance approaches</li> <li>• statistical process control systems, including six sigma and three sigma</li> <li>• Just in Time (JIT), kanban and other pull-related operations control systems</li> <li>• supply, value, and demand chain monitoring and analysis</li> <li>• 5S</li> <li>• continuous improvement (kaizen)</li> <li>• breakthrough improvement (kaizen blitz)</li> <li>• cause/effect diagrams</li> <li>• overall equipment effectiveness (OEE)</li> <li>• takt time</li> <li>• process mapping</li> </ul>
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- problem solving
- run charts
- standard procedures
- current reality tree.

## Unit Mapping Information

Release 1. Supersedes and is equivalent to MSS404081A Undertake proactive maintenance analyses

## Links

Companion Volume implementation guides are found in VETNet -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=5b04f318-804f-4dc0-9463-c3fb9a3fe998>



# **Assessment Requirements for MSS404081 Undertake proactive maintenance analyses**

## **Modification History**

Release 1. Supersedes and is equivalent to MSS404081A Undertake proactive maintenance analyses

## **Performance Evidence**

Evidence required to demonstrate competence in this unit must be relevant to and satisfy the requirements of the elements and performance criteria and include the ability, for two (2) or more items of equipment/plant, to:

- identify and analyse data and other information on the historical performance of equipment
- undertake MBTF, FMEA and condition monitoring analyses
- involve operators, maintenance and other stakeholders in decisions on proactive maintenance strategies
- identify root cause of failure and deterioration in equipment performance
- select and implement failure elimination or minimisation solutions.

## **Knowledge Evidence**

Must provide evidence that demonstrates knowledge relevant to their job role sufficient to fulfil their job role independently, including:

- cleaning needs, techniques and principles of equipment in area of responsibility
- methods of assessing operator and maintenance skill gaps and filling them
- techniques for determining MTBF or similar
- techniques for undertaking FMEA or similar
- principles of competitive systems and practices strategies being implemented and how to adapt them to maintenance
- root cause analysis
- techniques to analyse condition monitoring data.

## **Assessment Conditions**

- The unit should be assessed holistically and the judgement of competence shall be based on a holistic assessment of the evidence.
- The collection of performance evidence is best done from a report and/or folio of evidence drawn from:
  - a single project which provides sufficient evidence of the requirements of all the elements and performance criteria

- multiple smaller projects which together provide sufficient evidence of the requirements of all the elements and performance criteria.
- A third-party report, or similar, may be needed to testify to the work done by the individual, particularly when the project has been done as part of a project team.
- Assessment should use a real project in an operational workplace.
- Knowledge evidence may be collected concurrently with performance evidence or through an independent process such as workbooks, written assessments or interviews (provided a record is kept).
- Assessment processes and techniques must be appropriate to the language, literacy and numeracy requirements of the work being performed and the needs of the candidate.
- Conditions for assessment must include access to all tools, equipment, materials and documentation required, including relevant workplace procedures, product and manufacturing specifications associated with this unit.
- Foundation skills are integral to competent performance of the unit and should not be assessed separately.
- Assessors must satisfy the assessor competency requirements that are in place at the time of the assessment as set by the VET regulator.
- The assessor must demonstrate both technical competency and currency.
- Technical competence can be demonstrated through:
  - relevant VET or other qualification/Statement of Attainment AND/OR
  - relevant workplace experience
- Currency can be demonstrated through:
  - performing the competency being assessed as part of current employment OR
  - having consulted with an organisation providing relevant environmental monitoring, management or technology services about performing the competency being assessed within the last twelve months.

## Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=5b04f318-804f-4dc0-9463-c3fb9a3fe998>

## **MSS404082 Assist in implementing a proactive maintenance strategy**

### **Modification History**

Release 1. Supersedes and is equivalent to MSS404082A Assist in implementing a proactive maintenance strategy

### **Application**

This unit of competency covers the skills and knowledge required by a maintenance person to assist in the implementation of a proactive maintenance strategy in an organisation. This unit includes the interaction between a maintenance worker and operators, as appropriate.

This unit applies to a maintenance person in an organisation that has adopted or is implementing total preventative/productive maintenance (TPM), reliability centred maintenance (RCM) or similar strategies. As part of this, the maintenance person is expected to assist in the implementation by determining appropriate maintenance related schedules and also by providing maintenance related assistance to non-maintenance personnel, such as assisting production personnel to fulfil their role in the TPM/RCM strategy.

This unit requires the application of skills associated with problem solving and initiative and enterprise in order to analyse maintenance requirements. Communication, teamwork and planning and organising skills will be required to implement reliability strategies. This requires aspects of self-management to ensure improvement of own performance and learning.

No licensing, legislative or certification requirements apply to this unit at the time of publication.

### **Pre-requisite Unit**

Nil

### **Competency Field**

Competitive systems and practices

### **Unit Sector**

Not applicable

## Elements and Performance Criteria

Elements describe the essential outcomes.

Performance criteria describe the performance needed to demonstrate achievement of the element.

- |   |   |   |
|---|---|---|
| 1 | <b>Develop components of reliability strategy for a work/plant area</b> | 1.1 Determine manufacturer's recommended inspection, servicing and related schedules for relevant plant.<br>1.2 Consult with relevant people with regard to appropriate inspections, services and schedules.<br>1.3 Discuss any conflicts with relevant people and seek resolution of conflicts.<br>1.4 Develop schedules in liaison with relevant people.<br>1.5 Identify inspections and servicing which may be done by operations personnel in liaison with relevant stakeholders. |
| 2 | <b>Assess current practice for maintenance implications</b>             | 2.1 Identify the overall equipment effectiveness (OEE) or other organisation targets for equipment/plant.<br>2.2 Evaluate procedures for plant/equipment reliability implications.<br>2.3 Discuss current practices with relevant people to determine any plant/equipment reliability implications.<br>2.4 Recommend changes to improve plant/equipment reliability in accordance with procedures.  |
| 3 | <b>Assist in implementing the reliability strategy</b>                  | 3.1 Arrange for schedules to be incorporated in relevant work plans.<br>3.2 Identify training needs in discussion with relevant personnel.<br>3.3 Assist personnel to develop required skills for inspections/ servicing within scope of authority.<br>3.4 Collect data/information as required by own work plan.<br>3.5 Compare data/information with performance indicators.<br>3.6 Recommend improvements to reliability strategy in   |

accordance with procedures.

## Foundation Skills

This section describes those required skills (language, literacy and numeracy) that are essential to performance.

Foundation skills essential to performance are explicit in the performance criteria of this unit of competency.

## Range of Conditions

This field allows for different work environments and conditions that may affect performance. Essential operating conditions that may be present (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) are included.

- Competitive systems and practices include one or more of:**
- lean operations
  - agile operations
  - preventative and predictive maintenance approaches
  - statistical process control systems, including six sigma and three sigma
  - Just in Time (JIT), kanban and other pull-related operations control systems
  - supply, value, and demand chain monitoring and analysis
  - 5S
  - continuous improvement (kaizen)
  - breakthrough improvement (kaizen blitz)
  - cause/effect diagrams
  - overall equipment effectiveness (OEE)
  - takt time
  - process mapping
  - problem solving
  - run charts
  - standard procedures
  - current reality tree.

- Strategies include one or more of:**
- mean time between failure (MTBF) which is one key measure of the effectiveness of a maintenance procedure, and is an indicator as to whether root causes are being found and resolved. If MTBF is reducing, then it is an indicator that the maintenance regime is

failing

- failure mode and effects analysis (FMEA) which is a systematic approach that identifies potential failure modes in a system, product or equipment based operations caused by either design or operation/process deficiencies. It also identifies critical or significant design or process characteristics that require special controls to prevent or detect failure modes. FMEA is a tool used to prevent problems from occurring
- industry sectors have highly adapted forms of FMEA and which may practice traditional FMEA in their routine maintenance while using another technique, such as Hazard and Operability Studies (HAZOP) for design and modification. HAZOP is a form of FMEA which has been practiced by the process industries for over 30 years and examines the implications of changes in process conditions to process stability
- condition monitoring which often involves quite sophisticated monitoring of equipment, including such things as vibration monitoring, instrumental analysis of lubricating oil, and so on, to determine the current state of the equipment, monitor the change in this condition and predict when it needs servicing/maintenance to maintain reliability.

**Inspection includes one or more of:**

- reading dials, gauges and meters
- observations, including those using sight, hearing, smell and feel
- observations of product quality/faults/rejects.

**Servicing includes one or more of:**

- cleaning
- lubricating
- topping up
- adjusting.

**Procedures (written, verbal, visual, computer based, etc.) include one or more of:**

- work instructions
- standard operating procedures (SOPs)
- safe work method statements
- formulas/recipes
- batch sheets
- temporary instructions
- any similar instructions provided for the smooth running of the plant.

## Unit Mapping Information

Release 1. Supersedes and is equivalent to MSS404082A Assist in implementing a proactive maintenance strategy

## Links

Companion Volume implementation guides are found in VETNet -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=5b04f318-804f-4dc0-9463-c3fb9a3fe998>

# **Assessment Requirements for MSS404082 Assist in implementing a proactive maintenance strategy**

## **Modification History**

Release 1. Supersedes and is equivalent to MSS404082A Assist in implementing a proactive maintenance strategy

## **Performance Evidence**

Evidence required to demonstrate competence in this unit must be relevant to and satisfy the requirements of the elements and performance criteria and include the ability, for one (1) or more work/plant areas, to:

- source information from manuals and other technical documentation or software
- effectively communicate with users on equipment operational and maintenance history
- develop schedules for maintenance activities, including seeking technical assistance, where appropriate
- differentiate between proactive and traditional maintenance strategies.

## **Knowledge Evidence**

Must provide evidence that demonstrates knowledge relevant to their job role sufficient to fulfil their job role independently, including:

- requirements of the proactive maintenance strategy being implemented
- operating principles and procedures for equipment/plant subject to proactive maintenance strategy
- purpose and processes for data collection in proactive maintenance strategies
- procedures relevant to own job and organisation implementation of proactive maintenance
- methods of making/recommending improvements.

## **Assessment Conditions**

- The unit should be assessed holistically and the judgement of competence shall be based on a holistic assessment of the evidence.
- The collection of performance evidence is best done from a report and/or folio of evidence drawn from:
  - a single project which provides sufficient evidence of the requirements of all the elements and performance criteria
  - multiple smaller projects which together provide sufficient evidence of the requirements of all the elements and performance criteria.
- A third-party report, or similar, may be needed to testify to the work done by the individual, particularly when the project has been done as part of a project team.
- Assessment should use a real project in an operational workplace.



- Knowledge evidence may be collected concurrently with performance evidence or through an independent process such as workbooks, written assessments or interviews (provided a record is kept).
- Assessment processes and techniques must be appropriate to the language, literacy and numeracy requirements of the work being performed and the needs of the candidate.
- Conditions for assessment must include access to all tools, equipment, materials and documentation required, including relevant workplace procedures, product and manufacturing specifications associated with this unit.
- Foundation skills are integral to competent performance of the unit and should not be assessed separately.
- Assessors must satisfy the assessor competency requirements that are in place at the time of the assessment as set by the VET regulator.
- The assessor must demonstrate both technical competency and currency.
- Technical competence can be demonstrated through:
  - relevant VET or other qualification/Statement of Attainment AND/OR
  - relevant workplace experience
- Currency can be demonstrated through:
  - performing the competency being assessed as part of current employment OR
  - having consulted with an organisation providing relevant environmental monitoring, management or technology services about performing the competency being assessed within the last twelve months.

## Links

Companion Volume implementation guides are found in VETNet -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=5b04f318-804f-4dc0-9463-c3fb9a3fe998>

## **MSS404083 Support proactive maintenance**

### **Modification History**

Release 1. Supersedes and is equivalent to MSS404083A Support proactive maintenance

### **Application**

This unit of competency covers the skills and knowledge required to lead a production team/work group or maintenance team in a proactive maintenance environment.

This unit applies in a competitive systems and practices organisation where proactive maintenance strategies, such as total preventative/productive maintenance (TPM) or reliability centred maintenance (RCM) are used. This unit applies to a team leader or other person who as part of their role assists others in implementing and following the proactive maintenance practices.

The unit covers the leading of a team in proactive maintenance activities, such as keeping records, visual checks, analysis of failures and effects on production and housekeeping. The unit does not cover breakdown maintenance, condition monitoring or non-destructive testing (NDT).

This unit requires the application of skills associated with communication, teamwork, problem solving, initiative, enterprise, planning and organising in order to lead a team in the development and implementation of proactive maintenance strategies. This unit has a strong emphasis on developing and resourcing the team to interpret information and monitor equipment and operation.

No licensing, legislative or certification requirements apply to this unit at the time of publication.

### **Pre-requisite Unit**

Nil

### **Competency Field**

Competitive systems and practices

## Unit Sector

Not applicable

## Elements and Performance Criteria

Elements describe the essential outcomes.

Performance criteria describe the performance needed to demonstrate achievement of the element.

- |   |   |     |  |
|---|---|-----|--|
| 1 | <b>Lead team in monitoring process and equipment</b>  | 1.1 | Demonstrate to team how to observe the process/equipment continuously and critically using appropriate senses (e.g. sight and hearing) to identify any potential or actual problems. |
|   |   | 1.2 | Identify to team data indicators that must be monitored and recorded.  |
|   |   | 1.3 | Ensure team monitors identified data indicators frequently and critically.   |
|   |   | 1.4 | Ensure symptoms of operations outside the desired range of conditions and performance are recognised.  |
|   |   | 1.5 | Analyse cause of equipment non-standard performance within scope of knowledge and skill.   |
|   |   | 1.6 | Ensure team members take timely action to solve problems or to refer problems to appropriate manager or specialist.  |
|   |   |     |  |
| 2 | <b>Apply proactive maintenance strategy</b>           | 2.1 | Obtain and discuss maintenance strategy with relevant people.  |
|   |   | 2.2 | Identify aspects of maintenance strategy which require specific input from team.   |
|   |   | 2.3 | Discuss maintenance strategy with team members.  |
|   |   | 2.4 | Ensure team members have resources and training to be able to make the required contributions.   |
|   |   |     |  |
| 3 | <b>Analyse standard procedures and work practices</b> | 3.1 | Examine team procedures and practices for compatibility with maintenance strategy.   |
|   |   | 3.2 | Identify areas where production procedures/practices   |

- should be changed to comply with maintenance strategy.
- 3.3 Identify areas where maintenance strategy should change to comply with production procedures and practices.
  - 3.4 Identify other activities or areas where changes might increase equipment reliability.
  - 3.5 Take action to have the required changes made.
- 4 **Facilitate team contribution to proactive maintenance**
    - 4.1 Monitor team's contribution to proactive maintenance.
    - 4.2 Arrange for competency development of team members, as required.
    - 4.3 Facilitate ongoing examination by the team of process reliability and overall equipment effectiveness (OEE).
    - 4.4 Arrange for follow through and implementation of team originated improvements.

## Foundation Skills

This section describes those required skills (language, literacy and numeracy) that are essential to performance.

Foundation skills essential to performance are explicit in the performance criteria of this unit of competency.

## Range of Conditions

This field allows for different work environments and conditions that may affect performance. Essential operating conditions that may be present (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) are included.

- Competitive systems and practices include one or more of:**
- lean operations
  - agile operations
  - preventative and predictive maintenance approaches
  - statistical process control systems, including six sigma and three sigma
  - Just in Time (JIT), kanban and other pull-related operations

	<ul style="list-style-type: none"> <li>control systems</li> <li>supply, value, and demand chain monitoring and analysis</li> <li>5S</li> <li>continuous improvement (kaizen)</li> <li>breakthrough improvement (kaizen blitz)</li> <li>cause/effect diagrams</li> <li>overall equipment effectiveness (OEE)</li> <li>takt time</li> <li>process mapping</li> <li>problem solving</li> <li>run charts</li> <li>standard procedures</li> <li>current reality tree.</li> </ul>
<b>Team includes one or more of:</b>	<ul style="list-style-type: none"> <li>work teams from all sections of the organisation including production, maintenance, technical, administration/finance and sales/marketing</li> <li>a formally designated team</li> <li>a group of employees in a common work area.</li> </ul>
<b>Proactive maintenance strategies and associated analyses include one or more of:</b>	<ul style="list-style-type: none"> <li>TPM and RCM</li> <li>root cause analysis (RCA)</li> <li>mean time between failures (MTBF)</li> <li>failure mode and effects analysis (FMEA)</li> <li>condition monitoring.</li> </ul>

## Unit Mapping Information

Release 1. Supersedes and is equivalent to MSS404083A Support proactive maintenance

## Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=5b04f318-804f-4dc0-9463-c3fb9a3fe998>

# Assessment Requirements for MSS404083 Support proactive maintenance

## Modification History

Release 1. Supersedes and is equivalent to MSS404083A Support proactive maintenance

## Performance Evidence

Evidence required to demonstrate competence in this unit must be relevant to and satisfy the requirements of the elements and performance criteria and include the ability, in one (1) or more work areas, to:

- communicate effectively with team on the proactive maintenance strategy being adopted and the role expected by the team in its implementation
- identify data required from team and for team for the proactive maintenance strategy
- analyse proactive maintenance strategy and current work practices of the team to identify opportunities for better fit
- differentiate between proactive and traditional maintenance strategies.

## Knowledge Evidence

Must provide evidence that demonstrates knowledge relevant to their job role sufficient to fulfil their job role independently, including:

- the production process as it applies to the team area of responsibility
- equipment controls and function used in team's work area
- data ranges and indicators for normal team operations
- data and equipment variations and fault indicators able to be identified by team during operations
- range of data required from team for proactive maintenance strategy
- typical analyses used by the proactive maintenance strategy and their implication for work of the team
- responsibilities of the team, maintenance staff and technical experts
- OEE and relationship to team's operational capability.

## Assessment Conditions

- The unit should be assessed holistically and the judgement of competence shall be based on a holistic assessment of the evidence.
- The collection of performance evidence:
  - should occur over a range of situations which include typical disruptions to normal, smooth operation of the workplace

- will typically include a supervisor/third-party report focussing on consistent performance and problem recognition and solving. A supervisor/third party report must be prepared by someone who has a direct, relevant, current relationship with the person being assessed and who is in a position to form a judgement on workplace performance relevant to the unit of competency
- must include proactive maintenance practices in own workplace
- will typically include the use of appropriate tools, equipment and safety gear requiring demonstration of preparation, operation, completion and responding to problems.
- Assessment should occur in operational workplace situations.
- Knowledge evidence may be collected concurrently with performance evidence (provided a record is kept) or through an independent process such as workbooks, written assessments or interviews (provided a record is kept).
- Assessment processes and techniques must be appropriate to the language, literacy and numeracy requirements of the work being performed and the needs of the candidate.
- Conditions for assessment must include access to all tools, equipment, materials and documentation required, including relevant workplace procedures, product and manufacturing specifications associated with this unit.
- Foundation skills are integral to competent performance of the unit and should not be assessed separately.
- Assessors must satisfy the assessor competency requirements that are in place at the time of the assessment as set by the VET regulator.
- The assessor must demonstrate both technical competency and currency.
- Technical competence can be demonstrated through:
  - relevant VET or other qualification/Statement of Attainment AND/OR
  - relevant workplace experience
- Currency can be demonstrated through:
  - performing the competency being assessed as part of current employment OR
  - having consulted with an organisation providing relevant environmental monitoring, management or technology services about performing the competency being assessed within the last twelve months.

## Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=5b04f318-804f-4dc0-9463-c3fb9a3fe998>

# MSS404084 Undertake process capability improvements

## Modification History

Release 1. Updated unit code. Changes to performance criteria. Range of conditions removed. Assessment requirements amended. Equivalent outcome.

## Application

This unit describes the skills and knowledge required to make process capability improvements, including analysing data from the process, developing improvements to eliminate variation due to assignable causes and then implementing actions.

This unit applies to a person who reviews a range of process capability data and information and makes (or arranges for) changes to be made to procedures, equipment or process and then recalculates the process capability and monitors resulting improvement actions. The person will typically be a technical expert, team leader or be in a role where they have sufficient technical understanding of processes in their own work and that of others to be able to suggest and justify process capability improvements.

Process capability may have been determined using either a six sigma or three sigma processes. This unit applies to the application of statistical methods and the determination of capability based on those methods.

No licensing or certification requirements exist at the time of publication. Relevant legislation, industry standards and codes of practice within Australia must be applied.

## Pre-requisite Unit

Nil

## Competency Field

Competitive systems and practices

## Unit Sector

Not applicable

## Elements and Performance Criteria

Elements describe the essential outcomes.

Performance criteria describe the performance needed to demonstrate achievement of the element.

- |   |                        |     |                            |
|---|------------------------|-----|----------------------------|
| 1 | <b>Obtain required</b> | 1.1 | Identify process for study |
|---|------------------------|-----|----------------------------|



Elements describe the essential outcomes.

Performance criteria describe the performance needed to demonstrate achievement of the element.

	<b>data</b>	1.2	Obtain or organise process to obtain required data and information
2	<b>Analyse information</b>	2.1	Read and interpret data and determine assignable causes
		2.2	Develop possible improvements to eliminate assignable causes
		2.3	Develop process improvement proposals
3	<b>Improve process capability</b>	3.1	Obtain required authorisations to implement improvements
		3.2	Liaise with relevant people to implement improvements
		3.3	Obtain or organise required data for improved process
		3.4	Recalculate process capability
		3.5	Implement revised data collection and processing and new capability information
		3.6	Monitor improvement actions and adjust

## Foundation Skills

This section describes those language, literacy, numeracy and employment skills that are essential to performance.

Foundation skills essential to performance are explicit in the performance criteria of this unit of competency.

## Unit Mapping Information

Release 1. Supersedes and is equivalent to MSS404050 Undertake process capability improvements.

## Links

The MSS Sustainability Companion Volume implementation Guides are available from VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=5b04f318-804f-4dc0-9463-c3fb9a3fe998>

# **Assessment Requirements for MSS404084 Undertake process capability improvements**

## **Modification History**

Release 1. Updated unit code. Changes to performance criteria. Range of conditions removed. Assessment requirements amended. Equivalent outcome.

## **Performance Evidence**

There must be evidence the candidate has completed the tasks outlined in the elements and performance criteria of this unit, and:

- planned and implemented at least 1 process capability improvement.

## **Knowledge Evidence**

There must be evidence the candidate has knowledge of:

- data collection and manipulation techniques
- variability, normal distribution and three and six sigma limits
- type of variations:
  - random variation (no assignable cause)
  - non-random variation (which has an assignable cause).
- causes of non-random variation in the process
- approaches to reducing variability.

## **Assessment Conditions**

Skills must have been demonstrated in the workplace or in a simulated environment that reflects workplace conditions, contingencies, facilities, equipment and resources.

Assessors must satisfy the NVR/AQTF mandatory competency requirements for assessors.

## **Links**

The MSS Sustainability Companion Volume implementation Guides are available from VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=5b04f318-804f-4dc0-9463-c3fb9a3fe998>

## **MSS407016 Lead a process to determine and solve root cause for a complex problem**

### **Modification History**

Release 1. Updated unit code. Changes to performance criteria. Range of conditions removed. Assessment requirements amended. Equivalent outcome.

### **Application**

This unit describes the skills and knowledge required to guide or lead a problem-solving process to solve complex and/or unusual problems. The problem-solving process will usually involve the use of either real or nominal groups to determine the root cause and propose the solution.

This unit applies to managers and/or technical experts who are confronted by complex problems to which they need to develop a solution. The problem may be related to any area or process within the organisation or in the value stream and may have been formally presented to the individual for consideration or arise as part of other work.

The person may or may not have the required technical expertise for the particular problem, although the problem will require technical expertise to be solved. The problem may be capable of being adequately defined at the beginning of the problem solving activity, or may be progressively defined through continued iterations of the problem-solving activity.

No licensing or certification requirements exist at the time of publication. Relevant legislation, industry standards and codes of practice within Australia must be applied.

### **Pre-requisite Unit**

Nil

### **Competency Field**

Competitive systems and practices

### **Unit Sector**

Not applicable

### **Elements and Performance Criteria**

Elements describe the essential outcomes.

Performance criteria describe the performance needed to demonstrate achievement of the element.

Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1 <b>Recognise complex problem</b>	<p>1.1     Identify a complex issue which needs to be addressed</p> <p>1.2     Undertake an initial investigation of the issue</p> <p>1.3     Determine initial areas of expertise and data which may be required to analyse the problem</p> <p>1.4     Write an initial definition of the problem</p>
2 <b>Develop problem-solving methodology</b>	<p>2.1     Draft a problem-solving methodology</p> <p>2.2     Develop required approaches and protocols for obtaining required data and information</p> <p>2.3     Establish group to assist with problem solving</p> <p>2.4     Allocate tasks, responsibilities and reporting arrangements to group</p> <p>2.5     Develop arrangements for consultation with required people outside of group</p>
3 <b>Analyse problem</b>	<p>3.1     Apply methodology</p> <p>3.2     Obtain data and information</p> <p>3.3     Review problem definition</p> <p>3.4     Review methodology</p> <p>3.5     Obtain additional data and information</p>
4 <b>Identify root cause</b>	<p>4.1     Map causal links for the problem</p> <p>4.2     Determine indicators of the problem or the problem precursors</p> <p>4.3     Identify causes which can be controlled</p>

Elements describe the essential outcomes.

Performance criteria describe the performance needed to demonstrate achievement of the element.

- |   |   |     |   |
|---|---|-----|---|
| 5 | <b>Develop a solution</b>                       | 5.1 | Develop solutions for controllable causes               |
|   |   | 5.2 | Determine cost benefit for proposed solutions           |
|   |   | 5.3 | Investigate proposed solutions for efficacy             |
|   |   | 5.4 | Select the best available solution                      |
|   |   | 5.5 | Obtain support and authorisations for proposed solution |
|   |   |     |   |
| 6 | <b>Check problem is solved and standardised</b> | 6.1 | Monitor indicators of problem and problem precursor     |
|   |   | 6.2 | Review problem solution and implementation              |
|   |   | 6.3 | Confirm solution is standardised                        |

## Foundation Skills

This section describes those language, literacy, numeracy and employment skills that are essential to performance.

Foundation skills essential to performance are explicit in the performance criteria of this unit of competency.

## Unit Mapping Information

Release 1. Supersedes and is equivalent to MSS407012 Lead a process to determine and solve root cause for a complex problem.

## Links

The MSS Sustainability Companion Volume implementation Guides are available from VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=5b04f318-804f-4dc0-9463-c3fb9a3fe998>

## **Assessment Requirements for MSS407016 Lead a process to determine and solve root cause for a complex problem**

### **Modification History**

Release 1. Updated unit code. Changes to performance criteria. Range of conditions removed. Assessment requirements amended. Equivalent outcome.

### **Performance Evidence**

There must be evidence the candidate has completed the tasks outlined in the elements and performance criteria of this unit, and:

- led a process to determine and solve root cause for at least 1 complex problem.

### **Knowledge Evidence**

There must be evidence the candidate has knowledge of:

- organisational goals, products and processes
- sources of data (actual and possible) within the organisation and the value stream
- techniques and methodologies of formal problem solving
- data required for problem solving and alternative or proxy data sources
- cost benefit analysis
- strategies for facilitation of real groups (physical and face to face) and nominal groups (never meets and may not know each other).

### **Assessment Conditions**

Skills must have been demonstrated in the workplace or in a simulated environment that reflects workplace conditions, contingencies, facilities, equipment and resources.

Assessors must satisfy the NVR/AQTF mandatory competency requirements for assessors.

### **Links**

The MSS Sustainability Companion Volume implementation Guides are available from VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=5b04f318-804f-4dc0-9463-c3fb9a3fe998>

# **MSTGN3007 Monitor and operate trade waste**

## **Modification History**

Release 1. Supersedes and is equivalent to LMTGN3007B Monitor and operate trade waste

## **Application**

This unit of competency covers the skills and knowledge required to monitor, operate, measure and report on trade waste system performance and process quality control.

This unit of competency applies to processing plant operations and inspection of work areas, monitoring, operating, measuring and reporting on trade waste systems.

Work may be conducted in restricted spaces or exposed conditions or controlled or open environments.

This unit of competency is applicable to all sectors of the textiles, clothing and footwear (TCF) industry.

Work may be conducted in small to large scale enterprises and may involve individual and team activities. Work is performed within defined procedures under direct supervision.

No licensing, legislative or certification requirements apply to this unit at the time of publication.

## **Pre-requisite Unit**

Nil

## **Competency Field**

Generic

## **Unit Sector**

Not applicable



## Elements and Performance Criteria

Elements describe the essential outcomes.

Performance criteria describe the performance needed to demonstrate achievement of the element.

- |   |  |     |   |
|---|--|-----|---|
| 1 | <b>Determine job requirements</b>          | 1.1 | Follow standard operating procedures (SOPs)   |
|   |  | 1.2 | Comply with work health and safety (WHS) requirements at all times  |
|   |  | 1.3 | Use appropriate personal protective equipment (PPE) in accordance with SOPs   |
|   |  | 1.4 | Identify job requirements from specifications, drawings, job sheets or work instructions  |
|   |  |     |   |
| 2 | <b>Monitor treatment plant performance</b> | 2.1 | Conduct and assess routine plant inspections in accordance with organisational and plant requirements                               |
|   |  | 2.2 | Collect and conduct tests of process samples  |
|   |  | 2.3 | Collect and report process data according to organisational and plant requirements and workplace procedures                         |
|   |  | 2.4 | Identify corrosion damage   |
|   |  |     |   |
| 3 | <b>Control chemical use</b>                | 3.1 | Use, handle and store chemicals in accordance with organisational and statutory requirements  |
|   |  | 3.2 | Prepare chemical dosing in accordance with plant processes and organisational and statutory requirements                            |
|   |  | 3.3 | Maintain information related to chemical supply and usage in accordance with statutory requirements                                 |
|   |  | 3.4 | Interact and communicate with other employees and relevant authorities  |
|   |  |     |   |
| 4 | <b>Operate and control processes</b>       | 4.1 | Monitor processes to maintain parameters of operation   |
|   |  | 4.2 | Identify and report process faults and operational conditions of plant in accordance with organisational and statutory requirements |

- 4.3 Assess basic system adjustments to enhance system performance in accordance with organisational and statutory requirements
- 4.4 Compile reports compiled from plant and system data to meet organisational and statutory requirements

## Foundation Skills

This section describes those required skills (language, literacy and numeracy) that are essential to performance.

Foundation skills essential to performance are explicit in the performance criteria of this unit of competency.

## Range of Conditions

This field allows for different work environments and conditions that may affect performance. Essential operating conditions that may be present (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) are included.

### **Workplace procedures include one or more of the following:**

- requirements prescribed by legislation, awards, agreements and conditions of employment
- SOPs
- work instructions
- oral, written and visual communication
- quality practices, including responsibility for maintenance of own work quality and contribution to quality improvement of team or section output
- housekeeping
- tasks related to environmental protection, waste disposal, pollution control and recycling
- WHS practices

### **Australian Standards include:**

- the relevant industry or Australian Standards that are current at the time this unit is being undertaken

### **Process includes, but is not limited to, one or more of the following:**

- chemical precipitation
- activated sludge
- biodegradable reduction
- solids handling

**Data includes, but is not limited to, one or more of the following:**

- plant performance data
- chemical usage

**Tests include, but are not limited to, one or more of the following:**

- settling tests
- pH
- dissolved oxygen

**System adjustments include, but are not limited to, one or more of the following:**

- pH correction
- dissolved oxygen levels

**Equipment includes, but is not limited to, one or more of the following:**

- electronic monitoring and metering systems
- manual chart recording systems
- laboratory testing and sampling equipment
- computerised equipment

## Unit Mapping Information

Release 1. Supersedes and is equivalent to LMTGN3007B Monitor and operate trade waste

## Links

Companion Volume implementation guides are found in VETNet -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=a203ec5c-de7d-406b-b3e1-8f1a9b76e92e>

# Assessment Requirements for MSTGN3007 Monitor and operate trade waste

## Modification History

Release 1. Supersedes and is equivalent to LMTGN3007B Monitor and operate trade waste

## Performance Evidence

Evidence required to demonstrate competence in this unit must be relevant to and satisfy the requirements of the elements and performance criteria, and include:

- reading and following work instructions, standard operating procedures (SOPs), safe work practices
- applying relevant standards
- conducting routine plant inspections, assessing processes, and collecting and conducting tests of process samples, in accordance with organisational and plant requirements
- complying with organisational and statutory requirements to use, handle and store chemicals, prepare and apply chemical and biological dosing
- maintaining accurate records of test results/work records
- communicating effectively within the workplace and maintaining information related to chemical supply and usage
- interpreting and applying established procedures
- identifying and reporting process faults and operational conditions of plant in accordance with organisational and statutory requirements
- compiling reports compiled from plant and system data to meet organisational and statutory requirements
- applying workplace procedures.

## Knowledge Evidence

Evidence must be provided that demonstrates knowledge of:

- safe work practices and procedures and use of personal protective equipment (PPE)
- relevant Australian Standards
- industry process and equipment
- system hydraulics and layout, control systems
- chemical dosing processes
- hazardous material handling procedures
- work health and safety (WHS) and environmental aspects of relevant testing processes
- workplace procedures and reporting processes
- quality practices
- workplace procedures
- recording and reporting practices.

## Assessment Conditions

- Assessors must:
  - satisfy the assessor competency requirements that are in place at the time of the assessment, as set by the VET regulator
  - have vocational competency in monitoring and operating trade waste, at least to the level being assessed, with relevant industry knowledge and experience.
- Assessment should occur in operational workplace situations. Where this is not possible, or where personal safety or environmental damage are limiting factors, assessment must occur in a sufficiently rigorous simulated environment reflecting realistic operational workplace conditions. This must cover all aspects of workplace performance, including environment, task skills, task management skills, contingency management skills and job role environment skills.
- Assessment processes and techniques must be appropriate to the language, literacy and numeracy requirements of the work being performed and the needs of the candidate.
- Conditions for assessment must include access to all tools, equipment, materials and documentation required, including relevant workplace procedures, product and manufacturing specifications associated with this unit.
- The unit is applicable to all TCF sectors and assessment must ensure it is delivered to suit the industry it is being applied to.

## Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=a203ec5c-de7d-406b-b3e1-8f1a9b76e92e>

## PMASUP420 Minimise environmental impact of process

### Modification History

Release 1. Supersedes and is equivalent to PMASUP420B Minimise environmental impact of process

### Application

This unit of competency covers the skills and knowledge required to minimise the environmental impact of a plant and/or process. It applies to all resources used and products made by the plant, capital projects and improvements brought about by changes in work practices and procedures.

This unit of competency applies to experienced operators or those in similar roles who are required to apply in-depth knowledge of process and plant to in order to develop practices or procedures for conserving resources and minimising pollution and waste that will deliver the most benefits.

No licensing, legislative or certification requirements apply to this unit at the time of publication.

### Pre-requisite Unit

Nil

### Competency Field

Support

### Unit Sector

### Elements and Performance Criteria

Elements describe the essential outcomes.

Performance criteria describe the performance needed to demonstrate achievement of the element.

1	<b>Develop resource conservation practices and/or procedures</b>	1.1	Identify the nature of resources used in the plant/process
		1.2	Identify the primary source of these resources
		1.3	Determine the impact of the depletion of these resources

- on the environment and society
- 1.4 Determine which resources will yield a greater benefit from their conservation
  - 1.5 Develop methods to reduce the consumption of these resources
  - 1.6 Complete required documentation to implement change
- 2 **Develop pollution minimisation practices and/or procedures**
    - 2.1 Identify the nature of pollutants produced by the plant/process
    - 2.2 Determine the sources of these pollutants within the plant/process
    - 2.3 Determine the impact of these pollutants on the environment and society
    - 2.4 Determine which pollutant will yield a greater benefit from their reduction
    - 2.5 Develop methods to reduce the production of this pollutant
    - 2.6 Complete required documentation to implement change
  - 3 **Develop waste minimisation practices and/or procedures**
    - 3.1 Identify the nature of wastes produced by the plant/process
    - 3.2 Determine the sources of these wastes within the plant/process
    - 3.3 Identify the impact of these wastes on the environment and society
    - 3.4 Determine which wastes will yield a greater benefit from their reduction
    - 3.5 Develop methods to reduce the production of this waste
    - 3.6 Complete required documentation to implement change

## Foundation Skills

This section describes those language, literacy, numeracy and employment skills that are essential to performance.

Foundation skills essential to performance are explicit in the performance criteria of this unit of competency.

## Range of Conditions

This field allows for different work environments and conditions that may affect performance. Essential operating conditions that may be present (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) are included.

**Regulatory framework** The latest version of all legislation, regulations, industry codes of practice and Australian/international standards, or the version specified by the local regulatory authority, must be used, and include one or more of the following:

- legislative requirements, including work health and safety (WHS)
- industry codes of practice and guidelines
- environmental regulations and guidelines
- Australian and other standards
- licence and certification requirements

All operations to which this unit applies are subject to stringent health, safety and environment (HSE) requirements, which may be imposed through state/territory or federal legislation, and these must not be compromised at any time. Where there is an apparent conflict between performance criteria and HSE requirements, the HSE requirements take precedence.

**Procedures** All operations must be performed in accordance with relevant procedures.

Procedures are written, verbal, visual, computer-based or in some other form, include one or more of the following:

- emergency procedures
- work instructions
- standard operating procedures (SOPs)
- safe work method statements (SWMS)
- formulas/recipes
- batch sheets
- temporary instructions
- any similar instructions provided for the smooth running of the plant.



## Unit Mapping Information

Release 1. Supersedes and is equivalent to PMASUP420B Minimise environmental impact of process

## Links

Companion Volume implementation guides are found in VETNet -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=9fc2cf53-e570-4e9f-ad6a-b228ffdb6875>

## **Assessment Requirements for PMASUP420 Minimise environmental impact of process**

### **Modification History**

Release 1. Supersedes and is equivalent to PMASUP420B Minimise environmental impact of process

### **Performance Evidence**

Evidence required to demonstrate competence in this unit must be relevant to and satisfy the requirements of the elements and performance criteria, and include the ability to:

- examine plant records, data and operating procedures and practices to determine options for:
  - maximisation of product yield from raw materials
  - reduction in volume of pollutants made and/or reduction in concentration/intensity of pollutants made and/or reduction in emissions
  - minimisation of wastes
- determine relative benefits of the options and develop processes/procedures to achieve preferred options
- document preferred options and complete written and/or electronic records.

### **Knowledge Evidence**

Evidence must be provided that demonstrates knowledge of:

- resources used by the plant and the impact on the environment and society of using resources
- nature and source of pollutants and waste materials produced by the plant
- nature and severity of the effect the pollutants and waste materials can have on the environment and society
- types of local conditions that can make environmental threats more ‘sensitive’
- pathways of entry to the environment from the plant
- process parameters and limits
- product specifications and tolerances
- principles of operation of plant/equipment
- science (e.g. physics, chemistry and biochemistry) relevant to the process, its materials and eco impacts
- regulatory framework
- organisation procedures, including those covering:
  - environmental management
  - safety, emergency and hazard control
  - procurement.

## Assessment Conditions

- The unit should be assessed holistically and the judgement of competence based on a holistic assessment of the evidence.
- The collection of performance evidence is best done from a report and/or folio of evidence drawn from:
  - a single project which provides sufficient evidence of the requirements of all the elements and performance criteria
  - multiple smaller projects which together provide sufficient evidence of the requirements of all the elements and performance criteria.
- A third-party report, or similar, may be needed to testify to the work done by the individual, particularly when the project has been done as part of a project team.
- Assessment should use a real project in an operational workplace. Where this is not possible or practical, assessment must occur using a sufficiently rigorous simulated environment reflecting realistic operational workplace conditions. This must cover all aspects of workplace performance, including environment, task skills, task management skills, contingency management skills and job role environment skills.
- Knowledge evidence may be collected concurrently with performance evidence or through an independent process, such as workbooks, written assessments or interviews (provided a record is kept).
- Assessment processes and techniques must be appropriate to the language, literacy and numeracy requirements of the work being performed and the needs of the candidate.
- Conditions for assessment must include access to all tools, equipment, materials and documentation required, including relevant workplace procedures, product and manufacturing specifications associated with this unit.
- The regulatory framework will be reflected in workplace policies and procedures and is not required to be independently assessed.
- Foundation skills are integral to competent performance of the unit and should not be assessed separately.
- Assessors must satisfy the assessor competency requirements that are in place at the time of the assessment as set by the VET regulator.
- In addition, the assessor or anyone acting in subject matter expert role in assessment must demonstrate both technical competency and currency. If the assessor cannot demonstrate technical competency and currency they must assess with a subject matter expert who does meet these requirements.
- Technical competence can be demonstrated through one or more of:
  - relevant VET or other qualification/Statement of Attainment
  - appropriate workplace experience undertaking the type of work being assessed under routine and non-routine conditions
  - appropriate workplace experience supervising/evaluating the type of work being assessed under routine and non-routine conditions
- Currency can be demonstrated through one or more of:
  - being currently employed undertaking the type of work being assessed

- being employed by the organisation undertaking the type of work being assessed and having maintained currency in accordance with that organisation's policies and procedures
- having consulted/had contact with an organisation undertaking the type of work being assessed within the last twelve months, the consultation/contact being related to assessment
- conducting on-the-job training/assessments of the type of work being assessed
- being an active member of a relevant professional body and participating in activities relevant to the assessment of this type of work.

## Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=9fc2cf53-e570-4e9f-ad6a-b228ffdb6875>

# PMBPROD211 Operate blow moulding equipment

## Modification History

Release 1. Supersedes and is equivalent to PMBPROD211B Operate blow moulding equipment

## Application

This unit of competency covers the skills and knowledge required to operate blow moulding equipment and ancillary equipment that is integral to the process.

This unit of competency applies to operators who are required to carry out pre-start, start and stop procedures, monitor and adjust the equipment, maintain feed and recognise routine and non-routine problems and take appropriate action.

This unit of competency applies to an individual working alone or as part of a team or group and working in liaison with other shift team members, team leader and supervisor, as appropriate.

No licensing, legislative or certification requirements apply to this unit at the time of publication.

## Pre-requisite Unit

Nil

## Competency Field

Production

## Unit Sector

Not applicable

## Elements and Performance Criteria

Elements describe the essential outcomes.

Performance criteria describe the performance needed to demonstrate achievement of the element.

- |   |                   |     |  |
|---|-------------------|-----|--|
| 1 | <b>Check work</b> | 1.1 | Identify work requirements from production plan or |
|---|-------------------|-----|--|

requirements		request
	1.2	Check product, materials and equipment meet requirements for job
	1.3	Recognise requirements which may not be in accordance with usual practice
	1.4	Ask questions of appropriate person to confirm unusual practice
	1.5	Ensure housekeeping is to requirements
	1.6	Identify hazards associated with the job and take appropriate action
	1.7	Perform other pre-operational checks in accordance with procedures
2	<b>Start up blow moulding equipment to procedures</b>	2.1 Conduct pre-start checks
		2.2 Start up equipment safely and 'dry run' to warm hydraulics and components to operating temperature before production, as required
		2.3 Check condition of equipment and introduce raw materials as required
3	<b>Operate blow moulding equipment to procedures</b>	3.1 Check process is operating within required limits
		3.2 Check product is in specification and to required quality standard
		3.3 Ensure product is consistently ready for next operation
		3.4 Maintain supply of materials as required
		3.5 Complete logs and records as required
		3.6 Collect and segregate scrap, trim and other materials as required
		3.7 Keep equipment and work area clean
		3.8 Pause machine cycle and perform emergency stop, as required

4	<b>Respond to routine problems to procedures</b>	4.1	Identify likely faults that occur during the operation
		4.2	Identify and take action on causes of routine faults in accordance with procedures
		4.3	Make sure appropriate records and log books of equipment operations are maintained to meet procedures
		4.4	Identify non-routine problems and report to designated person

## Foundation Skills

This section describes those required skills (language, literacy and numeracy) that are essential to performance.

Foundation skills essential to performance are explicit in the performance criteria of this unit of competency.

## Range of Conditions

This field allows for different work environments and conditions that may affect performance. Essential operating conditions that may be present (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) are included.

**Regulatory framework** The latest version of all legislation, regulations, industry codes of practice and Australian/international standards, or the version specified by the local regulatory authority, must be used.

Applicable legislation, regulations, standards and codes of practice include:

- health, safety and environmental (HSE) legislation, regulations and codes of practice relevant to the workplace, equipment and production processes and hazardous materials
- Australian/international standards relevant to the materials being used and products being made
- any relevant licence and certification requirements.

All operations to which this unit applies are subject to stringent HSE requirements, which may be imposed through state/territory or federal legislation, and these must not be compromised at any time. Where there is an

apparent conflict between performance criteria and such requirements the legislative requirements take precedence.

**Procedures** All operations must be performed in accordance with relevant procedures.

Procedures are written, verbal, visual, computer-based or in some other form, and include one or any combination of:

- emergency procedures
- work instructions
- standard operating procedures (SOPs)
- safe work method statements (SWMS)
- formulae/recipes
- batch sheets
- temporary instructions
- any similar instructions provided for the smooth running of the plant.

**Tools and equipment**

Tools and equipment include:

- blow moulding machines which may be bottom blow, top blow, needle blow, tail to tail blow, parison, pre-blow and pre-squeeze, parison stretching and parison orientation type machines
- ancillary equipment that is integral to the operation of the injection moulding process, including one or more of:
  - chillers/cooling towers
  - die heating equipment
  - hopper driers
  - mixing hoppers
  - dehumidifying driers
  - air compressors
  - dosing machines
  - colour blending equipment
  - conveyors.

Additional tools and equipment will be selected as required from:

- hand tools used in the process
- hoists/lifting equipment not requiring any special permits or licences
- manual handling aids such as hand carts and trolleys
- relevant personal protective equipment (PPE).



**Hazards** Hazards must be identified and controlled. Identifying hazards requires consideration of:

- weight, shape, volume of materials to be handled
- hazardous products and materials
- sharp edges, protrusions or obstructions
- slippery surfaces, spills or leaks
- rotational equipment or vibration
- high temperatures
- smoke, dust, vapours or other atmospheric hazards
- electricity
- gas
- gases and liquids under pressure
- structural hazards
- equipment failures
- machinery, equipment and product mass
- other hazards that might arise.

**Routine problems** Routine problems must be resolved by applying known solutions.

Routine problems are predictable and include one or more of:

- equipment/machine malfunction
- variations in temperature, pressure, speed, inflation
- variations in materials or contamination of materials
- incorrect quantity of materials/additives
- die/tooling problems or damage.
- product problems, such as:
  - wall thinning
  - holes
  - poor surface finish
  - warping
  - poor colour dispersion
  - ejection damage
  - colour contamination
  - black spots.

Known solutions are drawn from one or more of:

- procedures
- training
- remembered experience.

Non-routine problems must be reported according to according to relevant procedures.

## Unit Mapping Information

Release 1. Supersedes and is equivalent to PMBPROD211B Operate blow moulding equipment

## Links

Companion Volume implementation guides are found in VETNet -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=932aacef-7947-4c80-acc6-593719fe4090>

# Assessment Requirements for PMBPROD211 Operate blow moulding equipment

## Modification History

Release 1. Supersedes and is equivalent to PMBPROD211B Operate blow moulding equipment

## Performance Evidence

Evidence required to demonstrate competence in this unit must be relevant to and satisfy the requirements of the elements and performance criteria and demonstrate the ability to:

- read and interpret procedures, job specifications, basic machine control panels, material labels and safety data sheets (SDS)
- select and use tools and equipment to meet job specifications
- monitor blow moulding and ancillary equipment using measured/indicated data and smell, sight, sound and feel as appropriate
- monitor and interpret key variables, including:
  - machine conditions
  - production rate
  - reasons for interruptions
  - product integrity and general conformance to specifications
- operate and adjust the equipment to meet product quality and production output specifications
- pause the equipment or shut down equipment in normal and abnormal circumstances
- identify hazards and apply relevant hazard controls
- apply safety procedures
- apply housekeeping procedures
- apply waste management procedures
- recognise early warning signs of equipment/processes needing attention or with potential problems
- recognise routine and non-routine problems
- identify when the operator is able to rectify faults, when assistance is required and who is the appropriate source for assistance
- take action to resolve faults or report faults to appropriate personnel
- distinguish between possible causes of routine faults, including:
  - raw material variations/contamination
  - process abnormalities
  - procedural errors
  - mechanical abnormalities
- communicate effectively with team/work group and supervisors

- complete workplace records
- do basic arithmetical manipulations, including additions, subtractions, divisions, fractions and percentages.

## Knowledge Evidence

Must provide evidence that demonstrates knowledge relevant to their job sufficient to operate under routine only supervision and to solve routine problems, including knowledge of:

- the function of blow moulding equipment, machine components and guides
- principles of operation of the equipment
- purpose and requirements of 'dry running' before starting production
- the potential effects of variations in raw materials and equipment operation in relation to quality of product
- reasons for checking process control panels and reporting readings which are outside of normal range of process variability
- processing behaviour of polymers and the role of additives
- production workflow sequences and materials demand
- factors which may affect product quality or production output and appropriate remedies
- routine problems, their probable causes and relevant corrective actions
- organisation procedures relevant to the work environment/job role
- hierarchy of control
- hazards that may arise in the job/work environment and:
  - their possible causes
  - potential consequences
  - appropriate risk controls.

## Assessment Conditions

- The unit should be assessed holistically and the judgement of competence shall be based on a holistic assessment of the evidence.
- In all plants it may be appropriate to assess this unit concurrently with units such as:
  - teamwork
  - communication.
- The collection of performance evidence:
  - should occur over a range of situations which include typical disruptions to normal, smooth operation of an operating plant
  - will typically include a supervisor/third-party report or other evidence, focusing on consistent performance and problem recognition and solving. A supervisor/third-party report must be prepared by someone who has a direct, relevant, current relationship with the person being assessed and who is in a position to form a judgement on workplace performance relevant to the unit of competency
  - must include the use of an appropriate industrial item of equipment requiring demonstration of operation, start and stop procedures and responding to problems

- may use industry-based simulation for all or part of the unit particularly where safety, lack of opportunity or significant cost is an issue.
- Assessment should occur in operational workplace situations. Where this is not possible or where personal safety or environmental damage are limiting factors assessment must occur in a sufficiently rigorous simulated environment that reflects realistic operational workplace conditions. This must cover all aspects of workplace performance, including environment, task skills, task management skills, contingency management skills and job role environment skills.
- Assessment in a simulated environment should use evidence collected from demonstration of skills and one or more of:
  - walk-throughs
  - pilot plant operation
  - industry-based case studies/scenarios
  - 'what ifs'.
- Knowledge evidence may be collected concurrently with performance evidence or through an independent process, such as workbooks, written assessments or interviews.
- Assessment processes and techniques must be appropriate to the language, literacy and numeracy requirements of the work being performed and the needs of the candidate.
- Conditions for assessment must include access to all tools, equipment, materials and documentation required, including relevant workplace procedures, product and manufacturing specifications associated with this unit.
- The regulatory framework will be reflected in workplace policies and procedures and is not required to be independently assessed.
- Foundation skills are integral to competent performance of the unit and should not be assessed separately.
- Assessors must satisfy the assessor competency requirements that are in place at the time of the assessment as set by the VET regulator.
- In addition the assessor or anyone acting in subject matter expert role in assessment shall demonstrate both technical competency and currency. If the assessor cannot demonstrate technical competency and currency they shall assess with a subject matter expert who does meet these requirements.
- Technical competence can be demonstrated through one or more of:
  - relevant VET or other qualification/Statement of Attainment
  - appropriate workplace experience undertaking the type of work being assessed under routine and non-routine conditions
  - appropriate workplace experience supervising/evaluating the type of work being assessed under routine and non-routine conditions
- Currency can be demonstrated through one or more of:
  - being currently employed undertaking the type of work being assessed
  - being employed by the organisation undertaking the type of work being assessed and having maintained currency in accordance with that organisation's policies and procedures

- having consulted/had contact with an organisation undertaking the type of work being assessed within the last twelve months, the consultation/contact being related to assessment
- conducting on the job training/assessments of the type of work being assessed
- being an active member of a relevant professional body and participating in activities relevant to the assessment of this type of work.

## Links

Companion Volume implementation guides are found in VETNet -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=932aacef-7947-4c80-acc6-593719fe4090>

# PMBPROD270 Operate injection blow moulding equipment

## Modification History

Release 1. Supersedes and is equivalent to PMBPROD270B Operate injection blow moulding equipment

## Application

This unit of competency covers the skills and knowledge required to operate injection blow moulding equipment and ancillary equipment that is integral to the process.

This unit of competency applies to operators who are required to carry out pre-start, start and stop procedures; monitor and adjust the equipment; maintain feed; and recognise routine and non-routine problems and take appropriate action.

This unit of competency applies to an individual working alone or as part of a team or group and working in liaison with other shift team members, team leader and supervisor, as appropriate.

No licensing, legislative or certification requirements apply to this unit at the time of publication.

## Pre-requisite Unit

Nil

## Competency Field

Production

## Unit Sector

Not applicable

## Elements and Performance Criteria

Elements describe the essential outcomes.

Performance criteria describe the performance needed to demonstrate achievement of the element.

- |   |                   |     |  |
|---|-------------------|-----|--|
| 1 | <b>Check work</b> | 1.1 | Identify work requirements from procedures |
|---|-------------------|-----|--|

	<b>requirements</b>	1.2	Identify product, materials and equipment requirements for job
		1.3	Recognise hazards and take appropriate action
		1.4	Check with supervisor/appropriate person if requirements are not in accordance with usual practice
2	<b>Conduct pre-start checks as required</b>	2.1	Check safety gates and guards are in position and working
		2.2	Check raw materials are correct
		2.3	Undertake other pre-start checks to procedures
		2.4	Start up equipment safely and 'dry run' to warm hydraulics and components to operating temperature before production, as required
3	<b>Operate equipment to procedures</b>	3.1	Check condition of equipment and introduce raw materials as required
		3.2	Check product/process is within required limits
		3.3	Collect products and store as required
		3.4	Check product is in specification/to required quality standard
		3.5	Maintain supply of materials as required
		3.6	Complete logs and records when required
		3.7	Collect and reprocess/discard scrap/trim and other materials
		3.8	Clean up equipment and work area
		3.9	Pause equipment, or stop equipment in an emergency, as required
4	<b>Respond to routine problems</b>	4.1	Recognise known faults that occur during the operation
		4.2	Identify and take action on causes of routine faults



- to procedures**
- 4.3 Log problems as required
  - 4.4 Identify non-routine process and quality problems and take appropriate action

## Foundation Skills

This section describes those required skills (language, literacy and numeracy) that are essential to performance.

Foundation skills essential to performance are explicit in the performance criteria of this unit of competency.

## Range of Conditions

This field allows for different work environments and conditions that may affect performance. Essential operating conditions that may be present (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) are included.

**Regulatory framework** The latest version of all legislation, regulations, industry codes of practice and Australian/international standards, or the version specified by the local regulatory authority, must be used.

Applicable legislation, regulations, standards and codes of practice include:

- health, safety and environmental (HSE) legislation, regulations and codes of practice relevant to the workplace, equipment and production processes and hazardous materials
- Australian/international standards relevant to the materials being used and products being made
- any relevant licence and certification requirements.

All operations to which this unit applies are subject to stringent HSE requirements, which may be imposed through state/territory or federal legislation, and these must not be compromised at any time. Where there is an apparent conflict between performance criteria and such requirements the legislative requirements take precedence.

**Procedures** All operations must be performed in accordance with relevant procedures.

Procedures are written, verbal, visual, computer-based or in some other form, and include one or any combination of:

- emergency procedures
- work instructions
- standard operating procedures (SOPs)
- safe work method statements (SWMS)
- formulas/recipes
- batch sheets
- temporary instructions
- any similar instructions provided for the smooth running of the plant.

### **Tools and equipment**

Tools and equipment include:

- injection moulding machines which may be electrical, mechanical, electromechanical or hydraulic
- components of injection moulding machines, including material supply systems, plastification unit, dies/tools and injection blow units
- ancillary equipment that is integral to the process, including one or more of:
  - chillers
  - die heating equipment
  - hopper driers
  - mixing hoppers
  - dehumidifying driers
  - air compressors
  - dosing machines
  - colour blending equipment
  - conveyors.

Additional tools and equipment will be selected as required from:

- hand tools used in the process
- material loading equipment used for loading of raw materials
- relevant personal protective equipment (PPE).

### **Hazards**

Hazards must be identified and controlled. Identifying hazards requires consideration of:

- weight, shape, volume of materials to be handled
- hazardous products and materials
- sharp edges, protrusions or obstructions
- slippery surfaces, spills or leaks

- rotational equipment or vibration
- high temperatures
- smoke, dust, vapours or other atmospheric hazards
- electricity
- gas
- gases and liquids under pressure
- structural hazards
- equipment failures
- machinery, equipment and product mass
- other hazards that might arise.

**Routine problems**

Routine problems must be resolved by applying known solutions.

Routine problems are predictable and include one or more of:

- equipment malfunction
- variations in temperature, pressure, speed and inflation
- variations in materials
- contamination of materials
- mould damage
- mould/tooling problems
- product problems, such as:
  - wall thinning
  - holes
  - poor surface finish
  - warping
  - poor colour dispersion
  - ejection damage
  - colour contamination
  - black spots.

Known solutions are drawn from one or more of:

- procedures
- training
- remembered experience.

Non-routine problems must be reported according to according to relevant procedures.

## Unit Mapping Information

Release 1. Supersedes and is equivalent to PMBPROD270B Operate injection blow moulding equipment

## Links

Companion Volume implementation guides are found in VETNet -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=932aacef-7947-4c80-acc6-593719fe4090>

# Assessment Requirements for PMBPROD270 Operate injection blow moulding equipment

## Modification History

Release 1. Supersedes and is equivalent to PMBPROD270B Operate injection blow moulding equipment

## Performance Evidence

Evidence required to demonstrate competence in this unit must be relevant to and satisfy the requirements of the elements and performance criteria and demonstrate the ability to:

- read and interpret procedures, job specifications, basic machine control panels, material labels and safety data sheets (SDS)
- select and use tools and equipment to meet job specifications
- monitor injection blow moulding and ancillary equipment using measured/indicated data and smell, sight, sound and feel as appropriate
- monitor and interpret key variables, including:
  - operating temperatures
  - speed
  - cycle time
  - output rate
  - concentration or dispersion of colour
  - product weight
  - product wall thickness
  - product integrity and general conformance to specification/sample
- operate and adjust the equipment to meet product quality and production output specifications
- pause the equipment or shut down equipment in normal and abnormal circumstances
- identify hazards and apply relevant hazard controls
- apply safety procedures
- apply housekeeping procedures
- apply waste management procedures
- recognise early warning signs of equipment/processes needing attention or with potential problems
- recognise routine and non-routine problems
- identify when the operator is able to rectify faults, when assistance is required and who is the appropriate source for assistance
- take action to resolve faults or report faults to appropriate personnel
- distinguish between possible causes of routine faults, including:
  - raw material variations/contamination

- process abnormalities
- procedural errors
- mechanical abnormalities
- communicate effectively with team/work group and supervisors
- complete workplace records
- do basic arithmetical manipulations, including additions, subtractions, divisions, fractions and percentages.

## Knowledge Evidence

Must provide evidence that demonstrates knowledge relevant to their job sufficient to operate under routine only supervision and to solve routine problems, including knowledge of:

- the function of injection blow moulding equipment, machine components and guides
- principles of operation of the equipment
- the potential effects of variations in raw materials and equipment operation in relation to quality of product
- reasons for checking process control panels and reporting readings which are outside of normal range of process variability
- processing behaviour of polymers and the role of additives
- production workflow sequences and materials demand
- factors which may affect product quality or production output and appropriate remedies
- routine problems, their probable causes and relevant corrective actions
- organisation procedures relevant to the work environment/job role
- hierarchy of control
- hazards that may arise in the job/work environment and:
  - their possible causes
  - potential consequences
  - appropriate risk controls.

## Assessment Conditions

- The unit should be assessed holistically and the judgement of competence shall be based on a holistic assessment of the evidence.
- In all plants it may be appropriate to assess this unit concurrently with units such as:
  - teamwork
  - communication.
- The collection of performance evidence:
  - should occur over a range of situations which include typical disruptions to normal, smooth operation of an operating plant

- will typically include a supervisor/third-party report or other evidence, focusing on consistent performance and problem recognition and solving. A supervisor/third-party report must be prepared by someone who has a direct, relevant, current relationship with the person being assessed and who is in a position to form a judgement on workplace performance relevant to the unit of competency
- must include the use of an appropriate industrial item of equipment requiring demonstration of operation, start and stop procedures and responding to problems
- may use industry-based simulation for all or part of the unit particularly where safety, lack of opportunity or significant cost is an issue.
- Assessment should occur in operational workplace situations. Where this is not possible or where personal safety or environmental damage are limiting factors assessment must occur in a sufficiently rigorous simulated environment that reflects realistic operational workplace conditions. This must cover all aspects of workplace performance, including environment, task skills, task management skills, contingency management skills and job role environment skills.
- Assessment in a simulated environment should use evidence collected from demonstration of skills and one or more of:
  - walk-throughs
  - pilot plant operation
  - industry-based case studies/scenarios
  - 'what ifs'.
- Knowledge evidence may be collected concurrently with performance evidence or through an independent process, such as workbooks, written assessments or interviews.
- Assessment processes and techniques must be appropriate to the language, literacy and numeracy requirements of the work being performed and the needs of the candidate.
- Conditions for assessment must include access to all tools, equipment, materials and documentation required, including relevant workplace procedures, product and manufacturing specifications associated with this unit.
- The regulatory framework will be reflected in workplace policies and procedures and is not required to be independently assessed.
- Foundation skills are integral to competent performance of the unit and should not be assessed separately.
- Assessors must satisfy the assessor competency requirements that are in place at the time of the assessment as set by the VET regulator.
- In addition the assessor or anyone acting in subject matter expert role in assessment shall demonstrate both technical competency and currency. If the assessor cannot demonstrate technical competency and currency they shall assess with a subject matter expert who does meet these requirements.
- Technical competence can be demonstrated through one or more of:
  - relevant VET or other qualification/Statement of Attainment
  - appropriate workplace experience undertaking the type of work being assessed under routine and non-routine conditions
  - appropriate workplace experience supervising/evaluating the type of work being assessed under routine and non-routine conditions

- Currency can be demonstrated through one or more of:
  - being currently employed undertaking the type of work being assessed
  - being employed by the organisation undertaking the type of work being assessed and having maintained currency in accordance with that organisation's policies and procedures
  - having consulted/had contact with an organisation undertaking the type of work being assessed within the last twelve months, the consultation/contact being related to assessment
  - conducting on the job training/assessments of the type of work being assessed
  - being an active member of a relevant professional body and participating in activities relevant to the assessment of this type of work.

## Links

Companion Volume implementation guides are found in VETNet -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=932aacef-7947-4c80-acc6-593719fe4090>



# **PMBTECH406 Diagnose production equipment problems**

## **Modification History**

Release 1. Supersedes and is equivalent to PMBTECH406A Diagnose production equipment problems

## **Application**

This unit of competency covers the skills and knowledge required to diagnose production equipment problems. It applies to product faults, including reject products and other faults, and production faults/problems.

This unit of competency applies to advanced operators, technicians or those in similar roles who are required to determine the possible causes of product/production faults; investigate the likely equipment, plant and/or process causes of the faults; isolate the most probable cause; recommend the solution and monitor its implementation.

This unit of competency applies to an operator/technician applying specialised theoretical and technical knowledge and well developed skills in situations that require autonomy, discretion and judgement. The operator/technician will take the lead role in the activity but will need to liaise with a range of people at all levels in the organisation to obtain information and to implement the solution. The operator/technician will have detailed operational and process knowledge but is not required to demonstrate 'hands on' operation of equipment as part of this competency.

No licensing, legislative or certification requirements apply to this unit at the time of publication.

## **Pre-requisite Unit**

Nil

## **Competency Field**

Technical

## **Unit Sector**

Not applicable

## Elements and Performance Criteria

Elements describe the essential outcomes.

Performance criteria describe the performance needed to demonstrate achievement of the element.

- |   |   |     |  |
|---|---|-----|--|
| 1 | <b>Identify faults in products/product ion</b>            | 1.1 | Examine products/production process  |
|   |   | 1.2 | Identify faults  |
|   |   | 1.3 | Categorise faults according to type/likely cause   |
|   |   | 1.4 | Prioritise faults for action   |
|   |   |     |  |
| 2 | <b>Determine most probable possible cause(s) of fault</b> | 2.1 | Analyse fault to determine possible causes   |
|   |   | 2.2 | Investigate possible causes to eliminate less probable causes  |
|   |   | 2.3 | Short list probable causes   |
|   |   | 2.4 | Check hypothesis of cause(s) is supported by the data available  |
|   |   | 2.5 | Identify most probable cause   |
|   |   |     |  |
| 3 | <b>Implement solution to fault</b>                        | 3.1 | Develop recommended solution to fault  |
|   |   | 3.2 | Check health, safety and environment (HSE) implications of solution and modify solution as appropriate |
|   |   | 3.3 | Communicate the recommendation as appropriate  |
|   |   | 3.4 | Check recommendation has been understood and can be implemented  |
|   |   | 3.5 | Check all hazard controls are in place   |
|   |   | 3.6 | Monitor progress of implementation   |
|   |   | 3.7 | Modify recommended solution as required  |
|   |   |     |  |
| 4 | <b>Check fault</b>  | 4.1 | Monitor product/process for fault  |

<b>solution has worked</b>	4.2	Monitor HSE impacts of changes
	4.3	Repeat analysis and solution process if required
	4.4	Update records and procedures to reflect successful solution

## Foundation Skills

This section describes those required skills (language, literacy and numeracy) that are essential to performance.

Foundation skills essential to performance are explicit in the performance criteria of this unit of competency.

## Range of Conditions

This field allows for different work environments and conditions that may affect performance. Essential operating conditions that may be present (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) are included.

**Regulatory framework** The latest version of all legislation, regulations, industry codes of practice and Australian/international standards, or the version specified by the local regulatory authority, must be used.

Applicable legislation, regulations, standards and codes of practice include:

- HSE legislation, regulations and codes of practice relevant to the workplace, manual handling, hazardous materials
- Australian/international standards relevant to the materials being used and products being made
- any relevant licence and certification requirements.

All operations to which this unit applies are subject to stringent HSE requirements, which may be imposed through state/territory or federal legislation, and these must not be compromised at any time. Where there is an apparent conflict between performance criteria and such requirements the legislative requirements take precedence.

**Procedures** All operations must be performed in accordance with relevant procedures.

Procedures are written, verbal, visual, computer-based or in some other form, and include one or any combination of:

- technical specifications
- technical drawings
- test procedures
- emergency procedures
- work instructions
- standard operating procedures (SOPs)
- safe work method statements (SWMS)
- formulas/recipes
- batch sheets
- temporary instructions
- any similar instructions provided for the smooth running of the plant.

**Hazards** Hazards must be identified and controlled. Identifying hazards requires consideration of:

- hazardous products and materials
- vapours or other atmospheric hazards
- interaction of polymers, additives and other materials
- sharp edges, protrusions or obstructions
- slippery surfaces, spills or leaks
- structural hazards
- equipment failures
- machinery, equipment and product mass
- other hazards that might arise.

## Unit Mapping Information

Release 1. Supersedes and is equivalent to PMBTECH406A Diagnose production equipment problems

## Links

Companion Volume implementation guides are found in VETNet -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=932aacef-7947-4c80-acc6-593719fe4090>

# **Assessment Requirements for PMBTECH406 Diagnose production equipment problems**

## **Modification History**

Release 1. Supersedes and is equivalent to PMBTECH406A Diagnose production equipment problems

## **Performance Evidence**

Evidence required to demonstrate competence in this unit must be relevant to and satisfy the requirements of the elements and performance criteria and demonstrate the ability to:

- read and interpret test results, technical information, product specifications, instruments/control panels, material labels and safety data sheets (SDS)
- examine products/process to identify faults via one (1) or more of:
  - visual examination
  - examination of product quality or other records
  - examination of inspection records
  - examination of test results
  - specific examination testing undertaken as part of a product improvement activity
- analyse the faults to identify all feasible causes of the problem
- investigate possible causes to short list probable causes including one (1) or more of:
  - talking with operators and others
  - checking machine histories for prevailing process conditions
  - checking current process/equipment conditions
  - carrying out small tests to determine the likelihood of a causal link between a condition and a fault
- confirm most probable cause based on available data
- develop and communicate solution to the fault which meets safety requirements
- monitor implementation of the solution and review and make adjustments as required
- communicate effectively with team/work group and supervisors
- complete workplace records
- document updates to procedures
- write equipment/process condition specifications.

## **Knowledge Evidence**

Must provide evidence that demonstrates knowledge relevant to their job sufficient to fulfil their job role including knowledge of:

- how the process/equipment works

- characteristics of materials and their behaviour in relation to process conditions and stages of production
- impact of variations process conditions on the product
- impacts of equipment failure/change/variation on the product
- changes to materials at various stages of production
- quality/inspection/testing regime and relationship of results of to process conditions and equipment faults
- types of product faults, including variations in:
  - colour
  - surface finish
  - size/shape
  - physical properties
  - chemical properties
  - biological/biochemical/microbiological properties
- types of process/equipment condition problems, including:
  - settings, such as temperature and pressure
  - rates, such as feed rate and flow rate
  - setting and adjustment of equipment parts
  - worn and broken equipment parts
- product faults that can be caused by process/equipment problems and possible solutions
- organisation procedures relevant to the work environment/job role
- hierarchy of control
- hazards that may arise in the job/work environment and:
  - their possible causes
  - potential consequences
  - appropriate risk controls.

## Assessment Conditions

- The unit should be assessed holistically and the judgement of competence shall be based on a holistic assessment of the evidence.
- The diagnosis and solving of a number of faults with different types of causes is required, including:
  - product defect with process condition cause
  - product defect with equipment problem cause
  - process fault/problem with process condition or equipment cause.
- The collection of performance evidence is best done from a report and/or folio of evidence drawn from:
  - a single project which provides sufficient evidence of the requirements of all the elements and performance criteria
  - multiple smaller projects which together provide sufficient evidence of the requirements of all the elements and performance criteria.

- A third-party report, or similar, may be needed to testify to the work done by the individual, particularly when the project has been done as part of a project team.
- Assessment should use a real project in an operational workplace. Where this is not possible or where personal safety or environmental damage are limiting factors assessment must occur using a sufficiently rigorous simulated environment that reflects realistic operational workplace conditions. This must cover all aspects of workplace performance, including environment, task skills, task management skills, contingency management skills and job role environment skills.
- Assessment in a simulated environment should use evidence collected from demonstration of skills and one or more of:
  - walk-throughs
  - pilot plant operation
  - industry-based case studies/scenarios
  - ‘what ifs’.
- Knowledge evidence may be collected concurrently with performance evidence or through an independent process, such as workbooks, written assessments or interviews.
- Assessment processes and techniques must be appropriate to the language, literacy and numeracy requirements of the work being performed and the needs of the candidate.
- Conditions for assessment must include access to all tools, equipment, materials and documentation required, including relevant workplace procedures, product and manufacturing specifications associated with this unit.
- The regulatory framework will be reflected in workplace policies and procedures and is not required to be independently assessed.
- Foundation skills are integral to competent performance of the unit and should not be assessed separately.
- Assessors must satisfy the assessor competency requirements that are in place at the time of the assessment as set by the VET regulator.
- In addition the assessor or anyone acting in subject matter expert role in assessment shall demonstrate both technical competency and currency. If the assessor cannot demonstrate technical competency and currency they shall assess with a subject matter expert who does meet these requirements.
- Technical competence can be demonstrated through one or more of:
  - relevant VET or other qualification/Statement of Attainment
  - appropriate workplace experience undertaking the type of work being assessed under routine and non-routine conditions
  - appropriate workplace experience supervising/evaluating the type of work being assessed under routine and non-routine conditions
- Currency can be demonstrated through one or more of:
  - being currently employed undertaking the type of work being assessed
  - being employed by the organisation undertaking the type of work being assessed and having maintained currency in accordance with that organisation’s policies and procedures

- having consulted/had contact with an organisation undertaking the type of work being assessed within the last twelve months, the consultation/contact being related to assessment
- conducting on the job training/assessments of the type of work being assessed
- being an active member of a relevant professional body and participating in activities relevant to the assessment of this type of work.

## Links

Companion Volume implementation guides are found in VETNet -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=932aacef-7947-4c80-acc6-593719fe4090>



# RIICBM305D Install pre-cast concrete bridge decks

## Modification History

Release	Comment
1	This unit replaces RIICBM305A Install pre-cast concrete bridge decks
2	<p>Corrected Knowledge Evidence formatting.</p> <p>Required frequency and volume of evidence amended in Performance evidence.</p> <p>Substantial amendments made in Assessment Conditions field, including: references to Industry Sectors, assessor and subject matter expert experience requirements, how assessment should be conducted and what it should confirm.</p>

## Application

This unit describes a participant's skills and knowledge required to apply install pre-cast concrete bridge decks in Civil Construction.

This unit is appropriate for those working in operational roles.

Licensing, legislative, regulatory and certification requirements that apply to this unit can vary between states, territories, and Industry sectors. Relevant information must be sourced prior to application of the unit.

## Pre-requisite Unit

## Elements and Performance Criteria

1. Plan and prepare to install pre-cast concrete bridge decks	<p>1.1 Access, interpret and apply documentation to install pre-cast concrete bridge decks and ensure the work activity is compliant</p> <p>1.2 Obtain, interpret, clarify and confirm work instructions before proceeding</p> <p>1.3 Confirm and apply environmental protection and safety requirements</p> <p>1.4 Obtain, interpret and implement traffic management signage</p> <p>1.5 Select and check for faults plant, tools and equipment to carry out tasks</p>
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	1.6 Identify, address and report hazards, risks and environmental issues 1.7 Obtain and interpret emergency procedures, and be prepared for fire/accident/emergency
2. Install bearings	2.1 Determine bearing types and position 2.2 Check bearing dimensions and material for quality 2.3 Install bearings 2.4 Identify locating brackets/bolts and install in preparation for placement of girders
3. Install concrete bridge deck	3.1 Prepare deck components for grouting prior to placement 3.2 Place deck components 3.3 Carry out and complete pre-fabricated concrete decking grouting 3.4 Insert and tension pre-fabricated concrete decking transverse stressing bar 3.5 Grout transverse stressing bar 3.6 Grout anchor bolts 3.7 Place and specify deck joints of pre-fabricated decking and scuppers
4. Fix bridge fittings	4.1 Fit posts and bridge rails 4.2 Assemble and install pre-fabricated stairs
5. Clean up	5.1 Clear work area and dispose of or recycle materials 5.2 Clean, check, maintain and store plant, tools and equipment

## Foundation Skills

Foundation skills essential to performance are explicit in the performance criteria of this unit. Further information is available in the Resources and Infrastructure Industry Training Package Companion Volume.

## Unit Mapping Information

RIICBM305A Install pre-cast concrete bridge decks

## Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=88a61002-9a21-4386-aaf8-69c76e675272>

# Assessment Requirements for RIICBM305D Install pre-cast concrete bridge decks

## Modification History

Release	Comment
1	This unit replaces RIICBM305A Install pre-cast concrete bridge decks
2	<p>Corrected Knowledge Evidence formatting.</p> <p>Required frequency and volume of evidence amended in Performance evidence.</p> <p>Substantial amendments made in Assessment Conditions field, including: references to Industry Sectors, assessor and subject matter expert experience requirements, how assessment should be conducted and what it should confirm.</p>

## Performance Evidence

Evidence is required to be collected that demonstrates a candidate's competency in this unit. Evidence must be relevant to the roles within this sector's work operations and satisfy all of the requirements of the performance criteria of this unit and include evidence that the candidate:

- locates and applies applicable legislation, documentation, policies and procedures
- works effectively with others to undertake and complete the installation of pre-cast concrete bridge decks that meets all of the required outcomes including:
  - communicating clearly and concisely with others to receive and clarify work instructions
  - using a range of communication techniques and systems such as signage to advise others of work activity and exclusion zones
- demonstrates completion of installing pre-cast concrete bridge decks that safely, effectively and efficiently meets all of the required outcomes on more than one (1) occasion including:
  - installing bearings and brackets/bolts in preparation for placement of girders
  - installing pre-cast concrete deck units including installation of transverse stressing bars and bearings on a multi-span bridge with a minimum length of twenty (20) metres to specifications
  - assembling and installing pre-fabricated stairs

## Knowledge Evidence

The candidate must demonstrate knowledge of the following in applying the install pre-cast concrete bridge decks through:

- applying legislative, organisational and site requirements and procedures for:
  - risk assessment and management
  - site and equipment safety requirements
  - bridge construction and sequencing
  - pre-cast concrete bridge decks and installation
  - bearing types and installation
  - safe lifting techniques
  - safe working procedures, working at heights and over water
  - project quality requirements
  - civil construction terminology
- interpreting engineering drawings
- equipment types, characteristics, technical capabilities and limitations
- site isolation and traffic control responsibilities and authorities
- safety data sheets and materials handling methods
- JSA/JSEA/safe work method statements

## Assessment Conditions

- An assessor of this unit must satisfy the requirements of the NVR/AQTF or their successors; and Industry regulations for certification and licensing; and,
- this unit must be assessed in the context of this sector's work environment; and,
- this unit must be assessed in compliance with relevant legislation/regulation and using policies, procedures, processes and operational manuals directly related to the industry sector for which it is being assessed; and,
- assessment may be conducted in conjunction with the assessment of other Units of Competency; and,
- assessment must confirm consistent performance can be applied in a range of relevant workplace circumstances; and,
- assessors must demonstrate the performance evidence, and knowledge evidence as outlined in this Unit of Competency, and through the minimum years of current\* work experience specified below in an Industry sector relevant to the outcomes of the unit; or,
- where the assessor does not meet experience requirements a co-assessment or partnership arrangement must exist between the qualified assessor and an Industry subject matter expert. The Industry subject matter expert should hold the unit being assessed (or an equivalent unit) and/or demonstrate equivalence of skills and knowledge at the unit level. An Industry technical expert must also demonstrate skills and knowledge from the minimum years of current work experience specified below in the Industry sector, including time spent in roles related to the unit being assessed; and,

- assessor and Industry subject matter expert requirements differ depending on the Australian Qualifications Framework Level (AQF) of the qualification being assessed and/or Industry Sector as follows:

Industry sector	AQF** Level	Required assessor or Industry subject matter expert experience
Drilling, Metalliferous Mining, Coal Mining, Extractive (Quarrying) and Civil Construction	1	1 Year
	2	2 Years
Drilling, Coal Mining and Extractive (Quarrying)	3-6	3 Years
Metalliferous Mining and Civil Construction	3-6	5 Years
Other sectors	Where this Unit is being assessed outside of the Resources and Infrastructure Sectors assessor and/or Industry subject matter expert experience should be in-line with industry standards for the sector in which it is being assessed and where no Industry standard is specified should comply with any relevant regulation.	

\*Assessors can demonstrate current work experience through employment within Industry in a role relevant to the outcomes of the Unit; or, for external assessors this can be demonstrated through exposure to Industry by conducting frequent site assessments across various locations.

\*\*Where a unit is being delivered outside of a Qualification the first numeric character in the Unit code should be considered to indicate the AQF level

## Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=88a61002-9a21-4386-aaf8-69c76e675272>

## RIIHAN305D Operate a gantry or overhead crane

### Modification History

Release	Comment
1	This unit replaces RIIHAN305A Operate a gantry or overhead crane.
2	Editorial corrections Amended reference to Licensing requirements in Unit Application
3	Required frequency and volume of evidence amended in Performance evidence.  Substantial amendments made in Assessment Conditions field, including: references to Industry Sectors, assessor and subject matter expert experience requirements, how assessment should be conducted and what it should confirm.

### Application

This unit describes a participant's skills and knowledge required to operate a gantry or overhead crane in the Resources and Infrastructure Industries.

This unit is appropriate for those working in operational roles.

Licensing, legislative, regulatory and certification requirements that apply to this unit can vary between states, territories and industry sectors. Relevant information must be sourced prior to application of the unit.

### Elements and Performance Criteria

1. Plan and prepare for gantry/overhead crane operations	1.1 Access, interpret and apply crane operation documentation and ensure the work activity is compliant 1.2 Obtain, read, interpret, clarify and confirm work requirements 1.3 Identify and address potential risks, hazards and environmental issues, and implement control measures 1.4 Select and wear personal protective equipment appropriate for work activities 1.5 Coordinate activities with others prior to commencement and throughout operations
2. Operate	2.1 Prepare load for lift in accordance with crane limitations and

gantry/overhead crane	<p>rigging requirements</p> <p>2.2 Perform pre-start, start-up, park-up and shutdown procedures</p> <p>2.3 Confirm the work area hazards are removed or controlled prior to commencing the lift</p> <p>2.4 Interpret signals in accordance with AS2550</p> <p>2.5 Operate controls to lift, transfer and lower loads</p> <p>2.6 Monitor lift operations and ensure compliance</p>
3. Perform gantry/overhead crane operator maintenance	<p>3.1 Inspect crane for faults</p> <p>3.2 Perform routine operational servicing, lubrication and housekeeping tasks</p> <p>3.3 Process written records</p>

## Foundation Skills

Foundation skills essential to performance are explicit in the performance criteria of this unit. Further information is available in the Resources and Infrastructure Industry Training Package Companion Volume.

## Unit Mapping Information

RIIHAN305A Operate a gantry or overhead crane

## Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=88a61002-9a21-4386-aaf8-69c76e675272>



# Assessment Requirements for RIIHAN305D Operate a gantry or overhead crane

## Modification History

Release	Comment
1	This unit replaces RIIHAN305A Operate a gantry or overhead crane.
2	Editorial corrections Amended reference to Licensing requirements in Unit Application
3	Required frequency and volume of evidence amended in Performance evidence.  Substantial amendments made in Assessment Conditions field, including: references to Industry Sectors, assessor and subject matter expert experience requirements, how assessment should be conducted and what it should confirm.

## Performance Evidence

Evidence is required to be collected that demonstrates a candidate's competency in this unit. Evidence must be relevant to the roles within this sector's work operations and satisfy all of the requirements of the performance criteria of this unit and include evidence that the candidate:

- locates and applies relevant documentation, policies and procedures
- implements the requirements, procedures and techniques for the safe, effective and efficient completion of the operation of a gantry or overhead crane including:
  - planning and preparing for operating the gantry or overhead crane
  - performing crane inspection and fault finding
  - accessing, interpreting and applying technical information
  - selecting and using relevant tools and equipment
- works effectively with others to undertake and complete the operation of a gantry or overhead crane that meets all of the required outcomes including:
  - using a range of communication techniques and equipment to coordinate activities with others
  - maintaining all written and verbal reporting requirements and procedures
- demonstrates completion of operating a gantry or overhead crane that safely, effectively and efficiently meets all of the required outcomes on more than one (1) occasion including:
  - performing pre-start, start-up, park-up and shutdown procedures

- operating crane controls to lift, transfer and lower loads
- completing maintenance operations, including:
  - inspection of gantry or overhead crane
  - performing operational servicing and lubrication
- calculating volume and weights
- disposing of environmentally sensitive fluids and materials

## Knowledge Evidence

The candidate must demonstrate knowledge of the following when operating a gantry or overhead crane:

- accessing and applying the National Standard for High Risk Work
- identifying crane equipment characteristics, technical capabilities and limitations
- accessing, interpreting and applying technical crane information
- applying fault finding techniques
- identifying, interpreting and using hand and whistle signals

## Assessment Conditions

- An assessor of this unit must satisfy the requirements of the NVR/AQTF or their successors; and Industry regulations for certification and licensing; and,
- this unit is best assessed in the context of this sector's work environment;
- where personal safety or environmental damage are limiting factors, assessment may occur in a simulated environment provided it is realistic and sufficiently rigorous to cover all aspects of this sector's workplace performance, including environment, task skills, task management skills, contingency management skills and job role environment skills; and,
- this unit must be assessed in compliance with relevant legislation/regulation and using policies, procedures, processes and operational manuals directly related to the industry sector for which it is being assessed; and,
- assessment may be conducted in conjunction with the assessment of other Units of Competency; and,
- assessment must confirm consistent performance can be applied in a range of relevant workplace circumstances; and,
- assessors must demonstrate the performance evidence, and knowledge evidence as outlined in this Unit of Competency, and through the minimum years of current\* work experience specified below in an Industry sector relevant to the outcomes of the unit; or,
- where the assessor does not meet experience requirements a co-assessment or partnership arrangement must exist between the qualified assessor and an Industry subject matter expert. The Industry subject matter expert should hold the unit being assessed (or an equivalent unit) and/or demonstrate equivalence of skills and knowledge at the unit level. An Industry technical expert must also demonstrate skills and knowledge from the minimum years of current work experience specified below in the Industry sector, including time spent in roles related to the unit being assessed; and,

- assessor and Industry subject matter expert requirements differ depending on the Australian Qualifications Framework Level (AQF) of the qualification being assessed and/or Industry Sector as follows:

Industry sector	AQF** Level	Required assessor or Industry subject matter expert experience
Drilling, Metalliferous Mining, Coal Mining, Extractive (Quarrying) and Civil Construction	1	1 Year
	2	2 Years
Drilling, Coal Mining and Extractive (Quarrying)	3-6	3 Years
Metalliferous Mining and Civil Construction	3-6	5 Years
Other sectors	Where this Unit is being assessed outside of the Resources and Infrastructure Sectors assessor and/or Industry subject matter expert experience should be in-line with industry standards for the sector in which it is being assessed and where no Industry standard is specified should comply with any relevant regulation.	

\*Assessors can demonstrate current work experience through employment within Industry in a role relevant to the outcomes of the Unit; or, for external assessors this can be demonstrated through exposure to Industry by conducting frequent site assessments across various locations.

\*\*Where a unit is being delivered outside of a Qualification the first numeric character in the Unit code should be considered to indicate the AQF level

## Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=88a61002-9a21-4386-aaf8-69c76e675272>

## RIIMPO319E Conduct backhoe/loader operations

### Modification History

Release	Comments
Release 1	This version first released with RII Resources and Infrastructure Industry Training Package Version 3.0.

### Application

This unit describes the skills and knowledge required to operate a backhoe/loader to load, distribute and place materials.

This unit applies to those working in site based roles.

Licensing, legislative, regulatory and certification requirements that apply to this unit can vary between states, territories, and industry sectors, and must be sourced from state jurisdictions prior to applying this unit.

### Unit Sector

Civil infrastructure

### Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Plan and prepare for backhoe/loader operations	<ul style="list-style-type: none"><li>1.1 Access, interpret and apply backhoe/loader operations documentation</li><li>1.2 Obtain, interpret, clarify and confirm work instructions</li><li>1.3 Identify hazards and environmental issues, assess the risks and implement control measures in line with workplace policies</li><li>1.4 Select and wear personal protective equipment required for work activities</li><li>1.5 Identify, obtain and implement signage traffic management requirements according to standard operating procedures and safe work practices</li><li>1.6 Select required backhoe/loader equipment and confirm suitability</li></ul>

ELEMENT	PERFORMANCE CRITERIA
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	<p>for work activities</p> <p>1.7 Obtain and interpret emergency procedures for backhoe/loaders, and be prepared for fires, accidents and emergencies</p> <p>1.8 Coordinate and communicate planned activities with others at the site prior to commencement of work activity</p>
2. Operate backhoe/loader in line with established requirements	<p>2.1 Carry out prestart and start-up checks in line with workplace procedures</p> <p>2.2 Identify faults or defects and rectify or report within scope of own responsibility and according to workplace procedures</p> <p>2.3 Drive and operate machine using techniques suited to equipment capabilities, site and work conditions, and according to workplace procedures</p> <p>2.4 Monitor hazards and risks during operations , and ensure safety of self, other personnel, plant and equipment</p> <p>2.5 Monitor and manage equipment performance using indicators and alarms</p>
3. Load, carry and place materials to complete work activity	<p>3.1 Establish weight of load and ensure it is within safe operational limits of the machine</p> <p>3.2 Use lifting gear within safe working load requirements and in line with workplace procedures</p> <p>3.3 Position and locate machinery to ensure stable and effective shift materials according to work requirements</p> <p>3.4 Shift materials safely and effectively, using hand, audible and communication signal, in line with workplace procedures</p> <p>3.5 Park up, shut down, secure and carry out post operational inspection of equipment in line with workplace procedures</p>
4. Select, remove, fit and attachments for a backhoe/loader	<p>4.1 Select attachment for the task and fit attachment in line with workplace procedures</p> <p>4.2 Test attachment and ensure correct fitting and operation</p> <p>4.3 Use attachment within design limits and in accordance with workplace procedures</p> <p>4.4 Remove, clean and store attachments in designated location in line with workplace procedures</p>
5. Relocate the	5.1 Prepare backhoe/loader for relocation

ELEMENT	PERFORMANCE CRITERIA
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
backhoe/ loader	5.2 Move backhoe/loader safely between worksites, observing relevant codes and traffic management requirements
6. Conduct housekeeping activities	6.1 Clear work area and dispose of or recycle materials according to workplace procedures 6.2 Manage and/or report hazards to maintain a safe working environment 6.3 Complete and file or distribute documentation in a manner that complies with workplace practices

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential to performance.*

Skill	Description
Reading	<ul style="list-style-type: none"> <li>Identifies and interprets information from workplace procedures, documentation, legislation and regulations</li> </ul>
Numeracy	<ul style="list-style-type: none"> <li>Uses equipment operating capacity schedule to confirm safe weight load limits</li> </ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
RIIMPO319E Conduct backhoe/loader operations (Release 1)	RIIMPO319D Conduct backhoe/loader operations (Release 3)	Minor updates to reflect changes to operator maintenance activities and assessment for attachments	Equivalent unit

## Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=88a61002-9a21-4386-aaf8-69c76e675272>

# Assessment Requirements for RIIMPO319E Conduct backhoe/loader operations

## Modification History

Release	Comments
Release 1	This version first released with RII Resources and Infrastructure Industry Training Package Version 3.0.

## Performance Evidence

The candidate must demonstrate the ability to complete the tasks outlined in the elements and performance criteria of this unit.

The candidate must demonstrate completion of loader/backhoe operations that safely, effectively and efficiently follows workplace procedures to carry out work activity on at least two occasions, and include:

- conducting prestart checks prior to commencing operations and shutdown procedures on completion of operations
- driving and operating the equipment, and adjusting techniques to suit site conditions
- completion of operations to specification using at least two different material types (i.e. one different material type per occasion) including:
  - mixing materials
  - stripping/spreading materials
  - trench excavation
  - backfilling
  - lifting and carry materials
  - loading dump trucks, wagons, hoppers, chutes, and cutting/boxing
- selecting, fitting, testing, using and removing at least two attachments (i.e. one attachment per occasion), which must be certified and approved in line with workplace procedures and could include, but are not limited to, the following:
  - extending devices
  - tilt bucket
  - buckets
  - compaction wheel
  - ripper
  - plate compactor
  - rock breaker
  - auger



- broom
- mower/slasher
- forklift
- 4 in 1 bucket and free/rock grab
- parking and securing of equipment

In the course of the above work the candidate must also:

- locate and apply relevant documentation, policies and procedures
- select and wear personal protective equipment required for work activities
- carry out vehicle refuelling requirements and procedures where applicable
- apply safe work practices, identifying and reporting all potential hazards, risks and environmental issues
- apply problem solving and troubleshooting techniques when operating equipment
- monitor and manage equipment performance using indicators and alarms
- identify common equipment faults
- apply levelling techniques
- establish weight of load
- manage changes in the loads centre of gravity during transportation
- select and use the required tools and equipment
- work safely around other machines and personnel
- apply methods of changing machine attachments
- use a range of communication techniques and equipment essential to the safe completion of work activity, including hand, audible and other signals
- meet written and verbal reporting requirements and procedures associated with equipment operations
- organise work activities to meet all task requirements
- 

## Knowledge Evidence

The candidate must be able to demonstrate knowledge to complete the tasks outlined in the elements and performance criteria of this unit. This includes:

Key policies and procedures, legislation and established requirements for backhoe/loader operations, including those relating to:

- isolation requirements
- fires, accidents and emergencies
- work health and safety, including signs of operator fatigue and how it should be managed
- site isolation and traffic control responsibilities and authorities
- project quality requirements
- operational, maintenance and basic diagnostics
- personal protective equipment
- recyclable materials
- housekeeping activities

Key factors affecting work activities described in performance evidence above, including:

- equipment processes, technical capability and limitations
- drawings and sketches
- ground conditions
- materials characteristics, including density and viscosity

Key features associated with civil construction works, including:

- civil construction terminology
- basic principles of material technology and material compaction for civil works
- basic earthworks calculations
- civil construction activity sequences of road construction, earthworks and drainage

## Assessment Conditions

Mandatory conditions for assessment of this unit are stipulated below. The assessment must:

- include access to:
  - backhoe/loader
  - personal protective equipment
- be conducted in a safe environment; and,
- be assessed in context of this sector's work environment; and,
- be assessed in compliance with relevant legislation/regulation and using policies, procedures, processes and operational manuals directly related to the industry sector for which it is being assessed; and,
- confirm consistent performance can be applied in a range of relevant workplace circumstances

Where personal safety or environmental damage are limiting factors, assessment may occur in a simulated work environment\* provided it is realistic and sufficiently rigorous to cover all aspects of this sector's workplace performance, including environment, task skills, task management skills, contingency management skills and job role environment skills.

### Assessor requirements

Assessors must be able to clearly demonstrate current and relevant industry knowledge and experience to satisfy the mandatory competency standards as set out in the Standards for Registered Training Organisations (RTOs) 2015/AQTF mandatory requirements for assessors current at the time of assessment and any relevant licensing and certification requirements. This includes:

- vocational competencies at least to the level being delivered and assessed
- current industry skills directly relevant to the training and assessment being provided
- current knowledge and skills in vocational training and learning that informs their training and assessment
- formal relevant qualifications in training and assessment
- having knowledge of and/or experience using the latest techniques and processes
- possessing a high level of RII training product knowledge

- having an understanding and knowledge of legislations and regulations relevant to the industry and to employment and workplaces
- demonstrating the performance evidence, and knowledge evidence as outlined in this Unit of Competency, and
- the minimum years of current\*\* work experience after competency has been obtained as specified below in an industry sector relevant to the outcomes of the unit.

It is also acceptable for the appropriately qualified assessor to work with an industry expert to conduct assessment together and for the industry expert to be involved in the assessment judgement. The industry expert must hold the relevant vocational competencies and have current industry skills directly relevant to the training and assessment being provided and must work alongside a trainer and/or assessor to conduct the assessment. This means the industry subject matter expert should hold the unit being assessed (or an equivalent unit), and must also demonstrate skills and knowledge from the minimum years of current work experience after competency has been obtained as specified below, including time spent in roles related to the unit being assessed:

Industry sector	AQF indicator level***	Required assessor or industry subject matter expert experience
Drilling, Metalliferous Mining, Coal Mining, Extractive (Quarrying) and Civil Infrastructure	1	1 Year
	2	2 Years
Drilling, Coal Mining, Extractive (Quarrying), Metalliferous Mining and Civil Infrastructure	3-6	3 Years
Other sectors	Where this unit is being assessed outside of the resources and infrastructure sectors assessor and/or industry subject matter expert experience should be in-line with industry standards for the sector in which it is being assessed and where no industry standard is specified should comply with any relevant regulation.	

\*Guidance on simulated environments has been stipulated in the RII implementation guide located on VETNet.

\*\*Assessors can demonstrate current work experience through employment within industry in a role relevant to the outcomes of the unit; or, for external assessors this can be demonstrated through exposure to industry by conducting a minimum number of site assessments as determined by the relevant industry sector, across various locations.

\*\*\* While a Unit of Competency does not have an AQF level, where a unit is being delivered outside of a qualification the first numeric character in the unit code should be considered as the AQF indicator level for assessment purposes.

## Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=88a61002-9a21-4386-aaf8-69c76e675272>

## RIIRIS201D Conduct local risk control

### Modification History

Release	Comment
1	This unit replaces RIIRIS201B Conduct local risk control
2	Required frequency and volume of evidence amended in Performance evidence. Substantial amendments made in Assessment Conditions field, including: references to Industry Sectors, assessor and subject matter expert experience requirements, how assessment should be conducted and what it should confirm.

### Application

This unit describes a participant's skills and knowledge required to conduct local risk control in the Resources and Infrastructure Industries.

This unit is appropriate for those working in operational roles.

No licensing, legislative or certification requirements apply to this unit at the time of publication.

### Elements and Performance Criteria

1 Plan and prepare for risk control	1.1 Access, interpret and apply risk management documentation and ensure the work activity is compliant 1.2 Inspect work area conditions to identify potential hazards 1.3 Apply risk management procedures to deal with recognised hazards 1.4 Recognise the type and scope of unresolved hazards and their likely impact
2 Assess and identify unacceptable risk	2.1 Assess and determine consequence of an event 2.2 Consider and determine likelihood of the event 2.3 Identify criteria for the acceptability/unacceptability of the risk 2.4 Assess risk against criteria to identify if it warrants 'unacceptable risk' status and action 2.5 Effectively communicate and clarify the decision to others
3 Identify, assess and	3.1 Identify and consider all possible risk treatment options

implement risk treatments	<p>3.2 Identify options by preliminary analysis and consideration of options</p> <p>3.3 Analyse options, including resource requirements</p> <p>3.4 Select most appropriate and effective course of action</p> <p>3.5 Plan and prepare the course of action in detail and acquire/obtain required resources and approval</p> <p>3.6 Implement the approved risk treatment</p> <p>3.7 Review risk management processes</p>
4 Complete records and reports	<p>4.1 Effectively communicate accurate information to others on the course of action and implementation</p> <p>4.2 Complete written records and reports for hazards and actions from personal risk assessment</p>

## Foundation Skills

Foundation skills essential to performance are explicit in the performance criteria of this unit. Further information is available in the Resources and Infrastructure Industry Training Package Companion Volume.

## Unit Mapping Information

RIIRIS201B Conduct local risk control

## Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=88a61002-9a21-4386-aaf8-69c76e675272>

# Assessment Requirements for RIIRIS201D Conduct local risk control

## Modification History

Release	Comment
1	This unit replaces RIIRIS201B Conduct local risk control
2	Required frequency and volume of evidence amended in Performance evidence. Substantial amendments made in Assessment Conditions field, including: references to Industry Sectors, assessor and subject matter expert experience requirements, how assessment should be conducted and what it should confirm.

## Performance Evidence

Evidence is required to be collected that demonstrates a candidate's competency in this unit. Evidence must be relevant to the roles within this sector's work operations and satisfy all of the requirements of the performance criteria of this unit and include evidence that the candidate:

- locate and apply relevant documentation, policies and procedures
- works effectively with others to undertake and complete conducting of local risk control including:
  - communicating clearly and concisely with others to receive and clarify treatment information
  - communicating clearly and concisely the likelihood and consequence of an identified risk
- demonstrates completion of conducting local risk control that safely, effectively and efficiently meets all of the required outcomes on more than one (1) occasion including:
  - identifying 'unacceptable risk' using the acceptability/unacceptability criteria
  - working with others to determine risk controls
  - assessing and determining consequence and likelihood of potential risk
  - controlling risk by selecting and implementing most appropriate treatment
  - reporting written information about risk assessment and treatment implementation

## Knowledge Evidence

The candidate must demonstrate knowledge in conducting local risk control through:

- accessing, interpreting and applying the organisation and site requirements and procedures for:

- organisation risk management policy, procedure requirements
- conducting worksite risk management procedures
- conducting and maintaining worksite communication, reporting and recording procedures
- identifying and assessing hazards, risks, acceptability of risks and controls
- reading, preparing and using worksite safety systems information

## Assessment Conditions

- An assessor of this unit must satisfy the requirements of the NVR/AQTF or their successors; and Industry regulations for certification and licensing; and,
- this unit is best assessed in the context of this sector's work environment;
- where personal safety or environmental damage are limiting factors, assessment may occur in a simulated environment provided it is realistic and sufficiently rigorous to cover all aspects of this sector's workplace performance, including environment, task skills, task management skills, contingency management skills and job role environment skills; and,
- this unit must be assessed in compliance with relevant legislation/regulation and using policies, procedures, processes and operational manuals directly related to the industry sector for which it is being assessed; and,
- assessment may be conducted in conjunction with the assessment of other Units of Competency; and,
- assessment must confirm consistent performance can be applied in a range of relevant workplace circumstances; and,
- assessors must demonstrate the performance evidence, and knowledge evidence as outlined in this Unit of Competency, and through the minimum years of current\* work experience specified below in an Industry sector relevant to the outcomes of the unit; or,
- where the assessor does not meet experience requirements a co-assessment or partnership arrangement must exist between the qualified assessor and an Industry subject matter expert. The Industry subject matter expert should hold the unit being assessed (or an equivalent unit) and/or demonstrate equivalence of skills and knowledge at the unit level. An Industry technical expert must also demonstrate skills and knowledge from the minimum years of current work experience specified below in the Industry sector, including time spent in roles related to the unit being assessed; and,
- assessor and Industry subject matter expert requirements differ depending on the Australian Qualifications Framework Level (AQF) of the qualification being assessed and/or Industry Sector as follows:

Industry sector	AQF** Level	Required assessor or Industry subject matter expert experience
Drilling, Metalliferous Mining, Coal Mining, Extractive (Quarrying) and Civil Construction	1	1 Year
	2	2 Years
Drilling, Coal Mining and Extractive	3-6	3 Years



(Quarrying)		
Metalliferous Mining and Civil Construction	3-6	5 Years
Other sectors	Where this Unit is being assessed outside of the Resources and Infrastructure Sectors assessor and/or Industry subject matter expert experience should be in-line with industry standards for the sector in which it is being assessed and where no Industry standard is specified should comply with any relevant regulation.	

\*Assessors can demonstrate current work experience through employment within Industry in a role relevant to the outcomes of the Unit; or, for external assessors this can be demonstrated through exposure to Industry by conducting frequent site assessments across various locations.

\*\*Where a unit is being delivered outside of a Qualification the first numeric character in the Unit code should be considered to indicate the AQF level

## Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=88a61002-9a21-4386-aaf8-69c76e675272>

## RIIWHS202D Enter and work in confined spaces

### Modification History

Release	Comment
1	The unit replaces RIIOHS202A Enter and work in confined spaces.
2	Editorial corrections.
3	Amended Application field.
4	Required frequency and volume of evidence amended in Performance evidence. Substantial amendments made in Assessment Conditions field, including: references to Industry Sectors, assessor and subject matter expert experience requirements, how assessment should be conducted and what it should confirm.

### Application

This unit describes a participant's skills and knowledge required to enter and work in confined spaces in the Resources and Infrastructure Industries.

This unit is appropriate for those working in operational roles undertaking work in confined spaces.

Licensing, legislative, regulatory and certification requirements that apply to this unit can vary between states, territories, and Industry sectors. Relevant information must be sourced prior to application of the unit.

*Note: The terms Occupational Health and Safety (OHS) and Work Health and Safety (WHS) are equivalent and generally either can be used in the workplace. In jurisdictions where the National Model WHS Legislation has not been implemented RTOs are advised to contextualise the unit of competency by referring to the existing State/Territory OHS legislative requirements.*

### Elements and Performance Criteria

1 Plan and prepare for working in confined space	<p>1.1 Access, interpret and apply procedures for confined space entry and the environmental management plan and ensure the work activity is compliant</p> <p>1.2 Obtain, confirm, clarify and apply work instructions and agreed procedure</p> <p>1.3 Obtain, confirm, clarify and apply safety requirements</p>
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	<p>1.4 Obtain and confirm authorisation (entry permit) meets regulatory requirements</p> <p>1.5 Confirm the emergency response procedure is with the stand-by person and understood</p> <p>1.6 Identify, obtain and implement signage and barrier requirements</p> <p>1.7 Select tools and equipment for the tasks, check for serviceability and rectify or report any faults</p> <p>1.8 Identify, confirm and apply the environmental protection requirements</p> <p>1.9 Position rescue equipment by the entry permit</p>
2 Work in confined space	<p>2.1 Gain access to confined space</p> <p>2.2 Ensure that the atmosphere is tested and monitored for harmful elements</p> <p>2.3 Correctly apply tagging and lock-out procedures</p> <p>2.4 Enter the confined space correctly</p> <p>2.5 Maintain ongoing communication with the stand-by person</p> <p>2.6 Comply with entry permit requirements</p> <p>2.7 Monitor and adhere to allocated entry time</p>
3 Exit confined space	<p>3.1 Exit confined space correctly</p> <p>3.2 Recover tools, equipment and materials</p> <p>3.3 Conduct inspection of the confined space</p> <p>3.4 Secure access to the confined space</p> <p>3.5 Remove tagging and lock-out</p> <p>3.6 Accurately complete confined space entry permit</p>
4 Clean up	<p>4.1 Clear work area and dispose of or recycle materials</p> <p>4.2 Clean, check, maintain and store tools and equipment</p> <p>4.3 Remove, clean and store barriers and signs</p>

## Foundation Skills

Foundation skills essential to performance are explicit in the performance criteria of this unit. Further information is available in the Resources and Infrastructure Industry Training Package Companion Volume.

## **Unit Mapping Information**

RIIOHS202A Entering and working in confined spaces

## **Links**

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=88a61002-9a21-4386-aaf8-69c76e675272>

# Assessment Requirements for RIIWHS202D Enter and work in confined spaces

## Modification History

Release	Comment
1	The unit replaces RIIOHS202A Enter and work in confined spaces.
2	Editorial corrections.
3	Amended Application field.
4	Required frequency and volume of evidence amended in Performance evidence. Substantial amendments made in Assessment Conditions field, including: references to Industry Sectors, assessor and subject matter expert experience requirements, how assessment should be conducted and what it should confirm.

## Performance Evidence

Evidence is required to be collected that demonstrates a candidate's competency in this unit. Evidence must be relevant to the roles within this sector's work operations and satisfy all of the requirements of the performance criteria of this unit and include evidence that the candidate:

- locates and applies relevant documentation, policies and procedures
- demonstrates completion of entering and working in confined spaces that safely, effectively and efficiently meets all of the required outcomes on more than one (1) occasion including:
  - obtain appropriate entry permit and instructions for performing work in confined space
  - interpreting and applying safe work method statements
  - apply tagging and lock out
  - selecting, wearing and caring for personal protective equipment applicable to all tasks and environment identified
  - entering the confined space
  - using atmospheric monitoring devices prior to entering the confined space
  - working in the confined space
  - using atmospheric monitoring devices during confined space activity
  - applying safe materials handling methods
  - exiting the confined space
  - remove tagging and lock out

## Knowledge Evidence

The candidate must demonstrate knowledge of enter and work in confined spaces through:

- identifying areas that constitute confined spaces
- complying with site and equipment safety requirements
- complying with the entry and exit procedures, risks and regulations
- types of air contaminants and toxic gases
- identifying the limitations of breathing apparatus
- identifying equipment types, characteristics, technical capabilities and limitations
- complying with site isolation and site control responsibilities and authorities
- locations of safety data sheets (SDS) information and application
- using confined space and Industry terminology

## Assessment Conditions

- An assessor of this unit must satisfy the requirements of the NVR/AQTF or their successors; and Industry regulations for certification and licensing; and,
- this unit is best assessed in the context of this sector's work environment;
- where personal safety or environmental damage are limiting factors, assessment may occur in a simulated environment provided it is realistic and sufficiently rigorous to cover all aspects of this sector's workplace performance, including environment, task skills, task management skills, contingency management skills and job role environment skills; and,
- this unit must be assessed in compliance with relevant legislation/regulation and using policies, procedures, processes and operational manuals directly related to the industry sector for which it is being assessed; and,
- assessment may be conducted in conjunction with the assessment of other Units of Competency; and,
- assessment must confirm consistent performance can be applied in a range of relevant workplace circumstances; and,
- assessors must demonstrate the performance evidence, and knowledge evidence as outlined in this Unit of Competency, and through the minimum years of current\* work experience specified below in an Industry sector relevant to the outcomes of the unit; or,
- where the assessor does not meet experience requirements a co-assessment or partnership arrangement must exist between the qualified assessor and an Industry subject matter expert. The Industry subject matter expert should hold the unit being assessed (or an equivalent unit) and/or demonstrate equivalence of skills and knowledge at the unit level. An Industry technical expert must also demonstrate skills and knowledge from the minimum years of current work experience specified below in the Industry sector, including time spent in roles related to the unit being assessed; and,
- assessor and Industry subject matter expert requirements differ depending on the Australian Qualifications Framework Level (AQF) of the qualification being assessed and/or Industry Sector as follows:

Industry sector	AQF** Level	Required assessor or Industry subject matter expert experience
Drilling, Metalliferous Mining, Coal Mining, Extractive (Quarrying) and Civil Construction	1	1 Year
	2	2 Years
Drilling, Coal Mining and Extractive (Quarrying)	3-6	3 Years
Metalliferous Mining and Civil Construction	3-6	5 Years
Other sectors	Where this Unit is being assessed outside of the Resources and Infrastructure Sectors assessor and/or Industry subject matter expert experience should be in-line with industry standards for the sector in which it is being assessed and where no Industry standard is specified should comply with any relevant regulation.	

\*Assessors can demonstrate current work experience through employment within Industry in a role relevant to the outcomes of the Unit; or, for external assessors this can be demonstrated through exposure to Industry by conducting frequent site assessments across various locations.

\*\*Where a unit is being delivered outside of a Qualification the first numeric character in the Unit code should be considered to indicate the AQF level

## Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=88a61002-9a21-4386-aaf8-69c76e675272>

## SIRCDIS006 Maintain dispensary stock

### Modification History

Not applicable.

### Application

This unit describes the performance outcomes, skills and knowledge required to assist pharmacists maintain all types of dispensary stock including scheduled medicines, perishable goods and raw materials for compounding. It requires the ability to order, receive and store stock, maintain its quality and administer stock control records.

This unit applies to senior dispensary assistants working in community pharmacies. When maintaining dispensary stock, they work under the direct supervision of a pharmacist and their role is limited to those functions that do not require them to exercise professional pharmaceutical judgement or discretion.

No occupational licensing, certification or specific legislative requirements apply to this unit at the time of publication.

### Pre-requisite Unit

Nil

### Competency Field

Dispensary

### Unit Sector

Community Pharmacy

### Elements and Performance Criteria

#### ELEMENTS

Elements describe the essential outcomes.

1. Order dispensary stock.

#### PERFORMANCE CRITERIA

Performance criteria describe the performance needed to demonstrate achievement of the element.

- 1.1. Follow organisational procedures for stock maintenance activities.
- 1.2. Identify dispensary stock maintenance requirements.



- 1.3.Refer to and interpret preferred supplier arrangements and confirm stock availability, cost and delivery times.
  - 1.4.Seek direction or clarifications from pharmacist and obtain pharmacist approval for stock orders.
  - 1.5.Place clear, unambiguous documented orders for dispensary items within required timelines.
  - 1.6.Complete and keep accurate purchase and costing records.
2. Take delivery of dispensary stock.
  - 2.1.Check incoming dispensary stock against orders and delivery documentation, and identify, record and report discrepancies.
  - 2.2.Inspect items for damage, quality and use by dates and record and report findings.
  - 2.3.Check cold chain items have been maintained at optimum temperature and report unacceptable quality to pharmacist.
  - 2.4.Record details of incoming stock.
  - 2.5.Alert pharmacist to delivery of controlled drugs.
3. Store dispensary stock.
  - 3.1.Use safe manual handling techniques when moving and storing stock to avoid injury.
  - 3.2.Identify dispensary product layout and store stock promptly in appropriate storage location.
  - 3.3.Choose and maintain appropriate environmental conditions for storage of perishable items.
  - 3.4.Ensure special dispensary items are stored according to security requirements.
4. Maintain dispensary stock.
  - 4.1.Check and adjust environmental conditions of storage regularly to maintain perishable dispensary stock at optimum quality.
  - 4.2.Check quality of other stock regularly and make adjustments to ensure stock protection.
  - 4.3.Rotate stock for maximum use and minimum wastage.
  - 4.4.Assist pharmacist to manage-out stock of branded medicines when introducing generic equivalents.
  - 4.5.Monitor, calculate and maintain working stock levels in consultation with pharmacist and with consideration of Pharmaceutical Benefits Scheme (PBS) price disclosure system.
  - 4.6.Organise and participate in stocktakes at appropriate intervals.
  - 4.7.Produce accurate stocktake reports within designated timelines and maintain accurate stock control records.
  - 4.8.Investigate, resolve and report stock losses and discrepancies.
  - 4.9.Use stock control system to maintain stock control records.
5. Dispose of dispensary stock waste.
  - 5.1.Sort waste and obtain pharmacist approval to reject out-of-date, damaged and excess dispensary stock.
  - 5.2.Dispose of waste under pharmacist supervision, according to environmental and special waste disposal requirements.

5.3.Update dispensary stock records following disposal.

## **Foundation Skills**

Foundation skills essential to performance are explicit in the performance criteria of this unit of competency.

## **Unit Mapping Information**

No equivalent unit.

## **Links**

Companion Volume implementation guides are found in VETNet -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=ca051b1b-5101-4ec2-ac1c-49699303188d>

# Assessment Requirements for SIRCDIS006 Maintain dispensary stock

## Modification History

Not applicable.

## Performance Evidence

Evidence of the ability to complete tasks outlined in elements and performance criteria of this unit in the context of the job role, and:

- order and take delivery of each of these types of dispensary stock for three supply periods:
  - Prescription Only Medicine (S4)
  - branded medicines
  - bio-equivalent generic medicines
  - drops
  - insulin
  - liquids
  - ointments and creams
  - pessaries
  - suppositories
  - tablets and capsules
  - vaccines
- maintain dispensary stock in optimum condition across three supply periods
- safely dispose of the following types of dispensary waste:
  - hazardous substances
  - expired stock
  - damaged stock
  - medicines returned by customers
- participate in a stocktake
- generate each of the following stock reports over the above supply periods:
  - stock level reports
  - stock performance reports
  - stock loss reports
  - stocktake reports.

## Knowledge Evidence

Demonstrated knowledge required to complete the tasks outlined in elements and performance criteria of this unit:

- role boundaries and responsibilities of dispensary assistants and pharmacists for maintaining dispensary stock
- organisational procedures for maintaining dispensary stock:
  - ordering dispensary stock
  - recording incoming stock
  - recording and reporting discrepancies and quality deficiencies
  - recording stock levels
  - monitoring and maintaining quality of stock
  - maintaining security of dispensary stock
  - work health and safety for stock control
  - dispensary stocktakes
  - waste handling, sorting and disposal
- organisational stock reorder cycles
- safe manual handling techniques for moving and storing dispensary stock; those for bending, lifting and carrying heavy items
- principles of stock control:
  - rotation and replenishment
  - product life cycle and maximising the use of all stock
  - managing out stock of branded medicines when introducing generic equivalents
  - checking for slow moving items
  - financial implications of stock level control
- sources of product and supplier information
- sources of information on negotiated cost of supply, contractual arrangements and preferred supplier arrangements
- Pharmaceutical Benefits Scheme (PBS) price disclosure system, and how this impacts on stock management
  - when scheduled reduction days occur and how this affects the amount of stock held and its value
  - types of medicines subject to price disclosure
- purpose of batch numbering and expiry dates on pharmaceutical products
- dispensary layout and storage requirements for dispensary items:
  - alphabetical arrangement of medications
  - sequential positioning of medications along shelves
  - controlled substances under specific secured storage conditions
  - grouping of Pharmacist Only Medicines (S3)
  - hazardous substances
  - refrigeration
- optimum environmental storage conditions, including temperature, light and humidity controls, for perishable and cold chain dispensary items
- reasons for stock loss and damage and methods to control these
- disposal methods for dispensary waste:

- returning to supplier
- using a disposal service
- environmentally sound disposal methods for hazardous waste:
  - pharmaceutical raw materials
  - cleaning products
  - pharmaceutical sharps
- formats for, use and contents of:
  - order and delivery documentation
  - stock recording documentation
  - Electronic Data Interchange (EDI) forms
  - stock level reports
  - stock performance reports
  - stock loss reports
  - stocktake reports
- features and functions of dispensary stock control software.

## Assessment Conditions

Skills must be demonstrated in a pharmacy with a designated operational dispensary area and stock control and storage facilities for perishable and non-perishable dispensary stock. This must be in an industry workplace, which meets Pharmacy Board of Australia and relevant industry standards for dispensary operations.

Assessment must ensure use of:

- information technology hardware and software
- dispensary stock control software currently used by the community pharmacy industry
- refrigerator or freezer dedicated to pharmaceuticals
- secured storage locations for dispensary items requiring secured storage conditions
- pharmacy shelving, shelf facings and signage for dispensary medicines
- a diverse commercial product range of pharmacy medicines:
  - Prescription Only Medicine (S4)
  - branded medicines
  - bio-equivalent generic medicines
  - drops
  - insulin
  - liquids
  - ointments and creams
  - pessaries
  - suppositories
  - tablets and capsules

- vaccines
- waste disposal bags and containers for pharmaceutical waste including sharps containers
- template dispensary stock control documents:
  - order and delivery documentation:
    - purchase orders
    - standing orders
    - packing slips
  - stock recording documentation
  - Electronic Data Interchange (EDI) forms
- template dispensary stock control reports:
  - stock level reports
  - stock performance reports
  - stock loss reports
  - stocktake reports
- organisational procedures for maintaining dispensary stock
- pharmacists with whom the individual can interact
- assessment activities that allow the individual to work with commercial speed, timing and productivity to complete stock control activities within nominated deadlines.

Assessors must satisfy the Standards for Registered Training Organisation's requirements for assessors, and:

- have worked in the pharmacy sector for at least two years.

## Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=ca051b1b-5101-4ec2-ac1c-49699303188d>

# **SIRRFSA001 Handle food safely in a retail environment**

## **Modification History**

Not applicable.

## **Application**

This unit describes the performance outcomes, skills and knowledge required to handle food safely in the retail environment following organisational food safety procedures and relevant legislation and standard procedures.

It applies to individuals working in roles that involve the handling of food. They operate with some independence under general supervision and guidance from others, and within established organisational policies and procedures and relevant legislative requirements.

Food handlers must comply with the requirements contained within the Australia New Zealand Food Standards (ANZFS) Code (the Code).

The legislative requirement for a business to comply with the national standard for food safety practices, along with training and certification requirements, differ between State and Territory Governments. Those developing training to support this unit must consult the relevant state or territory food safety authority to determine any accreditation arrangements for courses, trainers and assessors.

In some states and territories businesses are required to designate a food safety supervisor who is required to be certified as competent in this unit through a registered training organisation.

## **Pre-requisite Unit**

Nil

## **Competency Field**

Food Safety

## **Unit Sector**

Retail

## Elements and Performance Criteria

### ELEMENTS

### PERFORMANCE CRITERIA

Elements describe the essential outcomes.

Performance criteria describe the performance needed to demonstrate achievement of the element.

- |   |   |
|---|---|
| 1. Follow food safety program.          | 1.1. Access information from food safety program to ensure food handling is completed safely.<br>1.2. Monitor food safety according to organisational processes and document as required.<br>1.3. Control identified food safety hazards relevant to operations.<br>1.4. Take corrective action within scope of job responsibility when non-compliance and food safety hazards are identified and report to relevant personnel as required.<br>1.5. Record food safety information, including equipment breakdowns, according to food safety program.   |
| 2. Store and handle food safely.        | 2.1. Receive and transport food supplies to appropriate storage areas promptly, safely and without damage.<br>2.2. Store and display food in environmental conditions that protect against contamination and maximise freshness, quality and appearance.<br>2.3. Store food at controlled temperatures and ensure that food items remain at correct temperature during storage and display.<br>2.4. Use cooling and heating processes that support microbiological safety of food.<br>2.5. Identify and take action to remove potentially unsafe food safety processes or situations.<br>2.6. Change or sanitise food-handling implements between handling different food products to avoid cross-contamination.<br>2.7. Mark and keep separate from other foodstuffs any food identified for disposal until disposal is complete.<br>2.8. Dispose of food promptly to avoid cross-contamination. |
| 3. Maintain personal hygiene standards. | 3.1. Follow hand washing procedures to minimise risk of contamination.<br>3.2. Wear appropriate clothing and footwear and maintain uniform cleanliness standards.<br>3.3. Secure hair and cover all open wounds to minimise risk to food safety.<br>3.4. Report any health issues or illness to appropriate personnel.  |
| 4. Maintain equipment and work area.    | 4.1. Clean and sanitise equipment, surfaces and utensils following organisational procedures.<br>4.2. Identify and report cleaning, sanitising and maintenance requirements.  |



- 4.3. Dispose of or report chipped, broken or cracked food handling utensils.
- 4.4. Take measures within scope of responsibility to ensure food-handling areas are free from insects, pests and vermin and report incidents of animal or pest infestation.

## Foundation Skills

Foundation skills essential to performance in this unit, but not explicit in the performance criteria are listed here, along with a brief context statement.

SKILLS	DESCRIPTION
Reading skills to:	<ul style="list-style-type: none"><li>interpret plain English documents that outline organisational policies and procedures for food safety and hygiene and sanitation practices.</li></ul>
Numeracy skills to:	<ul style="list-style-type: none"><li>calibrate and use a temperature probe and calculate timing appropriate to the preparation of food products</li><li>follow simple dilution requirements for chemicals and cleaning products, and calculate ratios in order to make them up.</li></ul>

## Unit Mapping Information

No equivalent unit.

## Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=ca051b1b-5101-4ec2-ac1c-49699303188d>

# Assessment Requirements for SIRRFS001 Handle food safely in a retail environment

## Modification History

Not applicable.

## Performance Evidence

Evidence of the ability to complete tasks outlined in elements and performance criteria of this unit in the context of the job role, and:

- demonstrate safe handling of food, following organisational policies and procedures and food safety program during three work shifts, by:
  - using appropriate control measures to control food hazards at each of the following points:
    - receiving
    - storing
    - preparing
    - displaying
    - disposing
  - completing food safety documentation, recording and reporting
  - maintaining personal hygiene standards
  - maintaining food work area and equipment.

## Knowledge Evidence

Demonstrated knowledge required to complete the tasks outlined in elements and performance criteria of this unit:

- key aspects of Commonwealth, state or territory and local food safety compliance requirements as relevant to job role:
  - personal hygiene
  - contents of national codes and standards that underpin regulatory requirements
  - reasons for food safety programs and what they must contain
  - local government food safety regulations and inspection regimes
  - consequences of failure to observe food safety policies and procedures
  - meaning of contaminant, contamination and potentially hazardous foods as defined by the Australia New Zealand Food Standards (ANZFS) Code (the Code)
- food handling and hygiene principles:
  - organisational food safety program, its purpose and implications for own work
  - own roles and responsibilities, and those of food safety personnel for food handling requirements from raw material to finished product

- techniques for minimising contamination and spoilage
- common sources and types of contamination and food safety hazards, including:
  - conditions conducive to microbial growth
  - known allergens associated with food handling and processing
- common types of physical, chemical and microbiological agents that can contaminate food
- conditions that can cause physical, chemical and microbiological contamination
- correct storage of food, including hot, cold, raw and cooked, and appropriate control measures
- causes of deterioration of food, contamination, cross-contamination
- procedures for identifying and reporting potential or actual sources of contamination
- food handling implements
- need for change of implements between products
- correct storage medium for serving implements
- shelf life of food products
- control measures for food hazards
- procedures for recording failures in the food safety program, including equipment breakdowns
- temperature control and the temperature danger zone
- correct temperature of storage and display units and how to maintain:
  - load limits and effects of overloading
  - effects of breaking temperature chain
  - effects of blocking coils and air vents
- food storage requirements for:
  - refrigeration
  - freezers
  - dry stores
- cleaning work areas:
  - cleaning procedures and schedules for work areas and equipment (internal and external)
  - purpose and importance of cleaning and sanitation procedures
  - safe use and storage of cleaning tools, equipment and chemicals, and insecticides and pesticides
  - routine maintenance for work areas and equipment
  - waste collection and disposal, recycling and handling procedures
  - pest control procedures
- food handling practices for:
  - food segregation
  - food packaging for storage
  - labelling of food
  - stock rotation

- optimal maintenance of storage areas:
  - cleanliness and sanitation
  - ventilation
  - lighting
  - required temperature
  - free from vermin or infestation
  - free from defects
- correct disposal of damaged or spoiled supplies
- known allergens associated with food ingredients, food processing and handling
- application of workplace documentation for food handling:
  - organisational food safety program
  - organisational policies and procedures on hygiene and sanitation practices
  - food safety incident reports
  - safety data sheets for cleaning and sterilising products.

## Assessment Conditions

Skills must be demonstrated in a retail environment. This can be:

- an industry workplace
- a simulated industry environment.

Assessment must ensure access to:

- relevant documentation:
  - current plain English regulatory documents distributed by government regulators outlining key aspects Commonwealth, state or territory and local food safety compliance requirements as relevant to job role
  - organisational food safety program
  - organisational policies and procedures for food safety and hygiene and sanitation practices
  - hazard control measures
  - food safety incident report
  - cleaning and maintenance schedules and safety data sheets for cleaning and sterilising products
- personal protective clothing and equipment:
  - aprons and outerwear
  - food handling gloves
  - correct head and footwear
- cleaning and sanitation materials and chemicals
- a range a food products
- food handling implements

- food storage and display equipment.

Assessors must satisfy the Standards for Registered Training Organisations' requirements for assessors.

## Links

Companion Volume implementation guides are found in VETNet -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=ca051b1b-5101-4ec2-ac1c-49699303188d>

## SIRRINV002 Control stock

### Modification History

Not applicable.

### Application

This unit describes the performance outcomes, skills and knowledge required to process stock orders, maintain stock levels, minimise stock losses, manage stocktakes and maintain all documents that relate to the administration of any type of stock.

This unit applies to individuals responsible for stock control. They work within organisational systems and procedures, but make decisions about stock administration and may have responsibility for others.

No occupational licensing, certification or specific legislative requirements apply to this unit at the time of publication.

### Pre-requisite Unit

Nil

### Competency Field

Inventory

### Unit Sector

Retail

### Elements and Performance Criteria

#### ELEMENTS

Elements describe the essential outcomes.

1. Monitor stock receipt and dispatch.

#### PERFORMANCE CRITERIA

Performance criteria describe the performance needed to demonstrate achievement of the element.

- 1.1. Implement organisational policies and procedures for receipt, dispatch and secure storage of stock.
- 1.2. Allocate tasks and monitor staff to ensure organisational procedures are followed, and documentation is completed

- correctly.
- 1.3. Confirm that stock quantity and quality inspections on receipt meet organisational standards.
  - 1.4. Act on variations to quantity and quality of delivered stock.
  - 1.5. Supervise safe stock handling and storage.
2. Maintain stock records.
    - 2.1. Monitor stock and maintain stock at required levels.
    - 2.2. Maintain, monitor and adjust stock reorder cycles as required.
    - 2.3. Provide clear information to team members about individual stock recording responsibilities.
    - 2.4. Maintain stock storage and movement records.
    - 2.5. Record and report stock discrepancies.
    - 2.6. Monitor stock performance and identify and report fast and slow-selling items.
3. Process and follow up orders.
    - 3.1. Process and raise stock orders according to organisational procedures.
    - 3.2. Monitor delivery of stock to ensure agreed deadlines and inventory requirements are met.
    - 3.3. Liaise with suppliers to ensure continuity of supply.
    - 3.4. Resolve routine supply problems or refer to appropriate personnel for action.
    - 3.5. Distribute stock within the organisation according to required allocations.
    - 3.6. Handle routine supply problems or refer to management as required by store policy.
4. Minimise stock losses.
    - 4.1. Regularly check storage of stock and ensure its protection.
    - 4.2. Identify, record and report stock losses.
    - 4.3. Identify avoidable losses and establish reasons for them.
    - 4.4. Recommend solutions and implement procedures to prevent future losses.
5. Coordinate stocktake or cyclical count.
    - 5.1. Explain procedures for stocktake and cyclical counts to team members.
    - 5.2. Allocate stocktaking tasks to individual team members ensuring effective use of staff resources to complete task.
    - 5.3. Provide team members with clear directions for performance of each task.
    - 5.4. Produce accurate reports for management on stocktake data, including discrepancies.

## Foundation Skills

Foundation skills essential to performance in this unit, but not explicit in the performance criteria are listed here, along with a brief context statement.

SKILLS	DESCRIPTION
Reading skills to:	<ul style="list-style-type: none"><li>interpret supplier purchasing agreements, purchase orders, records of incoming stock and organisational policies and procedures for stock control.</li></ul>
Numeracy skills to:	<ul style="list-style-type: none"><li>calculate:<ul style="list-style-type: none"><li>supplier costs and complex order costs</li><li>complex details of stock on hand and stock losses and produce complex numerically-based reports</li></ul></li><li>reconcile incoming stock and invoices against purchase orders.</li></ul>
Technology skills to:	<ul style="list-style-type: none"><li>use business technology for inventory management.</li></ul>

## Unit Mapping Information

No equivalent unit.

## Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=ca051b1b-5101-4ec2-ac1c-49699303188d>



## Assessment Requirements for SIRRINV002 Control stock

### Modification History

Not applicable.

### Performance Evidence

Evidence of the ability to complete tasks outlined in elements and performance criteria of this unit in the context of the job role, and:

- maintain and order stock across one stock cycle according to organisational procedures using all of the following stock processes:
  - receipt
  - dispatch
  - ordering
  - stock level monitoring
  - records maintenance
- produce three different stock control reports
- organise and coordinate one stocktake or cyclical count
- provide clear and correct information to team members involved in stock control processes.

### Knowledge Evidence

Demonstrated knowledge required to complete the tasks outlined in elements and performance criteria of this unit:

- organisational policies and procedures for:
  - receipt and dispatch of goods, including inspection for quantity and quality
  - stock ordering and reordering
  - stock replenishment
  - stock rotation
  - reporting of stock discrepancies, damage and loss
  - safe transport, handling and storage of goods
  - stock control
  - stocktaking and cyclical counts
  - pricing, labelling and packaging
  - stock security
- key aspects of legislation and codes of practice relevant to stock control:
  - Australian Consumer Law
  - Work Health and Safety (WHS)

- manual handling
- licensing for mechanical movement of stock
- principles of stock control:
  - rotation and replenishment
  - product life cycle
- impact of business planning and sales forecasts on stock control
- types of stock control systems used in the sector
- reasons for stock loss and damage and methods to control these and protect stock.

## Assessment Conditions

Skills must be demonstrated in a retail environment. This can be:

- an industry workplace
- a simulated industry environment.

Assessment must ensure access to:

- current plain English regulatory documents distributed by government regulators outlining key aspects of legislation and codes of practice relevant to stock control as listed in Knowledge Evidence
- a computerised stock control system
- stock for use in stock control activities
- organisational policies and procedures for stock control
- team members; these can be:
  - individuals in an industry workplace, or
  - individuals who participate in role plays or simulated activities, set up for the purpose of assessment, in a simulated industry environment.

Assessors must satisfy the Standards for Registered Training Organisations' requirements for assessors.

## Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=ca051b1b-5101-4ec2-ac1c-49699303188d>

# SIRRMER001 Produce visual merchandise displays

## Modification History

Not applicable.

## Application

This unit describes the performance outcomes, skills and knowledge required to display retail merchandise. It requires the ability to prepare, produce and maintain merchandise displays in accordance with visual merchandising requirements.

This unit applies to all businesses that sell retail merchandise. It applies to frontline personnel who have limited autonomy and work under close supervision and guidance of others in frontline operational roles. However; in smaller businesses, senior personnel might also undertake this function.

No occupational licensing, certification or specific legislative requirements apply to this unit at the time of publication.

## Pre-requisite Unit

Nil

## Competency Field

Merchandising

## Unit Sector

Retail

## Elements and Performance Criteria

### ELEMENTS

Elements describe the essential outcomes.

1. Prepare to produce visual merchandise display.

### PERFORMANCE CRITERIA

Performance criteria describe the performance needed to demonstrate achievement of the element.

- 1.1.Review visual merchandising display guidelines, and seek clarification as required.
- 1.2.Obtain merchandise, materials and equipment required for

- the display.
- 1.3. Prepare product labels and price tickets from in-house documents and according to organisational requirements.
  - 1.4. Unpack merchandise according to manufacturer instructions.
2. Display merchandise.
- 2.1. Produce display following visual merchandising display guidelines.
  - 2.2. Ensure merchandise is displayed according to manufacturer instructions where specific requirements for display and storage exist.
  - 2.3. Display merchandise labels and price tickets according to organisational requirements.
  - 2.4. Handle and move stock and equipment according to safe manual handling guidelines to prevent injury to self.
  - 2.5. Promptly return excess stock to storage area, and store according to organisational requirements.
  - 2.6. Check and ensure area around the display remains clear of debris.
3. Maintain display.
- 3.1. Review displays against visual merchandising display guidelines, and refine as required.
  - 3.2. Maintain clear and correct product and pricing information for merchandise.
  - 3.3. Identify damaged or out of date stock, and remove from display as required.
  - 3.4. Rotate and replenish merchandise to maintain optimum stock levels.
  - 3.5. Monitor the display regularly to maintain appearance and cleanliness of display and display area.

## Foundation Skills

Foundation skills essential to performance in this unit, but not explicit in the performance criteria are listed here, along with a brief context statement.

- |                                    |  |
|------------------------------------|--|
| Reading skills to:                 | <ul style="list-style-type: none"><li>• interpret plain English documents that outline organisational policies and procedures related to display of merchandise.</li></ul> |
| Numeracy skills to:                | <ul style="list-style-type: none"><li>• estimate dimensions of display areas and appropriate size of displays from display documentation.</li></ul>                        |
| Planning and organising skills to: | <ul style="list-style-type: none"><li>• prepare for display and complete display activities in a logical and time-efficient sequence.</li></ul>                            |
| Technology skills to:              | <ul style="list-style-type: none"><li>• prepare product labels and price tickets.</li></ul>  |

## Unit Mapping Information

No equivalent unit.

## Links

Companion Volume implementation guides are found in VETNet -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=ca051b1b-5101-4ec2-ac1c-49699303188d>

# Assessment Requirements for SIRRMER001 Produce visual merchandise displays

## Modification History

Not applicable.

## Performance Evidence

Evidence of the ability to complete tasks outlined in elements and performance criteria of this unit in the context of the job role, and:

- follow merchandising display guidelines and organisational procedures to prepare and produce three merchandise displays, from the following list, of varying sizes and complexities:
  - an existing merchandise range
  - a new merchandise range
  - a seasonal merchandise range
  - a promotional event
  - discounted merchandise
- maintain each of the above displays and display area, adequate stock level and appearance of display.

## Knowledge Evidence

Demonstrated knowledge required to complete the tasks outlined in elements and performance criteria of this unit:

- basic principles of visual merchandising as they relate to producing retail visual merchandise displays
- visual merchandise display guidelines and how they are used in creating a retail displays
- organisational procedures for:
  - correct manual handling techniques for protection of self and merchandise
  - correct storage of merchandise and equipment
  - damaged or out of date stock
  - maintenance of display areas
  - merchandise rotation and replenishment
  - product labelling and pricing
  - unpacking merchandise.

## Assessment Conditions

Skills must be demonstrated in a retail environment. This can be:

- an industry workplace
- a simulated industry environment.

Assessment must ensure access to:

- a range of retail merchandise
- display areas
- retail display equipment and props
- product labels and price tickets
- ticketing and pricing equipment
- organisational visual merchandise display guidelines
- organisational procedures for:
  - manual handling techniques for protection of self and merchandise
  - storage of merchandise and equipment
  - damaged or out of date stock
  - maintenance of display areas
  - merchandise rotation and replenishment
  - product labelling and pricing
  - unpacking merchandise
- assessment activities that allow the individual to:
  - work within commercial speed, timing and productivity
  - manage tasks and contingencies in the context of the job role.

Assessors must satisfy the Standards for Registered Training Organisations' requirements for assessors.

## Links

Companion Volume implementation guides are found in VETNet -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=ca051b1b-5101-4ec2-ac1c-49699303188d>

## SIRRMER002 Merchandise food products

### Modification History

Not applicable.

### Application

This unit describes the performance outcomes, skills and knowledge required to prepare and maintain the display of food products.

It applies to individuals working in frontline operational roles in a diverse range of retail industry sectors and business contexts that sell food products. They operate with some independence under general supervision and guidance from others, and within established organisational policies and procedures.

No occupational licensing, certification or specific legislative requirements apply to this unit at the time of publication.

### Pre-requisite Unit

Nil

### Competency Field

Merchandising

### Unit Sector

Retail

### Elements and Performance Criteria

#### ELEMENTS

Elements describe the essential outcomes.

1. Prepare to produce food display.

#### PERFORMANCE CRITERIA

Performance criteria describe the performance needed to demonstrate achievement of the element.

- 1.1. Review organisational food display guidelines for display of food products, and seek clarification as required.
- 1.2. Clean and sanitise food display equipment, and check for defects including irregularities in temperature as required.



- 1.3. Use personal protective equipment and correct equipment for handling food products as required.
  - 1.4. Follow manufacturer instructions to ensure correct handling and display of food.
  - 1.5. Follow food safety requirements to ensure food safety at all times of handling and display.
  - 1.6. Unpack food and check it is fit for purchase according to organisational policies and procedures.
  - 1.7. Prepare product labels and price tickets for food display according to organisational policies and procedures.
  - 1.8. Wrap, package or plate food items as required.
2. Display food products.
  - 2.1. Produce food display following organisational display guidelines for the display of food products.
  - 2.2. Identify and use correct handling and display techniques according to food characteristics and organisational policies and procedures.
  - 2.3. Ensure correct pricing and labelling of food displays.
  - 2.4. Promptly return excess stock to storage area, and store in accordance with organisational policies and procedures.
3. Maintain food display.
  - 3.1. Maintain cleanliness of display areas ensuring products are displayed neatly and excess packaging is removed.
  - 3.2. Maintain optimum stock levels and replenish stock as required.
  - 3.3. Identify damaged, deteriorated, spoiled or out of date food and reset or remove as required.
  - 3.4. Monitor correct temperatures for food display as required and report temperature irregularities to appropriate personnel without delay.

## Foundation Skills

Foundation skills essential to performance in this unit, but not explicit in the performance criteria are listed here, along with a brief context statement.

SKILLS	DESCRIPTION
Reading skills to:	<ul style="list-style-type: none"><li>interpret plain English documents that outline organisational procedures relevant to merchandising food.</li></ul>
Numeracy skills to:	<ul style="list-style-type: none"><li>interpret temperature readings against requirements for food display.</li></ul>

## Unit Mapping Information

No equivalent unit.

## Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=ca051b1b-5101-4ec2-ac1c-49699303188d>

# Assessment Requirements for SIRRMER002 Merchandise food products

## Modification History

Not applicable.

## Performance Evidence

Evidence of the ability to complete tasks outlined in elements and performance criteria of this unit in the context of the job role, and:

- follow organisational food display guidelines to prepare and produce four different food displays of varying sizes and complexities
- prepare and display two of the following food types for the above four displays:
  - fresh food produce
  - baked food items
  - general grocery items
  - food items requiring packaging
  - food items requiring specific temperature control.

## Knowledge Evidence

Demonstrated knowledge required to complete the tasks outlined in elements and performance criteria of this unit:

- organisational policies and procedures for:
  - food safety
  - hygiene and sanitation
  - food display labelling and pricing
  - correct storage of stock
  - location of display areas
  - principles of display
  - availability and use of display materials
  - stock rotation
  - stock replenishment
  - damaged and out of date stock
  - scheduling, building and rotating displays
  - correct manual handling techniques for protection of self and merchandise
  - maintenance and cleaning of equipment and working areas
- food safety monitoring:
  - storing food in appropriate timeframes

- monitoring and recording food temperatures
- monitoring and recording temperature of storage equipment
- visually examining food for quality review
- food safety requirements as specific to food products displayed
- food product characteristics and required preparation and handling
- techniques for creating visually appealing food displays that attract customers and maximise sales.

## Assessment Conditions

Skills must be demonstrated in a retail environment. This can be:

- an industry workplace
- a simulated industry environment.

Assessment must ensure access to:

- food products for display as selected in the Performance Evidence
- display areas
- display equipment and props for:
  - cleaning equipment and materials
  - food preparation and handling
- personal protective equipment and clothing
- product labels and price tickets
- ticketing and pricing equipment
- organisational food display guidelines
- relevant documentation:
  - organisational policies and procedures as listed in the Knowledge Evidence
  - food safety guidelines as applicable to specific food products.

Assessors must satisfy the Standards for Registered Training Organisations' requirements for assessors.

## Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=ca051b1b-5101-4ec2-ac1c-49699303188d>

# SIRRRTF001 Balance and secure point-of-sale terminal

## Modification History

Not applicable.

## Application

This unit describes the performance outcomes, skills and knowledge required to balance and reconcile a register or terminal in a retail environment, clear registers, count money, calculate non cash transactions, and reconcile and record takings.

It applies to individuals working in frontline operational roles in a diverse range retail industry sectors and business contexts. They operate with some independence under general supervision and guidance from others, and within established organisational policies and procedures.

No occupational licensing, certification or specific legislative requirements apply to this unit at the time of publication.

## Pre-requisite Unit

Nil

## Competency Field

Retail Financials

## Unit Sector

Retail

## Elements and Performance Criteria

### ELEMENTS

Elements describe the essential outcomes.

1. Balance and secure takings.

### PERFORMANCE CRITERIA

Performance criteria describe the performance needed to demonstrate achievement of the element.

- 1.1.Perform register or terminal balance at designated times.
- 1.2.Separate cash float from takings prior to balancing and secure takings.

- 1.3. Supply change to register or terminal and accurately record.
  - 1.4. Obtain and interpret register or terminal reading or print-out.
  - 1.5. Secure cash and non cash documents according to organisational procedures.
2. Reconcile takings.
  - 2.1. Count cash accurately.
  - 2.2. Calculate non cash documents accurately.
  - 2.3. Determine balance between register or terminal reading and sum of cash and non cash transactions.
  - 2.4. Investigate or report discrepancies between register or terminal reading and sum of cash and non cash transactions to relevant personnel.
  - 2.5. Record takings and file records according to organisational procedures.

## Foundation Skills

Foundation skills essential to performance are explicit in the performance criteria of this unit of competency.

## Unit Mapping Information

No equivalent unit.

## Links

Companion Volume implementation guides are found in VETNet -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=ca051b1b-5101-4ec2-ac1c-49699303188d>

# Assessment Requirements for SIRRRTF001 Balance and secure point-of-sale terminal

## Modification History

Not applicable.

## Performance Evidence

Evidence of the ability to complete tasks outlined in elements and performance criteria of this unit in the context of the job role, and:

- consistently apply organisational policies and procedures to:
  - balance a register or terminal on three occasions with complete accuracy
  - reconcile three different sets of takings comprising both cash and non-cash with complete accuracy
  - identify and resolve three different types of balancing discrepancies
  - process three different types of takings according to organisational policies and procedures.

## Knowledge Evidence

Demonstrated knowledge required to complete the tasks outlined in elements and performance criteria of this unit:

- role and importance of the balancing process
- techniques for identifying and resolving discrepancies
- functions and procedures for operating point-of-sale equipment:
  - opening and closing
  - balancing
  - clearance of terminal and transference of tender
  - recording takings
  - consumables required by system
  - security
- cash handling procedures:
  - counting cash
  - handling cash floats
  - change required, denominations of change and tendering change
  - security
- organisational policies and procedures for non-cash transactions:
  - credit cards
  - EFTPOS

- vouchers
- organisational policies and procedures for:
  - exchanges
  - refunds
  - lay-by
  - cash handling
  - cash float
  - operation of point-of-sale equipment
  - register or terminal balance
  - security of cash and non cash transactions.

## Assessment Conditions

Skills must be demonstrated in a retail environment. This can be:

- an industry workplace
- a simulated industry environment.

Assessment must ensure access to:

- organisational policies and procedures related to point-of-sale
- point-of-sale equipment and consumables
- financial transaction documentation for non-cash sales
- cash
- assessment activities that allow the individual to work with commercial speed, timing and productivity.

Assessors must satisfy the Standards for Registered Training Organisations' requirements for assessors.

## Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=ca051b1b-5101-4ec2-ac1c-49699303188d>



## SIRXCEG004 Create a customer-centric culture

### Modification History

Not applicable.

### Application

This unit describes the performance outcomes, skills and knowledge required to manage and ensure the delivery of customer service standards and work with team members to improve customer experiences.

It applies to individuals working in customer service management roles in a diverse range of industry sectors and business contexts. They operate independently with some responsibility for others and decision making, and within established organisational policies and procedures.

No occupational licensing, certification or specific legislative requirements apply to this unit at the time of publication.

### Pre-requisite Unit

Nil

### Competency Field

Customer Engagement

### Unit Sector

Cross-Sector

### Elements and Performance Criteria

#### ELEMENTS

Elements describe the essential outcomes.

1. Promote a customer focused culture.

#### PERFORMANCE CRITERIA

Performance criteria describe the performance needed to demonstrate achievement of the element.

- 1.1.Ensure team understanding of and commitment to providing quality customer service and enhancing the customer's experience.
- 1.2.Promote customer service standards within the team and

- encourage ownership over delivery of service standards.
- 1.3. Act as a positive role model displaying customer centric behaviours and consistently delivering on customer service standards.
- 2. Foster the customer culture.
  - 2.1. Ensure adequate team resourcing to ensure delivery on customer service standards.
  - 2.2. Monitor customer service and take action when standards are not met.
  - 2.3. Provide feedback to team on their ability to meet customer service standards.
  - 2.4. Provide coaching to team members to enhance customer service delivery.
- 3. Monitor and adjust customer service.
  - 3.1. Seek feedback from team and customers on customer service standards.
  - 3.2. Review customer trends and demands and seek opportunities to enhance customer experience based on findings.
  - 3.3. Develop and document customer service improvement plans in consultation with the team.

## Foundation Skills

Foundation skills essential to performance are explicit in the performance criteria of this unit of competency.

## Unit Mapping Information

No equivalent unit.

## Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=ca051b1b-5101-4ec2-ac1c-49699303188d>

# Assessment Requirements for SIRXCEG004 Create a customer-centric culture

## Modification History

Not applicable.

## Performance Evidence

Evidence of the ability to complete tasks outlined in elements and performance criteria of this unit in the context of the job role, and:

- monitor and review customer service standards, on three different occasions, and document a plan to improve customer service standards based on observations
- demonstrate the following approaches to promoting a customer-centric culture:
  - role-modelling customer service standards
  - observing standard of customer service delivery
  - coaching team members towards improvement
  - identifying and rectifying customer service delivery issues.

## Knowledge Evidence

Demonstrated knowledge required to complete the tasks outlined in elements and performance criteria of this unit:

- principles of quality customer service:
  - customer expectations
  - enhancing customer experience
- techniques for:
  - coaching others
  - providing performance feedback
  - seeking feedback
  - monitoring and reviewing customer services standards
  - improving customer service standards
- organisational customer services standards:
  - professional service standards
  - designated response times
  - customer service procedures
  - resources required to deliver on customer service standards
- commercial impact of:
  - quality customer service
  - poor customer service

- positive and negative customer reviews
- value and role of customer feedback in improving service delivery.

## Assessment Conditions

Skills must be demonstrated in a services industry environment. This can be:

- an industry workplace
- a simulated industry environment.

Assessment must ensure access to:

- organisational customer service standards:
  - professional service standards
  - designated response times
  - customer service procedures
  - resources required to deliver on customer service standards
- team members and customers; these can be:
  - individuals in an industry workplace, or
  - individuals who participate in role plays or simulated activities, set up for the purpose of assessment, in a simulated industry environment.

Assessors must satisfy the Standards for Registered Training Organisations' requirements for assessors.

## Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=ca051b1b-5101-4ec2-ac1c-49699303188d>

## SIRXMKT003 Manage promotional activities

### Modification History

Not applicable.

### Application

This unit describes the performance outcomes, skills and knowledge required to implement, manage and monitor promotional activities and determine effectiveness of promotional activities.

It applies to individuals working in promotions management roles in a diverse range of industry sectors and business contexts. They operate independently with some responsibility for others and decision making, and within established organisational policies and procedures.

No occupational licensing, certification or specific legislative requirements apply to this unit at the time of publication.

### Pre-requisite Unit

Nil

### Competency Field

Marketing

### Unit Sector

Cross-Sector

### Elements and Performance Criteria

#### ELEMENTS

Elements describe the essential outcomes.

1. Implement promotional activity.

#### PERFORMANCE CRITERIA

Performance criteria describe the performance needed to demonstrate achievement of the element.

- 1.1. Obtain and review promotional brief from relevant personnel and seek clarification as required.
- 1.2. Identify internal and external factors that may impact on success of promotional activities and take opportunities to limit or

- enhance impact.
- 1.3. Develop promotional objectives in consultation with relevant personnel.
- 1.4. Review organisational promotional guidelines and arrange required resources.
- 1.5. Review competitor promotional activity as required.
- 1.6. Share details of the promotion with team members, and assign relevant tasks and responsibilities.
- 2. Monitor promotional activity.
  - 2.1. Conduct checks to verify promotional guidelines are being followed.
  - 2.2. Check promotional items for correct display of information, pricing and labelling as required.
  - 2.3. Consult with team members and customers to gain feedback on promotional activity and communicate findings to relevant personnel.
- 3. Review promotional activity.
  - 3.1. Access and assess sales results for the promotional period.
  - 3.2. Report on promotional activity results and document impact of the promotional activity on sales results.

## Foundation Skills

Foundation skills essential to performance in this unit, but not explicit in the performance criteria are listed here, along with a brief context statement.

### SKILLS

### DESCRIPTION

Writing skills to:

- document promotional activity findings and results.

## Unit Mapping Information

No equivalent unit.

## Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=ca051b1b-5101-4ec2-ac1c-49699303188d>

## Assessment Requirements for SIRXMKT003 Manage promotional activities

### Modification History

Not applicable.

### Performance Evidence

Evidence of the ability to complete tasks outlined in elements and performance criteria of this unit in the context of the job role, and:

- access a promotions brief and develop promotion objectives for one of the following promotional activities:
  - launch of new product or service
  - promotion of seasonal event
  - promotion of sales event
- coordinate and monitor the above promotional activity across one promotional period
- review activities against objectives by:
  - assessing impact on sales
  - reporting on promotion activity outcomes and impacts.

### Knowledge Evidence

Demonstrated knowledge required to complete the tasks outlined in elements and performance criteria of this unit:

- organisational policies and procedures for promotional activities
- commercial law and legislation relevant to promotional activities
- organisational promotional guidelines
- promotional briefs and their role in marketing activities
- techniques for managing and coordinating promotional activities
- internal and external factors that impact on success of promotional activities including:
  - economic
  - social
  - technological
  - environmental
  - competition
- strategies for improving success of retail promotions
- promotional planning processes:
  - setting objectives
  - allocation of responsibilities

- resources
- documentation
- monitoring systems
- methods for measuring the success of promotional activities.

## Assessment Conditions

Skills must be demonstrated in:

- an industry workplace
- a simulated industry environment.

Assessment must ensure access to:

- promotional activities
- relevant documentation:
  - sales results for the specified promotional period
  - promotional brief
  - organisational policies and procedures for promotional activities
  - organisational promotional guidelines
  - relevant commercial law and legislation regarding promotional activities.

Assessors must satisfy the Standards for Registered Training Organisations' requirements for assessors.

## Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=ca051b1b-5101-4ec2-ac1c-49699303188d>



# SIRXPDK001 Advise on products and services

## Modification History

Not applicable.

## Application

This unit describes the performance outcomes, skills and knowledge required to develop product and service knowledge and provide information to customers.

This unit applies to individuals working in frontline customer service and sales roles in a diverse range of industry and business contexts. They operate with some independence under general supervision and guidance from others, and within established organisational policies and procedures.

No occupational licensing, certification or specific legislative requirements apply to this unit at the time of publication.

## Pre-requisite Unit

Nil

## Competency Field

Product Knowledge

## Unit Sector

Cross-Sector

## Elements and Performance Criteria

### ELEMENTS

Elements describe the essential outcomes.

1. Develop product and service knowledge.

### PERFORMANCE CRITERIA

Performance criteria describe the performance needed to demonstrate achievement of the element.

- 1.1. Identify and access sources of information on products and services.
- 1.2. Interpret information about availability, features and benefits of products and services.

- |                                  |   |
|----------------------------------|---|
|                                  | 1.3.Compare products and services based on product information.   |
|                                  | 1.4.Identify and use opportunities to update knowledge for the product and service range.                         |
| 2. Respond to customer requests. | 2.1.Answer customer questions about products and services with current and accurate information.                  |
|                                  | 2.2.Use questions to clarify customer information needs.  |
|                                  | 2.3.Explain product and service details using clear communication.  |
|                                  | 2.4.Source additional information when answer to customer request is unknown or refer to relevant colleagues.     |
| 3. Enhance information provided. | 3.1.Identify situations where additional information may assist the customer.                                     |
|                                  | 3.2.Advise on alternative products or services that may meet customer needs when requested item is not available. |
|                                  | 3.3.Recommend complementary products, specials, new lines and promotions to customers according to their needs.   |

## Foundation Skills

Foundation skills essential to performance in this unit, but not explicit in the performance criteria are listed here, along with a brief context statement.

### SKILLS

### DESCRIPTION

Numeracy skills to:

- interpret pricing information.

## Unit Mapping Information

No equivalent unit.

## Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=ca051b1b-5101-4ec2-ac1c-49699303188d>

# Assessment Requirements for SIRXPDK001 Advise on products and services

## Modification History

Not applicable.

## Performance Evidence

Evidence of the ability to complete tasks outlined in elements and performance criteria of this unit in the context of the job role, and:

- access and interpret sources of information on four different products or services
- respond to four different customer inquiries for product or service information that individually or cumulatively require provision of information on all of the following:
  - features and benefits
  - price
  - alternative products or services
  - complementary products or services.

## Knowledge Evidence

Demonstrated knowledge required to complete the tasks outlined in elements and performance criteria of this unit:

- organisational policies and procedures for:
  - interactions with customers
  - product or service pricing
- basic key aspects of legislation that impact provision of information for the product or service range:
  - Australian Consumer Law
  - product or service specific legislation
- interpersonal communication techniques:
  - active listening and questioning
  - communication methods which convey information clearly and concisely
- product and service information for the product or service range:
  - features and benefits
  - price
  - care and handling of products
  - availability
  - storage requirements, shelf life and use by date
  - warranties

- ingredients or materials contained in product
- origins
- alternative products and services
- complementary products and services.

## Assessment Conditions

Skills must be demonstrated in a services industries environment. This can be:

- an industry workplace
- a simulated industry environment.

Assessment must ensure access to:

- a product or service range
- sources of product information
- relevant documentation:
  - current plain English regulatory documents distributed by government regulators outlining factors that impact provision of information for the product or service range
  - price lists
  - organisational policies and procedures relevant to product and service advice
- customers; these can be:
  - customers in an industry workplace, or
  - individuals who participate in role plays or simulated activities, set up for the purpose of assessment, in a simulated industry environment.

Assessors must satisfy the Standards for Registered Training Organisations' requirements for assessors.

## Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=ca051b1b-5101-4ec2-ac1c-49699303188d>

# SIRXRSK001 Identify and respond to security risks

## Modification History

Not applicable.

## Application

This unit describes the performance outcomes, skills and knowledge required to identify security risks related to customers, team members, merchandise and money, and take appropriate action, within scope of job role, to eliminate or minimise those risks.

It applies to individuals at all levels working in frontline roles in a diverse range of industry sectors and business contexts.

No occupational licensing, certification or specific legislative requirements apply to this unit at the time of publication.

## Pre-requisite Unit

Nil

## Competency Field

Risk Management and Security

## Unit Sector

Cross-Sector

## Elements and Performance Criteria

### ELEMENTS

Elements describe the essential outcomes.

1. Identify potential security risks.

### PERFORMANCE CRITERIA

Performance criteria describe the performance needed to demonstrate achievement of the element.

- 1.1. Identify potential risks to merchandise, cash and non-cash, and take swift action to prevent escalation of security risk in line with organisational procedures.
- 1.2. Identify potential risks to safety of customers, self or team members, and take swift action to prevent escalation of security

- risk in line with organisational procedures.
- 1.3. Remain vigilant and alert to potential security risks, and follow organisational policies and procedures to minimise security risks.
  - 1.4. Maintain security of merchandise, cash and non-cash according to organisational procedures.
  2. Respond to security breaches.
    - 2.1. Identify security breaches and respond in line with organisational policies and procedures.
    - 2.2. Recognise security breaches outside of scope responsibility and promptly refer to relevant personnel.
    - 2.3. Prioritise personal safety when responding to security breaches.
  3. Report on security issues.
    - 3.1. Report suspicious behaviour to relevant personnel.
    - 3.2. Report faulty security equipment to relevant personnel.
    - 3.3. Report on security breaches and ongoing security risks in line with organisational policies and procedures.

## Foundation Skills

Foundation skills essential to performance in this unit, but not explicit in the performance criteria are listed here, along with a brief context statement.

SKILLS	DESCRIPTION
Writing skills to:	<ul style="list-style-type: none"> <li>complete basic written reports regarding security breaches.</li> </ul>

## Unit Mapping Information

No equivalent unit.

## Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=ca051b1b-5101-4ec2-ac1c-49699303188d>

## Assessment Requirements for SIRXRSK001 Identify and respond to security risks

### Modification History

Not applicable.

### Performance Evidence

Evidence of the ability to complete tasks outlined in elements and performance criteria of this unit in the context of the job role, and:

- follow organisational policies and procedures to demonstrate the appropriate response, within scope of job role, to four of the following security issues:
  - faulty security equipment
  - suspicious customer behaviour
  - suspicious team member behaviour
  - breaches of cash handling security procedures
  - breaches of merchandise movement security procedures
  - theft of cash
  - theft of merchandise
  - armed robbery
  - individual posing threat to personal safety
- identify potential security risks within the workplace and determine appropriate measures to eliminate the risk.

### Knowledge Evidence

Demonstrated knowledge required to complete the tasks outlined in elements and performance criteria of this unit:

- organisational policies and procedures for:
  - use of security equipment
  - suspicious customer behaviour
  - suspicious team member behaviour
  - armed robbery
  - cash and non-cash security
  - merchandise security
  - theft
  - responding to security breaches
  - reporting security risks and breaches
  - surveillance of merchandise

- personal security
- common security risks within the retail workplace and techniques to:
  - identify risk
  - minimise risk
- impacts of security breaches on individuals and organisation:
  - emotional distress
  - financial loss
  - commercial loss.

## Assessment Conditions

Skills must be demonstrated in a services industry environment. This can be:

- an industry workplace
- a simulated industry environment.

Assessment must ensure access to:

- organisational policies and procedures relevant to security as listed in the Knowledge Evidence
- customers and team members; these can be:
  - individuals in an industry workplace, or
  - individuals who participate in role plays or simulated activities, set up for the purpose of assessment, in a simulated industry environment
- assessment activities that allow the individual to work with commercial speed and timing.

Assessors must satisfy the Standards for Registered Training Organisations' requirements for assessors.

## Links

Companion Volume implementation guides are found in VETNet -

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## SIRXRSK002 Maintain store security

### Modification History

Not applicable.

### Application

This unit describes the performance outcomes, skills and knowledge required to maintain store security in a retail environment.

It applies to individuals working in frontline management roles in a diverse range of industry sectors and business contexts. They operate independently with some responsibility for others and decision making, and within established organisational policies and procedures.

No occupational licensing, certification or specific legislative requirements apply to this unit at the time of publication.

### Pre-requisite Unit

Nil

### Competency Field

Risk Management and Security

### Unit Sector

Cross-Sector

### Elements and Performance Criteria

#### ELEMENTS

Elements describe the essential outcomes.

1. Monitor and maintain store security.

#### PERFORMANCE CRITERIA

Performance criteria describe the performance needed to demonstrate achievement of the element.

- 1.1. Implement organisational policies and procedures to ensure store security is maintained.
- 1.2. Monitor and review security procedures continually and act on opportunities to improve store security.
- 1.3. Maintain security of merchandise, cash, points of sale and

- keys.
- 1.4.Ensure store security equipment is used and in correct working order.
- 1.5.Report matters impacting store security to relevant personnel.
- 1.6.Document breaches of security as required.
- 2. Facilitate security awareness.
  - 2.1.Inform team members of organisational policies and procedures for security.
  - 2.2.Provide team members with feedback on their implementation or non-implementation of security procedures.
  - 2.3.Provide team members with ongoing supervision and training to facilitate security awareness.

## Foundation Skills

Foundation skills essential to performance are explicit in the performance criteria of this unit of competency.

## Unit Mapping Information

No equivalent unit.

## Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=ca051b1b-5101-4ec2-ac1c-49699303188d>

# Assessment Requirements for SIRXRSK002 Maintain store security

## Modification History

Not applicable.

## Performance Evidence

Evidence of the ability to complete tasks outlined in elements and performance criteria of this unit in the context of the job role, and:

- maintain store security over three different work shifts by:
  - monitoring adherence to organisational security policies and procedures
  - responding to two occurrences of non-adherence to security policies and procedures
  - communicating security policies and procedures to one team member
  - ensuring security equipment is utilised and in correct working order
  - reporting on opportunities for improved store security.

## Knowledge Evidence

Demonstrated knowledge required to complete the tasks outlined in elements and performance criteria of this unit:

- organisational policies and procedures for:
  - use of security equipment
  - suspicious customer behaviour
  - suspicious team member behaviour
  - armed robbery
  - cash and non-cash security
  - merchandise security
  - theft
  - responding to security breaches
  - reporting security risks and breeches
  - surveillance of merchandise
  - personal security
  - general store security
  - team members' security training
  - security for opening and closing premises
  - reporting problems and faults
  - security of visitors, sales representatives, contractors and vendors
  - security risks likely to endanger customers or team members

- legislation as relevant to store security and own level of responsibility:
  - privacy laws
  - Australian Consumer Law
  - reporting procedures
- impacts of security breaches on individuals and organisation:
  - emotional distress
  - financial loss
  - commercial impacts
- common security risks within the retail workplace and techniques to:
  - identify risk
  - minimise risk
- types of store alarms and security systems used in industry.

## Assessment Conditions

Skills must be demonstrated in a services industry environment. This can be:

- an industry workplace
- a simulated industry environment.

Assessment must ensure access to:

- relevant equipment:
  - alarm systems
  - surveillance equipment
  - point-of-sale equipment
  - communication equipment
- relevant documentation:
  - current plain English regulatory documents distributed by government regulators legislation as relevant to store security and own level of responsibility as listed in Knowledge Evidence
  - organisational policies and procedures as listed in the Knowledge Evidence
- customers and team members; these can be:
  - individuals in an industry workplace, or
  - individuals who participate in role plays or simulated activities, set up for the purpose of assessment, in a simulated industry environment.

Assessors must satisfy the Standards for Registered Training Organisations' requirements for assessors.

## Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=ca051b1b-5101-4ec2-ac1c-49699303188d>

## SIRXSL001 Sell to the retail customer

### Modification History

Not applicable.

### Application

This unit describes the performance outcomes, skills and knowledge required to deliver quality customer service and sell to retail customers. It requires the ability to determine customer needs, match products and services to their needs, and facilitate a sale.

This unit applies to all retail sectors and business sizes from large format stores to small independents. It applies to retail personnel at all levels who play a role in engaging with customers with the purpose of selling.

No occupational licensing, certification or specific legislative requirements apply to this unit at the time of publication.

### Pre-requisite Unit

Nil

### Competency Field

Sales

### Unit Sector

Cross-Sector

### Elements and Performance Criteria

#### ELEMENTS

Elements describe the essential outcomes.

1. Establish customer needs.

#### PERFORMANCE CRITERIA

Performance criteria describe the performance needed to demonstrate achievement of the element.

- 1.1. Connect with the customer within designated response times and establish rapport.
- 1.2. Use questioning and active listening to facilitate effective two-way communication.

- 1.3. Observe and determine appropriate level of interaction based on customer verbal and non-verbal cues.
- 1.4. Determine and clarify customer preferences, needs and expectations.
2. Provide advice on products and services.
  - 2.1. Use product and service knowledge to tailor options to specific customer needs, and offer alternatives when product is unavailable.
  - 2.2. Clearly explain and promote product and service features and benefits where relevant.
  - 2.3. Advise on promotional events where relevant.
  - 2.4. Provide additional information to address customer questions and objections.
  - 2.5. Offer comparisons to competitor product or service range as required.
  - 2.6. Collaborate with the customer to determine product or service option most suited to their needs.
  - 2.7. Take opportunities to upsell and cross sell products and services that enhance customer request and maximise profitability of sale.
3. Facilitate the sale of products and services.
  - 3.1. Select and use appropriate techniques to close sale.
  - 3.2. Direct the customer to designated point-of-sale and process sale, as required, according to organisational procedures.
  - 3.3. Farewell customer on leaving, and invite to return.
  - 3.4. Provide any required after sales service according to organisational procedures.

## Foundation Skills

Foundation skills essential to performance in this unit, but not explicit in the performance criteria are listed here, along with a brief context statement.

- Reading skills to:
- interpret:
    - detailed in-house and supplier product information documents
    - plain English documents that outline organisational customer service policy and procedures.
- Numeracy skills to:
- interpret basic fee information from in-house documents and complete basic pricing calculations.
- Problem-solving skills to:
- respond to customer objections and provide appropriate solutions to satisfy customer needs.
- Technology skills to:
- use technologies equipped with search functionality and information systems to source product and service information.

## Unit Mapping Information

No equivalent unit.

## Links

Companion Volume implementation guides are found in VETNet -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=ca051b1b-5101-4ec2-ac1c-49699303188d>



# Assessment Requirements for SIRXSL001 Sell to the retail customer

## Modification History

Not applicable.

## Performance Evidence

Evidence of the ability to complete tasks outlined in elements and performance criteria of this unit in the context of the job role, and:

- interact with four different retail customers to initiate and close the sale of different retail products or services
- demonstrate the following during the above customer interactions:
  - appropriate communication
  - establishment and clarification of customer needs, wants and expectations
  - product and/or service knowledge
  - appropriate sales approach to sell benefits and features of products and/or services
  - overcome objections and close sales
  - upsell and/or cross sell additional products and/or services that complement the sale
  - promotion of customer loyalty and repeat sales.

## Knowledge Evidence

Demonstrated knowledge required to complete the tasks outlined in elements and performance criteria of this unit:

- appropriate body language for customer service
- basic principles of positive customer service and sales
- open and closed questioning techniques related to the sale of product and services
- verbal and non-verbal cues indicating customer understanding of information
- techniques for effective communication with customers of diverse backgrounds:
  - cultural diversity
  - special needs
- sales techniques:
  - opening techniques
  - recognising buying signals
  - strategies to focus customer on specific products and services
  - selling add-ons and complementary products
  - overcoming customer objections
  - closing techniques

- primary components of consumer protection laws that relate to selling products and services, especially organisational responsibility for supplying products and services as described or substituting suitable products and services when unable
- primary components of privacy law, and actions that retail business must take to protect privacy of customer information
- for the specific retail sector:
  - professional service standards and protocols for retail industry personnel
  - attitudes and attributes expected by the retail industry to work with customers
  - different customer service needs and expectations
- for the particular retail organisation:
  - product and service knowledge:
    - product and service range offering
    - product specifications, features and benefits
  - designated response times for providing customer service
  - customer service procedures including recording of and storing customer details.

## Assessment Conditions

Skills must be demonstrated in a retail environment. This can be:

- an industry workplace
- a simulated industry environment.

Assessment must ensure access to:

- relevant documentation:
  - organisational policies and procedures for:
    - customer service
    - sale of products and services
    - resolving customer complaints
    - collection and storage of customer details
  - organisational product information and price lists
  - supplier brochures, information sheets and price lists
  - promotional activity information
  - current plain English regulatory documents distributed by government regulators for:
    - consumer protection law
    - privacy law
- customers with whom the individual can interact to sell products and services; these can be:
  - individuals in an industry workplace, or
  - individuals who participate in role plays or simulated activities, set up for the purpose of assessment, in a simulated industry environment operated within a training organisation

- assessment activities that allow the individual to:
  - work within commercial speed, timing and productivity
  - manage tasks and contingencies in the context of the job role.

Assessors must satisfy the Standards for Registered Training Organisations' requirements for assessors.

## Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=ca051b1b-5101-4ec2-ac1c-49699303188d>

# SIRXSL002 Follow point-of-sale procedures

## Modification History

Not applicable.

## Application

This unit describes the performance outcomes, skills and knowledge required to follow point-of-sale work systems, process transactions and complete sales.

It applies to individuals working in frontline operational roles in a diverse range of industry sectors and business contexts. They operate with some independence under general supervision and guidance from others, and within established organisational policies and procedures.

No occupational licensing, certification or specific legislative requirements apply to this unit at the time of publication.

## Pre-requisite Unit

Nil

## Competency Field

Sales

## Unit Sector

Cross-Sector

## Elements and Performance Criteria

### ELEMENTS

Elements describe the essential outcomes.

1. Follow point of sale work systems.

### PERFORMANCE CRITERIA

Performance criteria describe the performance needed to demonstrate achievement of the element.

- 1.1.Open and close point-of-sale terminal at designated times and according to organisational procedures.
- 1.2.Clear point-of-sale terminal and transfer cash.
- 1.3.Handle cash according to organisational policies and

- procedures.
- 1.4.Maintain supplies of change at agreed levels in point-of-sale terminal to agreed levels.
  - 1.5.Maintain adequate supplies of consumables.
2. Process point-of-sale transactions.
    - 2.1.Identify transaction type and required procedure to be followed.
    - 2.2.Correctly interpret sale price information.
    - 2.3.Make accurate calculations for pricing and collection of payment.
    - 2.4.Enter accurate sale information into point-of-sale equipment.
    - 2.5.Confirm price to customer and check customer payment against sale value.
    - 2.6.Provide correct change for cash payments.
    - 2.7.Identify transaction errors, follow procedures for resolution and complete accurate records.
  3. Complete sales.
    - 3.1.Generate and complete documentation associated with the sale.
    - 3.2.Confirm and process any purchase follow up activities.
    - 3.3.Acknowledge and thank customer in line with organisational policy.

## Foundation Skills

Foundation skills essential to performance in this unit, but not explicit in the performance criteria are listed here, along with a brief context statement.

SKILLS	DESCRIPTION
Numeracy skills to:	<ul style="list-style-type: none"><li>• interpret numerical information from various sources and calculate accurately with or without the use of a calculator.</li><li>• measure or estimate quantities to calculate costs.</li><li>• calculate percentage discounts.</li></ul>

## Unit Mapping Information

No equivalent unit.

## Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=ca051b1b-5101-4ec2-ac1c-49699303188d>

# Assessment Requirements for SIRXSL002 Follow point-of-sale procedures

## Modification History

Not applicable.

## Performance Evidence

Evidence of the ability to complete tasks outlined in elements and performance criteria of this unit in the context of the job role, and:

- follow procedures for set up, maintenance and close of point-of-sale area/terminal on three different occasions
- perform three point-of-sale transactions for each of the following:
  - cash sales
  - non-cash sales
- perform three point-of-sale transactions for each of the following:
  - refunds
  - exchanges
- make six accurate financial calculations relating to product pricing that individually or cumulatively involve:
  - multiple products
  - products of varying prices
  - products with percentage discounts
- follow procedures to complete four sales that require post purchase activity.

## Knowledge Evidence

Demonstrated knowledge required to complete the tasks outlined in elements and performance criteria of this unit:

- organisational policies and procedures for:
  - exchanges
  - refunds
  - lay-by
- basic key aspects of legislation that impact point-of-sale activities:
  - Australian Consumer Law
- features of products sold by the organisation
- functions and procedures for operating point-of-sale equipment:
  - opening and closing
  - clearance of terminal and transference of tender

- recording takings
- consumables required by system
- security
- cash handling procedures:
  - counting cash
  - handling cash floats
  - change required, denominations of change and tendering change
  - security
- procedures for non-cash transactions:
  - credit cards
  - EFTPOS
  - vouchers
- types of purchase follow up activities and associated organisational policies and procedures:
  - placing of orders
  - delivery
  - issuing of invoices
  - issuing of receipts
  - wrapping and packing.

## Assessment Conditions

Skills must be demonstrated in a service industries environment. This can be:

- an industry workplace
- a simulated industry environment.

Assessment must ensure access to:

- organisational policies and procedures for point-of-sale activities
- current plain English regulatory documents distributed by government regulators outlining key aspects of legislation that impact point-of-sale activities as listed in the Knowledge Evidence
- point-of-sale equipment and consumables
- financial transaction documentation for non-cash sales
- cash
- assessment activities that allow the individual to work with commercial speed, timing and productivity.

Assessors must satisfy the Standards for Registered Training Organisations' requirements for assessors.



## Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=ca051b1b-5101-4ec2-ac1c-49699303188d>

## SITHFAB002 Provide responsible service of alcohol

### Modification History

Version	Comments
Release 1.0 updated on 2 March 2023	Minor changes to Knowledge Evidence in Assessment Requirements

### Application

This unit describes the performance outcomes, skills and knowledge required to responsibly sell or serve alcohol.

Responsible practices must be undertaken wherever alcohol is sold or served, including where alcohol samples are served during on-site product tastings. This unit, therefore, applies to any workplace where alcohol is sold or served, including all types of hospitality venues, packaged liquor outlets and wineries, breweries and distilleries.

The unit applies to all levels of sales personnel involved in the sale, service and promotional service of alcohol in licensed premises. Those selling or serving alcohol may include food and beverage attendants; packaged liquor sales persons selling in person, over the phone or online; winery, brewery and distillery cellar door staff; and supplier sales representatives. The unit also applies to security staff who monitor customer behaviour and to the licensee who is ultimately responsible for responsible service of alcohol (RSA) management.

The unit incorporates the knowledge requirements, under state and territory liquor licensing law, for employees engaged in the sale or service of alcohol.

Certification requirements differ across states and territories. In some cases all people involved in the sale, service and promotional service of alcohol in licensed premises must be certified in this unit. This can include the licensee and security staff.

This unit covers the RSA skill and knowledge requirements common to all States and Territories. Some legislative requirements and knowledge will differ across borders. In some cases after completion of this unit, state and territory liquor authorities require candidates to complete a bridging course to address these specific differences.

Those developing training to support this unit must consult the relevant state or territory liquor licensing authority to determine any accreditation arrangements for courses, trainers and assessors.

## Pre-requisite Unit

Nil

## Competency Field

Food and Beverage

## Unit Sector

Hospitality

## Elements and Performance Criteria

### ELEMENTS

Elements describe the essential outcomes.

1. Sell or serve alcohol responsibly.
2. Assist customers to drink within appropriate limits.

### PERFORMANCE CRITERIA

Performance criteria describe the performance needed to demonstrate achievement of the element.

- 1.1. Sell or serve alcohol according to provisions of relevant state or territory legislation, licensing requirements and responsible service of alcohol principles.
- 1.2. Where appropriate, request and obtain acceptable proof of age prior to sale or service.
- 1.3. Provide accurate information to customers on alcoholic beverages according to organisation or house policy and government legislation.
- 1.4. Assist customers with information on the range of non-alcoholic beverages available for purchase.
- 1.5. Identify issues related to the sale or service of alcohol to different types of customers, especially those at risk, and incorporate them into sales or service.
- 2.1. Prepare and serve standard drinks or samples according to industry requirements and professional standards.
- 2.2. Use a professional manner to encourage customers to drink within appropriate limits.
- 2.3. Recognise erratic drinking patterns as an early sign of possible intoxication and take appropriate action.
- 2.4. Monitor emotional and physical state of customers for

- signs of intoxication and effects of illicit or other drug use.
- 2.5. Where appropriate, offer food and non-alcoholic beverages.
- 2.6. Decline requests for alcohol to be dispensed in a manner that is irresponsible and advise customers of the reasons for the refusal.
3. Assess alcohol affected customers and identify those to whom sale or service must be refused.
- 3.1. Assess intoxication levels of customers using appropriate methods.
- 3.2. When assessing intoxication, take into account factors that may affect individual responses to alcohol.
- 3.3. Identify customers to whom sale or service must be refused according to state and territory legislation.
4. Refuse to provide alcohol.
- 4.1. Refuse sale or service in a professional manner, state reasons for the refusal, and where appropriate point out signage.
- 4.2. Provide appropriate assistance to customers when refusing service.
- 4.3. Where appropriate, give customers a verbal warning and ask them to leave the premises according to organisational or house requirements, the specific situation, and provisions of state or territory legislation and regulations.
- 4.4. Use appropriate communication and conflict resolution skills to handle difficult situations.
- 4.5. Refer difficult situations beyond the scope of own responsibility to the appropriate person.
- 4.6. Promptly identify situations that pose a threat to the safety or security of colleagues, customers or property, and seek assistance from appropriate colleagues according to organisational policy.

## Foundation Skills

Foundation skills essential to performance in this unit, but not explicit in the performance criteria are listed here, along with a brief context statement.

### SKILLS

### DESCRIPTION

- Reading skills to:
- read at times complex information in:
    - general regulatory and advisory information issued by local, or state and territory liquor licensing authorities
    - in house policies and procedures
    - specific provisions of relevant state or territory legislation and

- licensing requirements
- read a range of identification (ID) and proof of age documents, statutory signage, and warning signs and wording within in house policies and procedures.
- Oral communication skills to:
  - provide complex information on responsible service of alcohol laws in a way that is easily understandable for customers
  - speak firmly and clearly with intoxicated customers in a manner that de-escalates conflict.
- Numeracy skills to:
  - measure and calculate standard drinks or samples
  - determine customer's age from date of birth on ID and proof of age documents.
- Learning skills to:
  - source relevant information on laws, regulations and codes of practice or conduct relating to responsible service of alcohol and continuously update knowledge of changes in that information.
- Teamwork skills to:
  - share customer information with team members to ensure proper responsible service of alcohol practices within the organisation.
- Self-management skills to:
  - deal with hostile and uncooperative customers in a professional manner and in line with organisational procedures.

## Unit Mapping Information

SITHFAB201 Provide responsible service of alcohol

## Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=68c40a93-e51d-4e0f-bc06-899dff092694>

## Assessment Requirements for SITHFAB002 Provide responsible service of alcohol

### Modification History

Version	Comments
Release 1.0 updated on 2 March 2023	Minor changes to Knowledge Evidence in Assessment Requirements

### Performance Evidence

Evidence of the ability to complete tasks outlined in elements and performance criteria of this unit in the context of the job role, and:

- interpret the legal requirements for responsible sale or service of alcohol for the local state or territory law
- document organisational policies and procedures that must be followed for the responsible sale or service of alcohol
- identify at least three early indicators of intoxication and identify suitable intervention strategies to prevent intoxication
- demonstrate procedure to refuse sale or service of alcohol and assist each of the following groups of intoxicated customers:
  - those in emotional or physical distress
  - those with no food consumption during extended service of alcohol
  - those who appear to be under the effect of illicit substances or other drugs
- demonstrate organisational or house requirements and use effective communication and conflict-resolution skills when asking the following different intoxicated customers to leave the premises:
  - one compliant customer
  - one difficult customer refusing to leave.

### Knowledge Evidence

Demonstrated knowledge required to complete the tasks outlined in elements and performance criteria of this unit:

- public interest reasons for implementing responsible service of alcohol (RSA) practices:
  - government and community concern with alcohol misuse and abuse
  - alcohol-impaired driving accidents, crime, public violence, family violence and anti social behaviour associated with alcohol abuse
- ways of assessing intoxication:

- observing changes in behaviour
- observing emotional and physical state
- monitoring noise levels and drink purchases
- customers to whom sale or service must be refused according to state and territory legislation:
  - minors and those purchasing on behalf of minors
  - intoxicated persons
  - persons affected by the consumption of illicit and other drugs
- impact of excessive drinking on:
  - local neighbourhood and community
  - the night-time economy
  - premises and staff
  - customers
  - particular types of customers who are at heightened risk:
    - minors
    - people affected by the consumption of illicit and other drugs
    - women, particularly pregnant women
    - young people
  - physical and mental health of individuals who drink to excess
  - productivity of individuals who drink to excess
  - those around the person drinking to excess:
    - family
    - friends
    - colleagues
  - government agencies:
    - local police
    - health facilities
    - road authorities
    - local councils
- key agencies and how to source relevant information on laws, regulations and codes of practice or conduct
- methods of supplying information on responsible sale or service of alcohol to customers:
  - use of fact sheets and advertising material that comply with legislative requirements
  - use of mandatory signage
  - verbally
  - websites
- current promotional and strategic community education campaigns developed and conducted by agencies and industry groups
- effects of alcohol on:
  - emotional state

- health
- physical alertness
- factors that affect individual responses to alcohol:
  - food consumption
  - gender
  - general health
  - rate of consumption
  - other substances taken
  - weight
- time for effects of alcohol to be registered
- what constitutes a standard drink for different beverage types and acceptable measures of alcohol:
  - types and strengths of standard drinks
  - alcoholic percentages of a range of frequently sold alcoholic beverages
- indicators of erratic drinking patterns:
  - mixing a wide range of drink types
  - drinking quickly and asking for more immediately
  - ordering more than one drink for own consumption
  - mixing alcohol consumption with consumption of prescription or illicit drugs
  - consistently returning to the tasting site to request more samples
  - ordering multiple samples
  - ordering large samples
  - ordering 'triple shots' or extra-large drinks
- ways of assessing customers affected by the consumption of illicit and other drugs
- communications methods used when refusing service:
  - using open and non-aggressive body language
  - using a number of strategies to defuse a situation:
    - taking the person away from an audience
    - blaming the refusal on 'the law'
  - monitoring the reactions of other customers
  - picking early warning signs and intervening before the person is intoxicated
  - not using physical touch or body language
  - remaining calm and using tactful language
- appropriate means of assistance to be offered when refusing service:
  - assisting the customer to connect with their designated driver
  - offering alternatives to alcohol:
    - food
    - non-alcoholic drinks
  - organising transport for customers wishing to leave
  - providing information on taxis



- principles of responsible delivery of packaged liquor:
  - ensuring adequate instruction to person delivering liquor
  - seeking proof that the delivery is being received by a person over the age of 18
  - procedures for delivering alcohol to an unoccupied premises
- principles of responsible service of alcohol, and their purpose and benefits
- principles of harm minimisation and community safety described in the jurisdiction's liquor legislation
- strategies to minimise the harm associated with liquor abuse:
  - those laid down in legislation and codes of conduct developed by government agencies and industry groups
  - organisational policies that are designed to reduce the harm associated with liquor abuse
- key provisions of liquor laws and regulations at a depth relevant to the scope of job responsibility in licensed premises and the following general requirements of liquor legislation and information that must be customised for each State or Territory:
  - legislative definition of intoxication; intoxicated person and unduly intoxicated
  - role of individual staff members and supervisors or managers in providing responsible service of alcohol, and seller or server duty of care and liability
  - requirement to adopt and use statutory signage on the premises for the entire range of circumstances applicable to the organisation
  - requirements for mandatory content of warning signs and wording in advertising or promotional material of any form
  - requirements relating to the remote sale and delivery of alcohol sales generated via the telephone, fax, email, internet or mail
  - requirements for proof of age and obligations to minors under local legislation
  - provisions for retaining and reporting falsified proof of age documents
  - provisions for requiring someone to leave the premises
  - transportation options for customers who have been removed from the premises
  - procedures for barring customers from premises
  - opening and closing hour provisions
  - requirements for monitoring noise and disturbances in and around licensed premises
  - requirements described by an in house policy, standard or code of practice or conduct for patrons and RSA staff in regard to responsible serving principles adopted by venue management
  - organisational training and training record keeping requirements to maintain currency in RSA certification
  - products that are banned or undesirable when responsibly selling or serving alcohol
  - personal and business implications of breaching any laws, regulations, government or industry-driven codes of practice or conduct
  - offences relating to the sale or service of alcohol and ramifications of non-compliance with the law and industry codes for the organisation, licensee and individual staff members

- legal restrictions on alcohol use customised to state or territory legislation
- intoxication provisions of liquor licensing laws
- legal drink and drive limits customised to state or territory legislation
- organisation specific policies and procedures for the responsible sale or service of alcohol.

## Assessment Conditions

Skills must be demonstrated in an operational hospitality environment. This can be:

- an industry workplace
- a simulated industry environment.

Assessment must ensure access to:

- measures used to serve standard drinks or samples
- organisation specifications:
  - signage:
    - signs that comply with wording required by legislation
    - standard promotional signs issued by the relevant state or territory licensing authority
    - warning notices within any form of advertising
  - information and plain English fact sheets distributed by government regulators and industry bodies
  - contact information on taxis and available transport options for intoxicated customers
- industry-realistic range of customers to whom alcohol is sold or served; these can be:
  - customers in an industry workplace during the assessment process; or
  - individuals who participate in role plays or simulated activities, set up for the purpose of assessment, in a simulated industry environment operated within a training organisation.

Assessors must satisfy the Standards for Registered Training Organisations' requirements for assessors; and:

- have worked in industry for at least three years where they have applied the skills and knowledge of this unit of competency.

## Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=68c40a93-e51d-4e0f-bc06-899dff092694>

# **SITHFAB005 Prepare and serve espresso coffee**

## **Modification History**

Not applicable.

## **Application**

This unit describes the performance outcomes, skills and knowledge required to extract and serve espresso coffee beverages using commercial espresso machines and grinders. It requires the ability to advise customers on coffee beverages, select and grind coffee beans, prepare and assess espresso coffee beverages and to use, maintain and clean espresso machines and grinders. Complex repairs of equipment would be referred to specialist service technicians.

Preparation of coffee beverages using other methods is covered in SITHFAB004 Prepare and serve non-alcoholic beverages.

This unit applies to any hospitality organisation that serves espresso coffee beverages, including cafes, restaurants, bars, clubs, function and event venues.

It applies to espresso machine operators who operate with some level of independence and under limited supervision.

No occupational licensing, certification or specific legislative requirements apply to this unit at the time of publication.

## **Pre-requisite Unit**

SITXFSA001 Use hygienic practices for food safety

## **Competency Field**

Food and Beverage

## **Unit Sector**

Hospitality

## Elements and Performance Criteria

### ELEMENTS

Elements describe the essential outcomes.

1. Organise coffee workstation.

2. Select and grind coffee beans.

3. Advise customers and take espresso coffee orders.

4. Extract and monitor quality of espresso.

5. Undertake milk texturing process.

### PERFORMANCE CRITERIA

Performance criteria describe the performance needed to demonstrate achievement of the element.

- 1.1. Complete mise en place for coffee service to enable efficient work flow and easy access to ingredients, equipment, and service-ware.
- 1.2. Place ingredients in correct containers and conditions to maintain freshness.
- 1.3. Prepare espresso machine and grinder for service according to manufacturer instructions.
- 2.1. Select coffee beans and grind to appropriate particle size according to relevant factors.
- 2.2. Complete test extractions before service to ensure correct particle size of grind, and assess and adjust according to relevant factors.
- 2.3. Adjust grind regularly throughout the service period according to relevant factors.
- 2.4. Monitor efficiency of grinder for correct dose and grind during use, and resolve or report issues.
- 2.5. Clean grinder as required during or after the service period.
- 3.1. Provide information and recommendations about types of coffee beverages and accompaniments.
- 3.2. Identify customer preferences and take orders.
- 4.1. Select and prepare appropriate service-ware.
- 4.2. Select correct filter basket and clean, dry and dose it with required amount of ground coffee.
- 4.3. Tamp ground coffee to make even and level cake.
- 4.4. Flush group head before attaching group handle to extract espresso.
- 4.5. Monitor quality of extraction during service period and make adjustments.
- 4.6. Monitor efficiency of espresso machine during service, and resolve or report issues.
- 5.1. Select cold milk and appropriate milk foaming jug to fulfil customer orders.
- 5.2. Purge the steam wand every time before texturing.
- 5.3. Texture milk according to type of milk and coffee beverage.
- 5.4. Visually and aurally monitor and adjust the texture and temperature.

- 5.5.Clean the steam wand on the outside and purge every time after texturing.
- 5.6.Combine foam and milk through swirling, ensuring even consistency.
- 5.7.Pour milk immediately after swirling, according to the coffee beverage.
- 6. Serve espresso coffee beverages.
  - 6.1.Present coffee beverages attractively and without drips and spills.
  - 6.2.Serve coffee beverages promptly at the required temperature and with appropriate accompaniments.
  - 6.3.Minimise waste to maximise profitability of beverages produced.
- 7. Clean espresso equipment.
  - 7.1.Clean espresso machine and equipment thoroughly and safely according to organisational procedures and manufacturer instructions.
  - 7.2.Maintain water filtration system according to organisational procedures.
  - 7.3.Refer faults and maintenance issues requiring technical specialists to supervisor.
  - 7.4.Use energy and water resources efficiently when preparing coffee beverages and cleaning to reduce negative environmental impacts.

## Foundation Skills

Foundation skills essential to performance in this unit, but not explicit in the performance criteria are listed here, along with a brief context statement.

SKILLS	DESCRIPTION
Reading skills to:	<ul style="list-style-type: none"> <li>• interpret organisational documents or diagrams that relate to:               <ul style="list-style-type: none"> <li>• safety data sheets (SDS) and product instructions for cleaning chemicals</li> <li>• organisational procedures for operating, cleaning and maintaining equipment</li> </ul> </li> <li>• read beverage menus and standard recipes for espresso coffee beverages.</li> </ul>
Writing skills to:	<ul style="list-style-type: none"> <li>• write orders and basic notes on customer preferences.</li> </ul>
Oral communication skills to:	<ul style="list-style-type: none"> <li>• use active listening and open and closed probe questioning to determine customer preferences and offer suitable products.</li> </ul>

- |                                    |   |
|------------------------------------|---|
| Numeracy skills to:                | <ul style="list-style-type: none"><li>visually estimate amounts of milk and make adjustments to doses of ground coffee.</li></ul>   |
| Problem-solving skills to:         | <ul style="list-style-type: none"><li>identify deficiencies in espresso extraction and make adjustments to ensure a quality product</li><li>monitor operational efficiency of espresso machine and adjust use during coffee beverage preparation.</li></ul> |
| Planning and organising skills to: | <ul style="list-style-type: none"><li>sequence the preparation of beverages and their components to efficiently serve customers.</li></ul>  |
| Technology skills to:              | <ul style="list-style-type: none"><li>use coffee grinders and espresso machines, identifying faults and maintenance issues as they arise.</li></ul>   |

## Unit Mapping Information

SITHFAB204 Prepare and serve espresso coffee

## Links

Companion Volume implementation guides are found in VETNet -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=68c40a93-e51d-4e0f-bc06-899dff092694>

# Assessment Requirements for SITHFAB005 Prepare and serve espresso coffee

## Modification History

Not applicable.

## Performance Evidence

Evidence of the ability to complete tasks outlined in elements and performance criteria of this unit in the context of the job role, and:

- prepare and present each of the following espresso-based coffee beverages on three different occasions within commercial timeframes:
  - caffe latte
  - cappuccino
  - espresso (short black)
  - flat white
  - long black
  - piccolo latte
  - mocha
  - ristretto
  - short and long macchiato
- monitor quality indicators for extraction as listed in the knowledge evidence during preparation of the above espresso coffee beverages and make adjustments to restore extraction to required standard
- present the above espresso coffee beverages and accompaniments demonstrating consistency and quality of:
  - appearance
  - aroma
  - body
  - crema on top of the espresso
  - flavour
  - taste
  - strength
  - volume
- use the correct equipment, ingredients and measures to prepare the above espresso coffee beverages.

## Knowledge Evidence

Demonstrated knowledge required to complete the tasks outlined in elements and performance criteria of this unit:

- major types and characteristics of espresso coffee beverages specified in the performance evidence
- different types of milk, their characteristics and uses for different types of coffee beverages
- characteristics of different types of beans, blends and roasts
- mise en place requirements for preparing coffee beverages
- methods and techniques for preparing and serving espresso coffee beverages:
  - grinding coffee beans
  - measuring dose by sight, electronically, manually and mechanically
  - tamping
  - extracting espresso
  - texturing milk
  - sequencing orders for the preparation of coffee beverages
- quality indicators for espresso coffee extraction:
  - changes in colour of crema
  - changes in flow texture
  - cake of used ground coffee
  - water pressure during extraction
- available options to meet specific customer preferences relating to:
  - accompaniments
  - blends
  - service-ware
  - strength
  - sweeteners
  - type of:
    - beans
    - milk
- factors relevant to quality of espresso coffee:
  - ambient humidity
  - consistency of used coffee grounds
  - crema on top of the espresso
  - quality and rate of espresso flow
  - steam pressure during foaming and steaming of milk
  - taste
- extraction rates for the different espresso coffee beverages specified in the performance evidence



- how and when adjustments are required to the following to ensure quality of espresso coffee:
  - dose
  - grind
  - tamping technique
  - water flow
  - water pressure
- organisational procedures and industry standards for:
  - service-ware used for espresso coffee beverage presentation
  - accompaniments used to enhance beverages
  - presentation of beverages:
    - latte art
- appropriate environmental conditions for storing coffee beans, ground coffee, milk and other ingredients to:
  - ensure food safety
  - optimise shelf life
- essential features and functions of different espresso machines and grinders used to prepare espresso coffee beverages:
  - sizes and types of filter baskets and tampers
  - purging the steam wand
  - flushing the group head
  - cleaning and maintenance methods and procedures
  - symptoms of faults in espresso machines and grinders
  - safe operational practices and dangers of working with steam
- basic maintenance and cleaning methods for espresso grinders, machines and equipment:
  - back flushing the machine
  - brushing out doser chamber
  - pouring hot water to clean drainage pipes
  - using correct and environmentally sound disposal methods for coffee making waste
  - washing drip trays
  - washing and drying:
    - bean hopper
    - group handle and filter basket
  - wiping down entire machine
  - wiping outside of steam wand and nozzle and purging inside with steam
- content of safety data sheets (SDS) for cleaning agents and chemicals, or workplace documents or diagrams that interpret the content of SDS.

## Assessment Conditions

Skills must be demonstrated in an operational food and beverage outlet. This can be:

- an industry workplace
- a simulated industry environment.

Assessment must ensure access to:

- fixtures and large equipment:
  - workstation with industry current commercial grade espresso machine and coffee grinders
  - bins or knock boxes for used coffee grounds
  - storage bins
- small equipment:
  - blind or blank filter basket
  - cleaning brushes
  - colour coded cleaning cloths
  - flat edge implement for levelling off dosed filter basket
  - measuring equipment:
    - stopwatch or timer
    - thermometer
  - milk foaming jugs
  - napkins
  - powder shakers
  - service trays
  - spoons and stirrers
  - straws
  - service-ware for different types of coffee beverages:
    - cups: espresso and standard
    - saucers
    - mugs
    - glasses
    - take-away coffee cups and lids
    - take-away cardboard trays
  - tamp mats
  - tampers
- stock:
  - commercial range of coffee beans, ground coffee and other ingredients and accompaniments
- organisational specifications:
  - equipment manufacturer instructions
  - cleaning and maintenance procedures for espresso coffee machines and grinders
  - commercial beverage menus

- organisational procedures and industry standards for presenting espresso coffee beverages
- price lists
- standard recipes for coffee beverages currently used by the hospitality industry
- SDS for cleaning chemicals or plain English workplace documents or diagrams that interpret the content of SDS
- industry-realistic ratio of staff to customers; these can be:
  - customers in an industry workplace during the assessment process; or
  - individuals who participate in role plays or simulated activities, set up for the purpose of assessment, in a simulated industry environment operated within a training organisation.

Assessors must satisfy the Standards for Registered Training Organisations' requirements for assessors; and:

- have worked in industry for at least three years where they have applied the skills and knowledge of this unit of competency.

## Links

Companion Volume implementation guides are found in VETNet -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=68c40a93-e51d-4e0f-bc06-899dff092694>

## SITHFAB012 Provide advice on Australian wines

### Modification History

Not applicable.

### Application

This unit describes the performance outcomes, skills and knowledge required to evaluate a range of Australian wines; provide advice to customers on their selection; and continuously extend personal product knowledge.

The unit applies to hospitality, winery, retail and wholesale organisations that sell Australian wines.

It applies to personnel who operate independently or with limited guidance from others and who have substantial specialist knowledge of Australian wines. This includes beverage sales consultants, winery sales staff, bar specialists, sommeliers, and senior bar and food and beverage attendants.

The sale and service of alcohol is subject to the provisions of Responsible Service of Alcohol (RSA) law in each state and territory of Australia. Skills and knowledge for compliance with this law are covered by the prerequisite unit SITHFAB002 Provide responsible service of alcohol.

### Pre-requisite Unit

SITHFAB002 Provide responsible service of alcohol

### Competency Field

Food and Beverage

### Unit Sector

Hospitality

### Elements and Performance Criteria

#### ELEMENTS

#### PERFORMANCE CRITERIA

Elements describe the essential outcomes.

1. Evaluate Australian wines.

Performance criteria describe the performance needed to demonstrate achievement of the element.

1.1. Identify and examine the characteristics of Australian wines from all major and emerging Australian wine regions using the full range of sensory evaluation techniques.

1.2. Review other information about viticulture and specific wine styles, regions and production methods to complement sensory evaluation process.

1.3. Develop informed opinions about Australian wines that support work as a specialist in wine.

2. Handle, store and monitor Australian wine products.

2.1. Store and cellar Australian wine according to particular requirements of different wines.

2.2. Monitor wine quality and recognise impaired quality based on in-depth knowledge of Australian wines.

2.3. Resolve issues with wine quality through appropriate corrective action.

2.4. Decant wines using techniques appropriate to the variety, style and vintage of wine.

3. Advise customers on Australian wines.

3.1. Provide accurate information and assistance on different Australian wine options.

3.2. Discuss and debate wine characteristics, origins and production methods, taking account of customer level of wine knowledge.

3.3. Take account of business considerations when providing advice and make adjustments accordingly.

3.4. Assist customers with wine selections according to taste, price preferences and other specific needs.

4. Extend and update knowledge of Australian wines.

4.1. Conduct formal and informal research to access current, accurate and relevant information about wines.

4.2. Identify customer taste trends based on customer contact and workplace interactions.

4.3. Source information on current and emerging beverage service trends and customer preferences.

4.4. Provide informed input about Australian wines to support organisational activities.

## Foundation Skills

Foundation skills essential to performance in this unit, but not explicit in the performance criteria are listed here, along with a brief context statement

**SKILLS****DESCRIPTION**

Reading skills to:	<ul style="list-style-type: none"><li>comprehend detailed product information, promotional material and reviews about Australian wines.</li></ul>
Writing skills to:	<ul style="list-style-type: none"><li>summarise notes, and record information in basic documents, information sheets and files.</li></ul>
Oral communication skills to:	<ul style="list-style-type: none"><li>discuss and debate different ideas and opinions about products.</li></ul>
Learning skills to:	<ul style="list-style-type: none"><li>review own knowledge of Australian wines and participate in activities that continuously update it.</li></ul>
Problem-solving skills to:	<ul style="list-style-type: none"><li>identify product faults and make judgments about appropriate remedial action.</li></ul>
Planning and organising skills to:	<ul style="list-style-type: none"><li>schedule regular checks on the storage of beverage products.</li></ul>
Self-management skills to:	<ul style="list-style-type: none"><li>take responsibility for sourcing and updating current and emerging product information.</li></ul>

**Unit Mapping Information**

SITHFAB305 Provide advice on Australian wines

**Links**

Companion Volume implementation guides are found in VETNet -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=68c40a93-e51d-4e0f-bc06-899dff092694>

# Assessment Requirements for SITHFAB012 Provide advice on Australian wines

## Modification History

Not applicable.

## Performance Evidence

Evidence of the ability to complete tasks outlined in elements and performance criteria of this unit in the context of the job role, and:

- discuss the characteristics of each of the following Australian wines with different customers on three different occasions:
  - red and white
  - blended wines
  - sparkling wines
  - ports
  - popular fortified wines
  - dessert wines
- demonstrate the correct application of each of the following sensory evaluation techniques to evaluate wines:
  - assessing balance of wine features on the palate
  - smell or nose appraisal
  - taste appraisal
  - visual appraisal
- provide current, accurate and relevant advice to each of the above customers on their selection to meet different taste and price preferences
- maintain and continuously extend personal product knowledge to enhance workplace activities.

## Knowledge Evidence

Demonstrated knowledge required to complete the tasks outlined in elements and performance criteria of this unit:

- full range of sensory evaluation techniques and their relevance to different types of wines:
  - assessing balance of wine features on the palate
  - smell or nose appraisal:
    - techniques for releasing aroma and bouquet
    - recognising 'off' odours
    - assessing intensity of aromas
    - describing smell characteristics

- assessing age
- taste appraisal:
  - techniques for releasing wine flavours (sucking in air, swirling wine over taste buds)
  - spitting techniques
  - recognising acidity, sweetness, weight or body, length, note, and wine faults
- visual appraisal:
  - wine swirling and glass handling
  - use of light and background
  - intensity and type of colour
  - clarity
  - identifying 'legs' or 'tears' to assess alcohol or glycerol content
- structure, history, trends and philosophies of the Australian wine industry and beverage service
- past, current and emerging trends in the Australian wine industry:
  - contemporary eating and drinking habits
  - cultural and ethnic influences
  - major events and festivals
  - media influence
  - seasonal and popular influences
- place of Australian wines in the international marketplace
- general understanding of the operation of wine shows and wine medal systems in an Australian context
- characteristics of major Australian wines from all major and emerging Australian wine regions:
  - red:
    - cabernet sauvignon
    - shiraz
    - pinot noir
    - merlot
    - grenache
  - white:
    - semillon
    - sauvignon blanc
    - riesling
    - chardonnay
    - pinot gris
  - blended wines
  - sparkling wines
  - port:
    - tawny



- vintage
- popular fortified wines:
  - apera
  - muscat
  - topaque
- dessert wines
- characteristics for each wine region:
  - different wine types and their styles
  - different production methods
  - label terminology and interpretation
  - major regional variations
  - principal grape varieties used in wine types
  - how Australian wine types and styles compare with imported wines
- broad overview of Australian geography and its impact on wine growing
- climatic classification of Australian grape-growing regions registered by the Geographical Indications Committee
- factors that influence character of wine
- impact of vineyard and viticultural techniques affecting taste and style of wine
- annual cycle of a general vineyard and regional specific cycles
- wine production methods and variations for white, red, sparkling and fortified wines:
  - basic wine production steps and variations for different wines
- new world approaches to wine making
- specific production techniques for:
  - white wine
  - red wine
  - sparkling wines
  - fortified wines
- factors that affect style and quality of wine:
  - climate
  - soil
  - grape variety
  - viticultural techniques
  - storage
  - vinification techniques
- key structural components in wine and their impact on taste:
  - alcohol
  - tannin
  - sugar
  - fruit flavour
- indicators of quality in wines, and analysis and diagnosis of wine faults or impairments:

- oxidation
- tartrates
- cloudiness
- cork faults
- presence of hydrogen sulphide
- organisational activities for which knowledge of Australian wines is required:
  - conducting product tastings and tours
  - providing product advice and selling beverages to customers
  - selecting or assisting with selection of products from suppliers
  - writing or providing input into:
    - beverage menus
    - beverage lists
  - food and beverage matching menus
- wine service techniques:
  - serving aged wines
  - processes for decanting wine
- storage and cellaring requirements for a range of wines and reasons for them:
  - amount of ultraviolet (UV) light
  - humidity
  - shelf life
  - stock rotation
  - temperature fluctuations
  - vibrations
- contributing factors of a successful wine list
- business considerations in the provision of information and advice on wines:
  - current stock
  - profitability requirements
  - range being promoted
  - stock availability
  - supplier arrangements
- overview of types of foods that match successfully with different wines
- formal and informal research methods to extend and update knowledge:
  - attending trade shows
  - attending wine tastings
  - joining associations and industry bodies
  - reading general and trade media and supplier information
  - reading wine reference books
  - talking to product suppliers, winemakers and vineyard managers
  - using the internet.

## Assessment Conditions

Skills must be demonstrated in an operational wine sales or service environment. This can be:

- an industry workplace
- a simulated industry environment.

Assessment must ensure access to:

- fixtures and large equipment:
  - bar service area
  - refrigerator
  - storage area for glassware and drinks
- stock:
  - wide commercial range of Australian wines
- organisational specifications:
  - information on wines currently listed in the Australian Wine and Brandy Corporation Register of Protected Names
  - price lists
  - promotional materials
  - product information, product reviews and information on production methods
  - promotional materials and details of presentation sessions
  - reference texts on Australian wines
  - organisational safety procedures
  - wine lists
- industry realistic ratios of staff to customers; these can be:
  - staff and customers in an industry workplace during the assessment process; or
  - individuals who participate in role plays or simulated activities, set up for the purpose of assessment, in a simulated industry environment operated within a training organisation.

Assessors must satisfy the Standards for Registered Training Organisations' requirements for assessors; and:

- have worked in industry for at least three years where they have applied the skills and knowledge of this unit of competency.

## Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=68c40a93-e51d-4e0f-bc06-899dff092694>

## **SITHFAB013 Provide advice on imported wines**

### **Modification History**

Not applicable.

### **Application**

This unit describes the performance outcomes, skills and knowledge required to evaluate a range of imported wines, provide advice to customers on their selection, and continuously extend personal product knowledge.

The unit applies to hospitality, winery, retail and wholesale organisations that sell imported wines.

It applies to personnel who operate independently or with limited guidance from others and who have substantial specialist knowledge of imported wines. This includes beverage sales consultants, winery sales staff, bar specialists, sommeliers and senior bar and restaurant personnel.

The sale and service of alcohol is subject to the provisions of Responsible Service of Alcohol (RSA) law in each state and territory of Australia. Skills and knowledge for compliance with this law are covered by the prerequisite unit SITHFAB002 Provide responsible service of alcohol.

### **Pre-requisite Unit**

SITHFAB002 Provide responsible service of alcohol

### **Competency Field**

Food and Beverage

### **Unit Sector**

Hospitality

### **Elements and Performance Criteria**

#### **ELEMENTS**

#### **PERFORMANCE CRITERIA**

Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Evaluate imported wines.	<ul style="list-style-type: none"><li>1.1. Identify and examine the characteristics of a range of imported wines using the full range of sensory evaluation techniques.</li><li>1.2. Review other information about viticulture and specific imported wine styles, regions and production methods to complement the sensory evaluation process.</li><li>1.3. Develop informed opinions about imported wine that support work as a specialist in wine.</li></ul>
2. Handle, store and monitor imported wine products.	<ul style="list-style-type: none"><li>2.1. Store and cellar imported wine according to particular requirements of different wines.</li><li>2.2. Monitor wine quality and recognise impaired quality based on in-depth knowledge of wines.</li><li>2.3. Resolve issues with wine quality through appropriate corrective action.</li><li>2.4. Decant wines using techniques appropriate to the variety, style and vintage of wine.</li></ul>
3. Advise customers on imported wines.	<ul style="list-style-type: none"><li>3.1. Provide accurate information and assistance about different imported wine options.</li><li>3.2. Discuss and debate wine characteristics, origins and production methods, taking account of customer level of wine knowledge.</li><li>3.3. Take account of business considerations when providing advice and make adjustments accordingly.</li><li>3.4. Assist customers with wine selections according to taste, price preferences and other specific needs.</li></ul>
4. Extend and update own knowledge of imported wines.	<ul style="list-style-type: none"><li>4.1. Conduct formal and informal research to access current, accurate and relevant information about imported wines.</li><li>4.2. Identify trends in customer tastes based on direct contact and workplace interaction.</li><li>4.3. Source information on current and emerging beverage service trends and customer preferences.</li><li>4.4. Provide informed input about imported wines to support organisational activities.</li></ul>

## Foundation Skills

Foundation skills essential to performance in this unit, but not explicit in the performance criteria are listed here, along with a brief context statement.

**SKILLS****DESCRIPTION**

Reading skills to:	<ul style="list-style-type: none"><li>comprehend detailed product information, promotional material and reviews about imported wines.</li></ul>
Writing skills to:	<ul style="list-style-type: none"><li>summarise notes, and record information in basic documents, information sheets and files.</li></ul>
Oral communication skills to:	<ul style="list-style-type: none"><li>discuss and debate different ideas and opinions about products.</li></ul>
Learning skills to:	<ul style="list-style-type: none"><li>review own knowledge of imported wines and participate in activities that continuously update it.</li></ul>
Problem-solving skills to:	<ul style="list-style-type: none"><li>identify product faults and make judgments about appropriate remedial action.</li></ul>
Planning and organising skills to:	<ul style="list-style-type: none"><li>schedule regular checks on the storage of beverage products.</li></ul>
Self-management skills to:	<ul style="list-style-type: none"><li>take responsibility for sourcing and updating current and emerging product information.</li></ul>

**Unit Mapping Information**

SITHFAB306 Provide advice on imported wines

**Links**

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=68c40a93-e51d-4e0f-bc06-899dff092694>

# Assessment Requirements for SITHFAB013 Provide advice on imported wines

## Modification History

Not applicable.

## Performance Evidence

Evidence of the ability to complete tasks outlined in elements and performance criteria of this unit in the context of the job role, and:

- discuss the characteristics of imported wines with different customers on three different occasions referencing wines from both old world and new world regions as listed in the knowledge evidence
- demonstrate the correct application of each of the following sensory evaluation techniques to evaluate wines:
  - assessing balance of wine features on the palate
  - smell or nose appraisal
  - taste appraisal
  - visual appraisal
- provide current, accurate and relevant advice to each of the above customers on their selection to meet different taste and price preferences
- maintain and continuously extend personal product knowledge to enhance organisational activities.

## Knowledge Evidence

Demonstrated knowledge required to complete the tasks outlined in elements and performance criteria of this unit:

- full range of sensory evaluation techniques and their relevance to different types of wines:
  - assessing balance of wine features on the palate
  - smell or nose appraisal:
    - techniques for releasing aroma and bouquet
    - recognising 'off' odours
    - assessing intensity of aromas
    - describing smell characteristics
    - assessing age
  - taste appraisal:
    - techniques for releasing wine flavours (sucking in air, swirling wine over taste buds)
    - spitting techniques

- recognising acidity, sweetness, weight or body, length, note, and wine faults
- visual appraisal:
  - wine swirling and glass handling
  - use of light and background
  - intensity and type of colour
  - clarity
  - identifying ‘legs’ or ‘tears’ to assess alcohol or glycerol content
- structure, history, trends and philosophies of:
  - international wine industry
  - major international wine producing nations
  - general understanding of the operation of wine shows and wine medal systems in an international context
- characteristics of major imported wines from:
  - old world regions:
    - France
    - Italy
    - Spain
    - other European countries
  - new world regions:
    - New Zealand
    - South Africa
    - South America
- characteristics for each wine region:
  - different wine types and their styles
  - different production methods
  - label terminology and interpretation
  - major regional variations
  - principal grape varieties used in wine types
  - a broad overview of wine production and naming laws
- past, current and emerging trends in the imported wine industry:
  - contemporary eating and drinking habits
  - cultural and ethnic influences
  - major events and festivals
  - media influence
- seasonal and popular influences
- broad overview of relevant geography and its impact on wine growing
- impact of the vineyard and viticultural techniques affecting the taste and style of wine
- annual cycle of a general vineyard and regional specific cycles
- wine production methods and variations for white, red, sparkling and fortified wines:
  - basic wine production steps and variations for different wines



- old world approaches to wine making and attitudes to new world wine making
- specific production techniques for:
  - white wine
  - red wine
  - sparkling wines
  - fortified wines
- factors that affect the style and quality of wine:
  - climate
  - soil
  - grape variety
  - viticultural techniques
  - storage
  - vinification techniques
- key structural components in wine and their impact on taste:
  - alcohol
  - tannin
  - sugar
  - fruit flavour
- indicators of quality in wines and analysis and diagnosis of wine faults or impairments:
  - oxidation
  - tartrates
  - cloudiness
  - cork faults
  - presence of hydrogen sulphide
- organisational activities for which knowledge of imported wines is required:
  - conducting product tastings and tours
  - providing product advice and selling beverages to customers
  - selecting or assisting with selection of products from suppliers
  - writing or providing input into:
    - beverage menus
    - beverage lists
  - food and beverage matching menus
- wine service techniques:
  - serving aged wines
  - processes for decanting wine
- storage and cellaring requirements for a range of wines and reasons for them:
  - amount of ultraviolet (UV) light
  - humidity
  - shelf life
  - stock rotation

- temperature fluctuations
- vibrations
- contributing factors of a successful wine list
- business considerations in the provision of information and advice on wines:
  - current stock
  - profitability requirements
  - range being promoted
  - stock availability
  - supplier arrangements
- overview of types of foods that match successfully with different wines
- formal and informal research methods to extend and update knowledge:
  - attending trade shows
  - attending wine tastings
  - joining associations and industry bodies
  - reading general and trade media and supplier information
  - reading wine reference books
  - talking to product suppliers, winemakers and vineyard managers
  - using the internet.

## Assessment Conditions

Skills must be demonstrated in an operational wine sales or service environment. This can be:

- an industry workplace
- a simulated industry environment.

Assessment must ensure access to:

- fixtures and large equipment:
  - bar service area
  - refrigerator
  - storage area for glassware and drinks
- stock:
  - wide commercial range of imported wines from the regions specified in the performance evidence
- organisational specifications:
  - price lists
  - promotional materials
  - product information, product reviews and information on production methods
  - promotional materials and details of presentation sessions
  - reference texts on imported wines
  - organisational safety procedures

- wine lists
- industry realistic ratios of staff to customers; these can be:
  - staff and customers in an industry workplace during the assessment process; or
  - individuals who participate in role plays or simulated activities, set up for the purpose of assessment, in a simulated industry environment operated within a training organisation.

Assessors must satisfy the Standards for Registered Training Organisations' requirements for assessors; and:

- have worked in industry for at least three years where they have applied the skills and knowledge of this unit of competency.

## Links

Companion Volume implementation guides are found in VETNet -

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## SITHPAT005 Produce petits fours

### Modification History

Not applicable.

### Application

This unit describes the performance outcomes, skills and knowledge required to produce, using standard recipes, specialised petits fours which require finishing, decoration and presentation of a high order. It requires the ability to select, prepare and portion ingredients and to use equipment and a range of cookery methods to make, fill, assemble and decorate specialised petits fours.

The unit applies to hospitality and catering organisations that produce and serve specialised patisserie products, including hotels, restaurants and patisseries.

It applies to patissiers who usually work under the guidance of more senior chefs.

No occupational licensing, certification or specific legislative requirements apply to this unit at the time of publication.

### Pre-requisite Unit

SITXFSA001 Use hygienic practices for food safety

### Competency Field

Patisserie

### Unit Sector

Hospitality

### Elements and Performance Criteria

#### ELEMENTS

#### PERFORMANCE CRITERIA

Elements describe the    Performance criteria describe the performance needed to demonstrate

- essential outcomes. achievement of the element.
1. Select ingredients.
    - 1.1. Confirm food production requirements from food preparation list and standard recipes.
    - 1.2. Calculate ingredient amounts according to requirements.
    - 1.3. Identify and select ingredients from stores according to recipe, quality, freshness and stock rotation requirements.
  2. Select, prepare and use equipment.
    - 2.1. Select type and size of equipment suitable to requirements.
    - 2.2. Safely assemble and ensure cleanliness of equipment before use.
    - 2.3. Use equipment safely and hygienically according to manufacturer instructions.
  3. Portion and prepare ingredients.
    - 3.1. Sort and assemble ingredients according to food production sequencing.
    - 3.2. Weigh and measure wet and dry ingredients according to the recipe and quantity of petits fours required.
    - 3.3. Minimise waste to maximise profitability of petits fours produced.
  4. Cook bases, fillings and coatings.
    - 4.1. Use cookery methods for bases, fillings and coatings to achieve desired product characteristics.
    - 4.2. Follow standard recipes and make *food quality adjustments* within scope of responsibility.
    - 4.3. Pipe a selection of small choux paste shapes.
    - 4.4. Prepare and blind bake sweet paste in small moulds or tins in a variety of shapes.
    - 4.5. Select baking conditions, required oven temperature and bake petit four bases.
    - 4.6. Cool bases in appropriate conditions to retain optimum freshness and product characteristics.
  5. Prepare iced petits fours.
    - 5.1. Cut sponges and bases into a variety of shapes.
    - 5.2. Fill and assemble petits fours according to standard recipe specifications.
    - 5.3. Prepare icing at the correct temperature.
    - 5.4. Ice petits fours with icing of a consistency that achieves required coating thickness and surface gloss.
    - 5.5. Apply icing to ensure a smooth and seamless finish.
    - 5.6. Design and use decorations that enhance flavour and appeal.
  6. Prepare fresh petits fours.
    - 6.1. Select pre-cooked small choux and sweet pastry shapes.
    - 6.2. Fill and assemble fresh petits fours according to standard recipe specifications.
    - 6.3. Use appropriate garnishes, glazes and finishes to enhance flavour and visual appeal.
  7. Prepare marzipan petits fours.
    - 7.1. Flavour and colour marzipan according to the recipe and soften with egg whites if required.

- |                                      |  |
|--------------------------------------|--|
|                                      | 7.2.Pipe or model marzipan by hand or shape with the aid of moulds to produce mini-size fruits.  |
|                                      | 7.3.Seal marzipan fruits with cocoa butter or food lacquer using applied heat to preserve desired eating characteristics.  |
| 8. Prepare caramelised petits fours. | 8.1.Select and coat fresh fruits or fruit segments with pale amber coloured caramel.   |
|                                      | 8.2.Sandwich dried fruits or nuts or fill with flavoured marzipan and coat with pale amber coloured caramel.   |
| 9. Present and store petits fours.   | 9.1.Visually evaluate petits fours and <b><i>adjust presentation</i></b> before displaying.  |
|                                      | 9.2.Use suitable receptacles to attractively present petits fours according to organisational standards.   |
|                                      | 9.3.Display petits fours in appropriate conditions to retain optimum freshness and product characteristics.  |
|                                      | 9.4.Store petits fours in appropriate <b><i>environmental conditions</i></b> .   |
|                                      | 9.5.Clean work area, and dispose of or store surplus and re-usable by-products according to organisational procedures, environmental considerations, and cost-reduction initiatives. |

## Foundation Skills

Foundation skills essential to performance in this unit, but not explicit in the performance criteria are listed here, along with a brief context statement.

SKILLS	DESCRIPTION
Reading skills to:	<ul style="list-style-type: none"> <li>locate information in food preparation lists and standard recipes to determine preparation requirements</li> <li>locate and read date code and stock rotation labels.</li> </ul>
Oral communication skills to:	<ul style="list-style-type: none"> <li>express opinion about petits fours, advising on most appropriate selection and ingredients.</li> </ul>
Writing skills to:	<ul style="list-style-type: none"> <li>write notes on recipe requirements and calculations.</li> </ul>
Numeracy skills to:	<ul style="list-style-type: none"> <li>determine cooking times and temperatures suitable to the type of petits fours being prepared.</li> </ul>
Problem-solving skills to:	<ul style="list-style-type: none"> <li>evaluate quality of ingredients and finished petits fours and make adjustments to ensure a quality product</li> <li>adjust taste, texture and appearance of food products according to identified deficiencies.</li> </ul>
Planning and organising skills to:	<ul style="list-style-type: none"> <li>efficiently sequence the stages of food preparation and production.</li> </ul>

Self-management skills • manage own speed, timing and productivity.  
to:

## Range of Conditions

Specifies different work environments and conditions that may affect performance. Essential operating conditions that may be present (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) are included.

Range is restricted to essential operating conditions and any other variables essential to the work environment.

***Food quality adjustments*** must involve consideration of factors relating to:

- ratio of wet to dry ingredients
- taste
- temperature
- texture.

***Adjusting presentation*** must involve consideration of:

- fillings, icings and decorations to maximise visual appeal:
  - balance
  - colour
  - contrast
- plating food for practicality of:
  - customer consumption
  - service
- wiping drips and spills.

***Environmental conditions*** must ensure appropriate:

- atmosphere
- humidity
- light
- packaging
- temperature
- use of containers
- ventilation.

## Unit Mapping Information

SITHPAT305 Produce petits fours

## Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=68c40a93-e51d-4e0f-bc06-899dff092694>



# Assessment Requirements for SITHPAT005 Produce petits fours

## Modification History

Not applicable.

## Performance Evidence

Evidence of the ability to complete tasks outlined in elements and performance criteria of this unit in the context of the job role, and:

- follow classical and contemporary standard recipes to safely and hygienically produce and decorate two different types of petits fours from each of the following main groups:
  - iced petits fours
  - fresh petits fours
  - marzipan petits fours
  - caramelised petits fours
- use each of the following flavoured fillings at least once when preparing the above petits fours:
  - cream
  - custard
  - ganache
- use each of the following coatings at least once when preparing the above petits fours:
  - caramel
  - cocoa butter
  - food lacquer
- use each of the following decorations at least once when decorating the above petits fours:
  - chocolate
  - fresh fruits
  - glazes
- use appropriate preparation and cookery methods from the list in the knowledge evidence when producing the above petits fours
- prepare above petits fours:
  - that are consistent in quality, size, shape and appearance
  - within commercial time and cost constraints and deadlines
  - reflecting required quantities to be produced
  - following procedures for portion control and food safety practices when handling and storing petits fours
  - responding to special customer requests and dietary requirements.

## Knowledge Evidence

Demonstrated knowledge required to complete the tasks outlined in elements and performance criteria of this unit:

- culinary terms and trade names for:
  - ingredients commonly used to produce petits fours
  - classical and contemporary petits fours specified in the performance evidence
- contents of stock date codes and rotation labels
- preparation and cookery methods used when producing petit four fillings, coatings and decorations listed in the performance evidence:
  - adding fats and liquids to dry ingredients
  - adding flavourings or colourings
  - blind baking sweet paste in small moulds
  - piping of choux pastry into small shapes
  - preparing and using pre-bake finishes and decorations
  - selecting and preparing appropriate cake tins and moulds
  - stirring and aerating to achieve required consistency and texture
  - using required amount of batter and paste according to desired characteristics of finished products
  - weighing or measuring and sifting dry ingredients
  - whisking, folding, piping and spreading
- expected product characteristics of the classical and contemporary petits fours specified in the performance evidence:
  - appearance
  - colour
  - consistency
  - crumb structure
  - moisture content
  - shape
  - size
  - taste
  - texture
- historical and cultural derivations of a variety of petits fours
- appropriate cooking temperatures and times for petits fours and fillings
- indicators of freshness and quality of stocked ingredients for petits fours
- mise en place requirements for producing petits fours and fillings
- common bases used for producing petits fours:
  - choux pastry
  - sponge
  - sweet pastry
- types of caramelised petits fours:

- filled
- fresh or dried fruit
- fresh or dried nuts
- unfilled
- types of marzipan based petits fours:
  - coloured
  - flavoured
  - modelled by hand
  - sealed with cocoa butter or food lacquer
  - shaped with the aid of moulds
- decoration techniques for petits fours:
  - cocoa mass screen techniques
  - cigarette paste decoration techniques
- appropriate environmental conditions for storing petits fours and re-usable by-products of their preparation to:
  - ensure food safety
  - optimise shelf life
- safe operational practices using essential functions and features of equipment used to produce petits fours.

## Assessment Conditions

Skills must be demonstrated in an operational pastry kitchen. This can be:

- an industry workplace
- a simulated industry environment, such as a training kitchen servicing customers.

Assessment must ensure access to:

- fixtures and large equipment:
  - commercial grade work benches (1.5 m/person)
  - commercial cake mixer and attachments:
    - dough hook
    - paddle
    - whisk
  - commercial refrigeration and freezer unit with shelving
  - double sinks with hot and cold water
  - gas or electric stove tops
  - industrial strength food processor
  - marble bench or slab
  - ovens with timer and trays:
    - convection

- deck
- microwave
- pastry/dough break
- proofer
- storage facilities:
  - shelving
  - trays
- small equipment:
  - beaters
  - bowl cutters
  - cake moulds
  - cutting boards
  - cutting implements for nuts and fruits
  - fluted and plain flan rings and cutter
  - food handler gloves
  - graters
  - knives:
    - large serrated cake knives
  - measurers:
    - metric calibrated measuring jugs
  - oven mitts
  - saccharometer
  - scales
  - service-ware:
    - platters, dishes, and bowls
    - serving tongs and trowels
  - sets of stainless steel bowls
  - silicon mats
  - small utensils:
    - flour and drum sieves
    - strainers and chinois
    - spatulas
    - whisks:
      - fine stainless steel wire
      - coarse stainless steel wire
  - spatulas
  - spoons:
    - wooden spoons
    - large plain and slotted metal spoons
  - storage containers and trays

- wire cooling racks
- specific equipment for producing petits fours:
  - chocolate thermometer
  - dipping forks
  - icing and decorating equipment:
    - chocolate spray gun
    - crimpers
    - decorative combs
    - fine icing sugar sieves
    - fine paint brushes
    - fine piping tubes
    - matfer-type stencils
    - piping bags and attachments
    - silk screens
  - presentation equipment:
    - cake boards
    - cake boxes
    - cake stands:
      - multi-tier
      - clear cover
    - cake wheels
    - doilies
    - mirrors
    - petit four cutters
    - petit four dipping racks
    - petit four moulds
    - petit four paper cases
    - platters
    - refrigerated cake display cases or towers
  - receptacles made from both edible and non-edible materials:
    - ceramic
    - chocolate
    - croquant
    - crystal
    - glass
    - metallic platters and trays
    - sugar lace
    - tulip paste
- diverse and comprehensive range of commercial ingredients for the petits fours specified in the performance evidence

- cleaning materials and equipment:
  - cleaning cloths
  - commercial cleaning and sanitising agents and chemicals for cleaning commercial kitchens, equipment and food storage areas
  - dustpans and brooms
  - garbage bins and bags
  - hand towel dispenser and hand towels
  - mops and buckets
  - separate hand basin and antiseptic liquid soap dispenser for hand washing
  - sponges, brushes and scourers
  - tea towels
- organisational specifications:
  - equipment manufacturer instructions
  - current commercial stock control procedures and documentation for ordering, monitoring and maintaining stock
  - food preparation lists
  - mise en place lists, menus, standard recipes, and recipes for special dietary requirements
  - ordering and docketing paperwork
  - food safety plans
  - guidelines relating to food disposal, storage and presentation requirements
  - safety data sheets (SDS) for cleaning agents and chemicals
- industry realistic ratios of kitchen staff to customers; these can be:
  - staff and customers in an industry workplace during the assessment process; or
  - individuals who participate in role plays or simulated activities, set up for the purpose of assessment, in a simulated industry environment operated within a training organisation.

Assessors must satisfy the Standards for Registered Training Organisations' requirements for assessors; and:

- have worked in industry for at least three years where they have applied the skills and knowledge of this unit of competency.

## Links

Companion Volume implementation guides are found in VETNet -

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## SITHPAT006 Produce desserts

### Modification History

Not applicable.

### Application

This unit describes the performance outcomes, skills and knowledge required to produce hot, cold and frozen desserts following standard and special dietary recipes. It requires the ability to select, prepare and portion ingredients and to use equipment and a range of cookery methods to make and present desserts.

The unit applies to hospitality and catering organisations that produce and serve desserts, including hotels, restaurants, clubs and patisseries.

It applies to patissiers who usually work under the guidance of more senior chefs.

No occupational licensing, certification or specific legislative requirements apply to this unit at the time of publication.

### Pre-requisite Unit

SITXFSA001 Use hygienic practices for food safety

### Competency Field

Patisserie

### Unit Sector

Hospitality

### Elements and Performance Criteria

#### ELEMENTS

Elements describe the essential outcomes.

#### PERFORMANCE CRITERIA

Performance criteria describe the performance needed to demonstrate achievement of the element.

1. Select ingredients.
  - 1.1. Confirm food production requirements from food preparation list and standard recipes.
  - 1.2. Calculate ingredient amounts according to requirements.
  - 1.3. Identify and select ingredients from stores according to recipe, quality, freshness and stock rotation requirements.
2. Select, prepare and use equipment.
  - 2.1. Select type and size of equipment suitable to requirements.
  - 2.2. Safely assemble and ensure cleanliness of equipment before use.
  - 2.3. Use equipment safely and hygienically according to manufacturer instructions.
3. Portion and prepare ingredients.
  - 3.1. Sort and assemble ingredients according to food production sequencing.
  - 3.2. Weigh and measure wet and dry ingredients according to the recipe and quantity of desserts required.
  - 3.3. Minimise waste to maximise profitability of desserts produced.
4. Produce desserts and sauces.
  - 4.1. Following standard recipes, produce desserts using cookery methods to achieve desired product characteristics.
  - 4.2. Follow special dietary recipes to produce desserts for those with special dietary requirements.
  - 4.3. Produce hot and cold sauces to desired consistency and flavour.
  - 4.4. Use thickening agents suitable for sweet sauces.
  - 4.5. Make **food quality adjustments** within scope of responsibility.
5. Portion, present and store desserts.
  - 5.1. Portion desserts to maximise yield and profitability of food production.
  - 5.2. Use accompaniments that balance and enhance taste and texture of desserts.
  - 5.3. Select garnishes and decorations with flavours and textures that complement desserts.
  - 5.4. Plate desserts, accompaniments and garnishes attractively, with artistic flair appropriate for the occasion and the item.
  - 5.5. Plate and decorate desserts for practicality of service and customer consumption.
  - 5.6. Visually evaluate desserts and **adjust presentation** before serving.
  - 5.7. Display desserts with appropriate sauces and garnishes.
  - 5.8. Store desserts in appropriate **environmental conditions**.
  - 5.9. Clean work area, and dispose of or store surplus and re-usable by-products according to organisational procedures, environmental considerations, and cost-reduction initiatives.



## Foundation Skills

Foundation skills essential to performance in this unit, but not explicit in the performance criteria are listed here, along with a brief context statement.

SKILLS	DESCRIPTION
Reading skills to:	<ul style="list-style-type: none"><li>locate information in food preparation lists and standard recipes to determine preparation requirements</li><li>locate and read date code and stock rotation labels.</li></ul>
Writing skills to:	<ul style="list-style-type: none"><li>write notes on recipe requirements and calculations.</li></ul>
Numeracy skills to:	<ul style="list-style-type: none"><li>calculate the number of portions.</li></ul>
Planning and organising skills to:	<ul style="list-style-type: none"><li>efficiently sequence the stages of food preparation and production.</li></ul>
Self-management skills to:	<ul style="list-style-type: none"><li>manage own speed, timing and productivity.</li></ul>

## Range of Conditions

Specifies different work environments and conditions that may affect performance. Essential operating conditions that may be present (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) are included.

Range is restricted to essential operating conditions and any other variables essential to the work environment.

<b><i>Food quality adjustments</i></b> must involve consideration of factors relating to:	<ul style="list-style-type: none"><li>ratio of wet to dry ingredients</li><li>taste</li><li>temperature</li><li>texture.</li></ul>
<b><i>Adjusting presentation</i></b> must involve consideration of:	<ul style="list-style-type: none"><li>accompaniments and garnishes to maximise visual appeal:<ul style="list-style-type: none"><li>balance</li><li>colour</li><li>contrast</li></ul></li><li>plating food for practicality of:<ul style="list-style-type: none"><li>customer consumption</li><li>service</li></ul></li><li>wiping drips and spills.</li></ul>
<b><i>Environmental conditions</i></b> must ensure appropriate:	<ul style="list-style-type: none"><li>atmosphere</li><li>humidity</li><li>light</li></ul>

- packaging
- temperature
- use of containers
- ventilation.

## Unit Mapping Information

SITHPAT306 Produce desserts

## Links

Companion Volume implementation guides are found in VETNet -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=68c40a93-e51d-4e0f-bc06-899dff092694>

# Assessment Requirements for SITHPAT006 Produce desserts

## Modification History

Not applicable.

## Performance Evidence

Evidence of the ability to complete tasks outlined in elements and performance criteria of this unit in the context of the job role, and:

- follow standard and special recipes to produce at least ten different desserts from the common desserts listed in the knowledge evidence
- ensure that at least two of the above desserts are produced to meet requirements of different special dietary requirements as listed in the knowledge evidence
- produce and use each of the following sauces at least once when preparing above range of desserts:
  - chocolate based sauces
  - custards and crèmes
  - flavoured butters and creams
  - fruit purées, sauces or coulis
  - fruit syrups
  - sabayon and zabaglione
  - sugar syrups
- use each of the garnishes and decorations listed in the knowledge evidence at least once when preparing above desserts
- use appropriate cookery methods from the list in the knowledge evidence when producing the above desserts
- present desserts, accompaniments and garnishes attractively and decoratively
- prepare above desserts:
  - that are consistent in quality, size, shape and appearance
  - within commercial time constraints
  - reflecting required quantities to be produced
  - following procedures for portion control and food safety practices when handling and storing desserts
  - responding to special customer requests and dietary requirements.

## Knowledge Evidence

Demonstrated knowledge required to complete the tasks outlined in elements and performance criteria of this unit:

- culinary terms and trade names for:

- variety of common desserts:
  - bavarois
  - crème brulee
  - crème caramel
  - crêpes
  - custards and creams
  - flans
  - fritters
  - ice-cream
  - meringues
  - mousse
  - parfait
  - pies
  - prepared fruit
  - puddings
  - sabayon
  - sorbet
  - soufflé
  - tarts
- ingredients commonly used to produce desserts
- substitute ingredients used to produce desserts for special dietary recipes:
  - gluten free flour
  - yeast-free flour
  - non-sugar sweeteners
- common special dietary requirements which must be considered when producing desserts:
  - fat free
  - low carbohydrate
  - low fat
  - low gluten
  - gluten free
  - low kilojoule
  - low sugar
  - sugar free
  - type one and two diabetic
  - vegan
- meaning of:
  - food allergy
  - food intolerance
- key health and legal consequences of failing to address special requirements
- contents of stock date codes and rotation labels

- cookery methods used when preparing desserts:
  - adding fats and liquids to dry ingredients
  - baking
  - chilling
  - flambé
  - freezing
  - poaching
  - reducing
  - selecting and preparing appropriate dessert moulds
  - steaming
  - stewing
  - stirring and aerating to achieve required consistency and texture
  - using required amount of batter according to desired characteristics of finished products
  - weighing or measuring and sifting dry ingredients
  - whisking, folding, piping and spreading
- expected product characteristics of the classical and contemporary desserts specified in the performance evidence:
  - appearance
  - colour
  - consistency
  - moisture content
  - shape
  - size
  - structure
  - taste
  - texture
- common garnishes and decorations used when preparing desserts:
  - coloured and flavoured sugar
  - fresh, preserved or crystallised fruits
  - jellies
  - shaved chocolate
  - sprinkled icing sugar
  - whole or crushed nuts
- appropriate cooking temperatures and times for desserts
- techniques to garnish, decorate, plate and present attractive desserts
- indicators of freshness and quality of stocked ingredients for desserts
- mise en place requirements for producing desserts
- appropriate environmental conditions for storing desserts and re-usable by products of their preparation to:

- ensure food safety
- optimise shelf life
- safe operational practices using essential functions and features of equipment used to produce desserts.

## Assessment Conditions

Skills must be demonstrated in an operational pastry kitchen. This can be:

- an industry workplace
- a simulated industry environment, such as a training kitchen servicing customers.

Assessment must ensure access to:

- fixtures and large equipment:
  - commercial grade work benches (1.5 m/person)
  - commercial cake mixer and attachments:
    - dough hook
    - paddle
    - whisk
  - commercial refrigeration and freezer unit with shelving
  - double sinks with hot and cold water
  - gas or electric stove tops
  - industrial strength food processor
  - ovens with timer and trays:
    - convection
    - deck
    - microwave
  - pastry/dough break
  - storage facilities:
    - shelving
    - trays
- small equipment:
  - acetate plastic sheets
  - beaters
  - blenders
  - bowl cutters
  - commercial mixers and attachments
  - cutting boards
  - cutting implements for nuts and fruits
  - decorating equipment:
    - blow torch

- chocolate spray gun
- fine icing sugar sieves
- fine piping tubes
- icing and cocoa powder dusters
- matfer-type stencils
- silk screens
- templates
- deep-fryer
- dessert service-ware:
  - dessert plates
  - dishes
  - glasses
  - bowl
  - coupes
  - cutlery
  - doilies
- fine and heavy gauge whisks and strainers
- fine icing sugar sieves
- fluted and plain flan rings
- graters
- gratin dishes
- ice makers
- ice cream machines
- juicers
- knives:
  - large serrated cake knives
- ladles in a variety of sizes
- measurers:
  - metric calibrated measuring jugs
- mixers
- moulds and dishes:
  - tartlet
  - darioles
- oven mitts
- pans:
  - crêpe
  - omelette
- presentation equipment:
  - cake boards
  - cake boxes

- cake stands
- doilies
- piping bags and attachments
- portion control markers
- ramekins
- range of saucepans and pots for small and large production
- salamander
- scales
- scoops
- serving tongs and trowels
- sets of stainless steel bowls
- skewers:
  - metal
  - bamboo
- soufflé cups
- spatulas
- spoons:
  - wooden spoons
  - large plain and slotted metal spoons
- steamer
- storage containers and trays
- sweets trolley or dessert buffet table
- vitamisers
- wire cooling racks
- diverse and comprehensive range of commercial ingredients for the desserts specified in the performance evidence
- cleaning materials and equipment:
  - cleaning cloths
  - commercial cleaning and sanitising agents and chemicals for cleaning commercial kitchens, equipment and food storage areas
  - dustpans and brooms
  - garbage bins and bags
  - hand towel dispenser and hand towels
  - mops and buckets
  - separate hand basin and antiseptic liquid soap dispenser for hand washing
  - sponges, brushes and scourers
  - tea towels
- organisational specifications:
  - equipment manufacturer instructions



- current commercial stock control procedures and documentation for ordering, monitoring and maintaining stock
- food preparation lists
- mise en place lists, menus, standard recipes, and recipes for special dietary requirements
- ordering and docketing paperwork
- food safety plans
- guidelines relating to food disposal, storage and presentation requirements
- safety data sheets (SDS) for cleaning agents and chemicals
- industry realistic ratios of kitchen staff to customers; these can be:
  - staff and customers in an industry workplace during the assessment process; or
  - individuals who participate in role plays or simulated activities, set up for the purpose of assessment, in a simulated industry environment operated within a training organisation.

Assessors must satisfy the Standards for Registered Training Organisations' requirements for assessors; and:

- have worked in industry for at least three years where they have applied the skills and knowledge of this unit of competency.

## Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=68c40a93-e51d-4e0f-bc06-899dff092694>

## SITHPAT008 Produce chocolate confectionery

### Modification History

Not applicable.

### Application

This unit describes the performance outcomes, skills and knowledge required to temper couverture (pure coating chocolate) to produce individual chocolates. It requires the ability to select, prepare and portion ingredients and to use equipment and a range of cookery methods to mould and fill individual chocolates with hard or soft fillings and centres.

The unit applies to hospitality and catering organisations which produce, display and serve specialist patisserie products, including hotels, restaurants, patisseries and chocolatiers.

The preparation and moulding of individual chocolates is a high order technical skill used by experienced patissiers who operate independently or with limited guidance from others.

No occupational licensing, certification or specific legislative requirements apply to this unit at the time of publication.

### Pre-requisite Unit

SITXFSA001 Use hygienic practices for food safety

### Competency Field

Patisserie

### Unit Sector

Hospitality

### Elements and Performance Criteria

#### ELEMENTS

#### PERFORMANCE CRITERIA

Elements describe the    Performance criteria describe the performance needed to demonstrate

- essential outcomes. achievement of the element.
1. Select ingredients.
    - 1.1. Confirm food production requirements from food preparation list and standard recipes.
    - 1.2. Calculate ingredient amounts according to requirements.
    - 1.3. Identify and select ingredients from stores according to recipe, quality, freshness and stock rotation requirements.
  2. Select, prepare and use equipment.
    - 2.1. Select type and size of equipment suitable to requirements.
    - 2.2. Safely assemble and ensure cleanliness of equipment before use.
    - 2.3. Use equipment safely and hygienically according to manufacturer instructions.
    - 2.4. **Protect** polished chocolate moulds from contamination.
    - 2.5. Keep chocolate moulds at an appropriate and constant temperature.
  3. Portion and prepare ingredients.
    - 3.1. Sort and assemble ingredients for chocolate confectionery according to food production sequencing.
    - 3.2. Weigh and measure wet and dry ingredients according to the recipe and quantity of chocolates required.
    - 3.3. Minimise waste to maximise profitability of chocolates produced.
  4. Temper couverture.
    - 4.1. Use tempering methods and appropriate temperatures to melt and temper couverture.
    - 4.2. Manipulate couverture to the correct viscosity and desired flow properties to achieve desired colour, gloss, sheen and snap upon solidification.
    - 4.3. Control the temperature to retain workable consistency.
  5. Prepare centres and fillings.
    - 5.1. Use cookery methods for centres and fillings to achieve full flavoured, interesting and natural characteristics.
    - 5.2. Manipulate ingredients at correct temperature to achieve the correct viscosity and consistency.
    - 5.3. Follow standard recipes and make **food quality adjustments** within scope of responsibility.
    - 5.4. Prepare centres of precisely uniform shapes and sizes.
  6. Make moulded chocolates.
    - 6.1. Select tempered couverture to match fillings.
    - 6.2. Set tempered couverture in moulds to achieve even and appropriate thickness free from marks or air bubbles.
    - 6.3. Insert fillings to a level surface and allow space for seal.
    - 6.4. Seal with a layer of chocolate of appropriate thickness.
    - 6.5. Cool, de mould chocolates and handle carefully to retain a glossy surface.
  7. Coat chocolate centres.
    - 7.1. Select tempered couverture to match centres.
    - 7.2. Bring centres to be coated to the correct temperature.
    - 7.3. Use appropriate methods to coat centres to achieve an even and

appropriate thickness with a uniform quality finish.

- |  |   |
|--|---|
| 8. Decorate, present and store chocolates. | <p>8.1. Decorate chocolates attractively, according to standard recipes, using designs suited to the product.</p> <p>8.2. Use suitable service-ware to attractively present chocolates according to organisational standards.</p> <p>8.3. Display chocolates in appropriate conditions to retain optimum freshness.</p> <p>8.4. Store chocolates in appropriate <i>environmental conditions</i>.</p> <p>8.5. Clean work area, and dispose of or store surplus and re-usable by-products according to organisational procedures, environmental considerations, and cost-reduction initiatives.</p> |
|--|---|

## Foundation Skills

Foundation skills essential to performance in this unit, but not explicit in the performance criteria are listed here, along with a brief context statement.

SKILLS	DESCRIPTION
Reading skills to:	<ul style="list-style-type: none"> <li>locate information in food preparation lists and standard recipes to determine preparation requirements</li> <li>locate and read date code and stock rotation labels.</li> </ul>
Writing skills to:	<ul style="list-style-type: none"> <li>record clear sequenced instructions for new recipes, specifying ingredient quantities.</li> </ul>
Numeracy skills to:	<ul style="list-style-type: none"> <li>determine tempering times and temperatures.</li> </ul>
Problem-solving skills to:	<ul style="list-style-type: none"> <li>evaluate quality of ingredients and finished chocolates and make adjustments to ensure a quality product</li> <li>adjust taste, texture and appearance of food products according to identified deficiencies.</li> </ul>
Planning and organising skills to:	<ul style="list-style-type: none"> <li>efficiently sequence the stages of food preparation and production.</li> </ul>
Self-management skills to:	<ul style="list-style-type: none"> <li>manage own speed, timing and productivity.</li> </ul>

## Range of Conditions

Specifies different work environments and conditions that may affect performance. Essential operating conditions that may be present (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) are included.

Range is restricted to essential operating conditions and any other variables essential to the work environment.

***Protecting*** mould from contamination must involve:

- ensuring that the polished surface is:
  - clean, polished and free of dust or residue
  - untouched by bare fingers
- untouched by objects that may dull, scratch or damage it.

***Food quality adjustments*** must involve consideration of factors relating to:

- ratio of wet to dry ingredients
- taste
- temperature
- texture.

***Environmental conditions*** must ensure appropriate:

- atmosphere
- humidity
- light
- packaging
- temperature
- use of containers
- ventilation.

## Unit Mapping Information

SITHPAT402 Produce chocolate confectionery

## Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=68c40a93-e51d-4e0f-bc06-899dff092694>

# Assessment Requirements for SITHPAT008 Produce chocolate confectionery

## Modification History

Not applicable.

## Performance Evidence

Evidence of the ability to complete tasks outlined in elements and performance criteria of this unit in the context of the job role, and:

- prepare individual chocolates from three different types listed in the knowledge evidence with each of the following:
  - hard centres
  - soft centres
  - fillings
- use at least six different centres or fillings listed in the knowledge evidence when producing above chocolates
- use at least one of the tempering methods for couverture when producing above chocolates
- produce above individual chocolates in commercial quantities:
  - that are consistent in quality, size, shape and appearance
  - within commercial time constraints
  - following procedures for portion control and food safety practices when handling and storing chocolate ingredients and chocolates
  - responding to special customer requests and dietary requirements.

## Knowledge Evidence

Demonstrated knowledge required to complete the tasks outlined in elements and performance criteria of this unit:

- culinary terms and trade names for:
  - ingredients commonly used to produce chocolate confectionery
  - classical and contemporary individual chocolates specified above in the performance evidence
- contents of stock date codes and rotation labels
- types of chocolates:
  - cut or dressed
  - hand coated
  - machine enrobed
  - made with prepared hollow shells

- moulded
- classical and contemporary centres and fillings used when producing chocolates:
  - caramel
  - croquant
  - flavoured fondant
  - ganache
  - jellies
  - liqueurs
  - marzipan
  - nougat
  - nuts and fruits
- historical and cultural derivations of a variety of chocolates
- indicators of freshness and quality of stocked ingredients for chocolates
- mise en place requirements for producing chocolate confectionery
- tempering methods for couverture:
  - controlling the formation of seed crystals
  - tabling method
  - use of heated water jackets
  - use of microwave
  - vaccination or addition method
- appropriate temperatures to melt and temper couverture
- properties of tempered couverture:
  - flow properties
  - setting properties
  - viscosity
- expected product characteristics of solidified couverture specified in the performance evidence:
  - colour
  - gloss
  - sheen
  - snap
- methods to coat centres:
  - hand coating
  - hand dipping
  - machine enrobed
- complementary tastes and textures of dark, milk and white couverture for fillings and centres
- decoration techniques for individual chocolates
- appropriate environmental conditions for storing ingredients and individual chocolates to:
  - ensure food safety

- optimise shelf life
- safe operational practices using essential functions and features of equipment used to:
  - produce chocolate confectionery
  - protect polished chocolate moulds from contamination and damage.

## Assessment Conditions

Skills must be demonstrated in an operational pastry kitchen. This can be:

- an industry workplace
- a simulated industry environment, such as a training kitchen servicing customers.

Assessment must ensure access to:

- fixtures and large equipment:
  - commercial grade work benches (1.5 m/person)
  - commercial refrigeration and freezer unit with shelving
  - double sinks with hot and cold water
  - gas or electric stove tops
  - industrial strength food processor
  - marble bench or slab
  - microwave
  - proofer
  - storage facilities:
    - shelving
    - trays
  - warming area
- small equipment:
  - acetate plastic sheets, baking sheets/paper, parchment paper and silicon paper
  - beaters
  - brushes
  - bowl cutters
  - cutting implements for nuts and fruits
  - cutting boards
  - food handler gloves
  - graters
  - knives:
    - large serrated cake knives
  - measurers:
    - metric calibrated measuring jugs
  - mixers



- pastry brushes
- pastry cutters and shapes
- piping bags and attachments
- range of presentation equipment:
  - doilies
  - mirrors
  - platters
- range of service-ware
- range of saucepans and pots for small and large production
- saccharometer
- scales (1 gram increments)
- sets of stainless steel bowls
- spoons:
  - wooden spoons
  - large plain and slotted metal spoons
- storage containers and trays
- whisks:
  - fine stainless steel wire
  - coarse stainless steel wire
- diverse and comprehensive range of commercial ingredients for the chocolate confectionery specified in the performance evidence
- cleaning materials and equipment:
  - cleaning cloths
  - commercial cleaning and sanitising agents and chemicals for cleaning commercial kitchens, equipment and food storage areas
  - dustpans and brooms
  - garbage bins and bags
  - hand towel dispenser and hand towels
  - mops and buckets
  - separate hand basin and antiseptic liquid soap dispenser for hand washing
  - sponges, brushes and scourers
  - tea towels
- organisational specifications:
  - equipment manufacturer instructions
  - current commercial stock control procedures and documentation for ordering, monitoring and maintaining stock
  - food preparation lists
  - mise en place lists, standard recipes, and recipes for special dietary requirements
  - ordering and docketing paperwork
  - food safety plans

- guidelines relating to food disposal, storage and presentation requirements
- safety data sheets (SDS) for cleaning agents and chemicals
- industry realistic ratios of kitchen staff to customers; these can be:
  - staff and customers in an industry workplace during the assessment process; or
  - individuals who participate in role plays or simulated activities, set up for the purpose of assessment, in a simulated industry environment operated within a training organisation.

Assessors must satisfy the Standards for Registered Training Organisations' requirements for assessors; and:

- have worked in industry for at least three years where they have applied the skills and knowledge of this unit of competency.

## Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=68c40a93-e51d-4e0f-bc06-899dff092694>

## SITXCCS003 Interact with customers

### Modification History

Not applicable.

### Application

This unit describes the performance outcomes, skills and knowledge required to deliver fundamental customer service to both internal and external customers. It requires the ability to greet and serve customers, and respond to a range of basic customer service enquiries, including routine customer problems.

The unit applies to frontline service personnel who operate under close supervision and with guidance from others. They provide routine customer service and would not be expected to respond to complex customer requests or complaints.

The unit applies to individuals working in a range of tourism, travel, hospitality and events contexts.

No occupational licensing, certification or specific legislative requirements apply to this unit at the time of publication.

### Pre-requisite Unit

Nil

### Competency Field

Client and Customer Service

### Unit Sector

Cross-Sector

### Elements and Performance Criteria

#### ELEMENTS

Elements describe the essential outcomes.

#### PERFORMANCE CRITERIA

Performance criteria describe the performance needed to demonstrate achievement of the element.

- |  |   |
|--|---|
| 1. Greet and serve customers.            | 1.1. Prioritise customers ahead of other workplace duties.<br>1.2. Greet customers according to organisational customer service standards.<br>1.3. <b><i>Communicate with customers</i></b> in a clear and professional manner.<br>1.4. Explain and match products and services to customer needs.  |
| 2. Work with others to deliver service.  | 2.1. Identify personal limitations in serving the needs of customers and seek assistance from <b><i>others</i></b> where appropriate.<br>2.2. Follow directions of supervisors and managers to deliver quality service.<br>2.3. Resolve routine customer problems according to own level of responsibility and organisational policy.<br>2.4. Escalate other service issues to a higher level staff member for action in line with organisational procedures. |
| 3. Provide feedback on customer service. | 3.1. Report service issues and customer problems as they arise.<br>3.2. Provide customer feedback to relevant supervisors or managers.  |

## Foundation Skills

Foundation skills essential to performance in this unit, but not explicit in the performance criteria are listed here, along with a brief context statement.

SKILLS	DESCRIPTION
Reading skills to:	<ul style="list-style-type: none"> <li>interpret sometimes detailed procedures documents.</li> </ul>
Writing skills to:	<ul style="list-style-type: none"> <li>record simple notes and basic information.</li> </ul>
Oral communication skills to:	<ul style="list-style-type: none"> <li>ask questions and actively listen to customers to determine their needs</li> <li>discuss causes of customer problems with colleagues and supervisors in a professional manner.</li> </ul>
Problem-solving skills to:	<ul style="list-style-type: none"> <li>recognise customer problems and resolve or refer service issues.</li> </ul>
Initiative and enterprise skills to:	<ul style="list-style-type: none"> <li>recognise delays and deficiencies in customer service and rectify to customer satisfaction in line with own level of responsibility.</li> </ul>

## Range of Conditions

Specifies different work environments and conditions that may affect performance. Essential operating conditions that may be present (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) are included.

Range is restricted to essential operating conditions and any other variables essential to the work environment.

- Ways to *communicate with customers* must include:
- communicating:
    - by telephone
    - electronically
    - face-to-face
  - showing interest in customer needs and maintaining a welcoming customer environment during service delivery through the use of:
    - appropriate voice tonality and volume
    - basic gestures
    - product information sheets.
- Others* must include:
- colleagues
  - managers
  - supervisors.

## Unit Mapping Information

SITXCCS202 Interact with customers

## Links

Companion Volume implementation guides are found in VETNet -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=68c40a93-e51d-4e0f-bc06-899dff092694>

# Assessment Requirements for SITXCCS003 Interact with customers

## Modification History

Not applicable.

## Performance Evidence

Evidence of the ability to complete tasks outlined in elements and performance criteria of this unit in the context of the job role, and:

- identify customer requirements and provide effective customer service to two different internal and two different external customers to meet requirements
- interact with above customers in line with organisational customer service standards and within designated organisational response times
- demonstrate procedures to respond to three different customer problems according to organisational policies and procedures
- identify situations where problems are beyond own level of responsibility, and process to escalate in line with organisational policies and procedures
- seek informal feedback from customers on above activities.

## Knowledge Evidence

Demonstrated knowledge required to complete the tasks outlined in elements and performance criteria of this unit:

- importance of the customer in the service industries
- customer service standards expected in the service industries
- profiles of different types of customers:
  - external
  - internal
  - new
  - regular or repeat
  - visitors
- value and role of customer feedback in improving service delivery
- presentation standards for:
  - customer environment
  - customer service personnel
  - documents and promotional materials
- customer service policies and procedures:
  - application of booking or cancellation fees
  - response times for acknowledging and greeting customers

- response times for delivering products and services
- customer service policies for resolving routine customer problems
- policies regarding product pricing and quality
- processing refunds and exchanges
- empowerment of different levels of personnel to resolve complaints, disputes, service issues and customer compensation
- policies for escalating and reporting service issues and customer problems
- procedures for responding to routine customer problems:
  - incorrect pricing of products and services
  - delays or errors in providing products or services
  - misunderstanding customer requests.

## Assessment Conditions

Skills must be demonstrated in an operational business environment where customers are served. This can be:

- an industry workplace
- a simulated industry environment.

Assessment must ensure access to:

- organisational policies and procedures relating to:
  - customer service standards
  - designated response times
  - presentation standards
  - dealing with customer problems
  - recording and reporting customer feedback
- internal and external customers with whom the individual can interact; these can be:
  - customers in an industry workplace during the assessment process; or
  - individuals who participate in role plays or simulated activities, set up for the purpose of assessment, in a simulated industry environment operated within a training organisation.

Assessors must satisfy the Standards for Registered Training Organisations' requirements for assessors.

## Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=68c40a93-e51d-4e0f-bc06-899dff092694>

# SITXFSA001 Use hygienic practices for food safety

## Modification History

Not applicable.

## Application

This unit describes the performance outcomes, skills and knowledge required to use personal hygiene practices to prevent contamination of food that might cause food-borne illnesses. It requires the ability to follow predetermined organisational procedures and to identify and control food hazards.

The unit applies to all organisations with permanent or temporary kitchen premises or smaller food preparation or bar areas.

This includes restaurants, cafes, clubs, hotels, and bars; tour operators; attractions; function, event, exhibition and conference catering; educational institutions; aged care facilities; correctional centres; hospitals; defence forces; cafeterias, kiosks, canteens and fast food outlets; residential catering; in-flight and other transport catering.

It applies to food handlers who directly handle food or food contact surfaces such as cutlery, plates and bowls during the course of their daily work activities. This includes cooks, chefs, caterers, kitchen stewards, kitchen hands, bar, and food and beverage attendants, and sometimes room attendants and front office staff.

Food handlers must comply with the requirements contained within the Australia New Zealand Food Standards Code.

In some States and Territories businesses are required to designate a food safety supervisor who is required to be certified as competent in this unit through a registered training organisation.

Food safety legislative and knowledge requirements may differ across borders. Those developing training to support this unit must consult the relevant state or territory food safety authority to determine any accreditation arrangements for courses, trainers and assessors.

## Pre-requisite Unit

Nil



## Competency Field

Food Safety

## Unit Sector

Cross-Sector

## Elements and Performance Criteria

### ELEMENTS

Elements describe the essential outcomes.

1. Follow hygiene procedures and identify food hazards.
2. Report any personal health issues.
3. Prevent food contamination.
4. Prevent cross-contamination by washing hands.

### PERFORMANCE CRITERIA

Performance criteria describe the performance needed to demonstrate achievement of the element.

- 1.1.Follow organisational hygiene procedures.
- 1.2.Report unsafe practices that breach hygiene procedures promptly.
- 1.3.Identify food hazards that may affect the health and safety of customers, colleagues and self.
- 1.4.Remove or minimise the hygiene hazard and report as appropriate for follow-up.
- 2.1.Report personal health issues likely to cause a hygiene risk.
- 2.2.Report incidents of food contamination resulting from personal health issues.
- 2.3.Cease participation in food handling activities where own health issue may cause food contamination.
- 3.1.Maintain clean clothes, wear required personal protective clothing, and only use organisation-approved bandages and dressings.
- 3.2.Prevent food contamination from clothing and other items worn.
- 3.3.Prevent unnecessary direct contact with ready to eat food.
- 3.4.Ensure hygienic personal contact with food and food contact surfaces.
- 3.5.Use hygienic cleaning practices that prevent food-borne illnesses.
- 4.1.Wash hands at appropriate times and follow hand washing procedures consistently.
- 4.2.Wash hands using appropriate facilities.

## Foundation Skills

Foundation skills essential to performance in this unit, but not explicit in the performance criteria are listed here, along with a brief context statement.

SKILLS	DESCRIPTION
Reading skills to:	<ul style="list-style-type: none"><li>• interpret organisational documents or diagrams relating to:<ul style="list-style-type: none"><li>• organisational food safety programs</li><li>• hygiene and food safety procedures</li><li>• hazard analysis and critical control points (HACCP) practices.</li></ul></li></ul>
Oral communication skills to:	<ul style="list-style-type: none"><li>• report hygiene hazards and non-compliant organisational practices accurately.</li></ul>

## Unit Mapping Information

SITXFSA101 Use hygienic practices for food safety

## Links

Companion Volume implementation guides are found in VETNet -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=68c40a93-e51d-4e0f-bc06-899dff092694>

# Assessment Requirements for SITXFSA001 Use hygienic practices for food safety

## Modification History

Not applicable.

## Performance Evidence

Evidence of the ability to complete tasks outlined in elements and performance criteria of this unit in the context of the job role, and:

- demonstrate use of safe food handling practices in food handling work functions in line with organisational hygiene procedures on at least three occasions
- demonstrate procedures to:
  - identify food hazards
  - report unsafe practices
  - report incidents of food contamination.

## Knowledge Evidence

Demonstrated knowledge required to complete the tasks outlined in elements and performance criteria of this unit:

- basic aspects of commonwealth, state or territory food safety laws, standards and codes as follows:
  - meaning of contaminant, contamination and potentially hazardous foods as defined by the Australia New Zealand Food Standards Code
  - employee and employer responsibility to participate in hygienic practices
  - reasons for food safety programs and what they must contain
  - role of local government regulators
  - ramifications of failure to observe food safety law and organisational policies and procedures
- health issues likely to cause a hygiene risk relevant to food safety:
  - airborne diseases
  - food-borne diseases
  - infectious diseases
- hygiene actions that must be adhered to in order to avoid food-borne illnesses
- hand washing practices:
  - before commencing or recommencing work with food
  - immediately after:
    - handling raw food
    - smoking, coughing, sneezing or blowing the nose

- eating or drinking
- touching the hair, scalp or any wound
- using the toilet
- basic aspects of hazard analysis and critical control points (HACCP) method of controlling food safety
- specific industry sector and organisation:
  - major causes of food contamination and food-borne illnesses
  - sources and effects of microbiological contamination of food
  - workplace hygiene hazards when handling food and food contact surfaces
  - basic content of organisational food safety programs
  - contents of organisational hygiene and food safety procedures
  - hygienic work practices for individual job roles and responsibilities.

## Assessment Conditions

Skills must be demonstrated in an operational food preparation area. This can be:

- an industry workplace
- a simulated industry environment.

Assessment must ensure access to:

- fixtures:
  - work benches
  - refrigeration unit
  - sink
  - storage facilities
- small equipment:
  - assorted pots and pans
  - containers for hot and cold storage
  - crockery
  - cutlery
  - cutting boards
  - food handler gloves
  - glassware
  - knives
  - packaging materials
  - receptacles for presentation and display purposes
  - small utensils:
    - tongs
    - serving utensils
- appropriate facilities for handwashing:

- designated hand washing sink
- antiseptic liquid soap
- single use towels
- warm running water
- food ingredients and ready to eat food items
- current plain English regulatory documents distributed by the commonwealth, state, territory or local government food safety authority
- Australia New Zealand Food Standards Code
- current commercial food safety programs, policies and procedures used for managing food safety.

Assessors must satisfy the Standards for Registered Training Organisations' requirements for assessors.

## Links

Companion Volume implementation guides are found in VETNet -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=68c40a93-e51d-4e0f-bc06-899dff092694>

## SITXHRM001 Coach others in job skills

### Modification History

Not applicable.

### Application

This unit describes the performance outcomes, skills and knowledge required to provide on-the-job coaching to colleagues. It requires the ability to explain and demonstrate specific skills, knowledge and procedures and monitor the progress of colleagues until they are able to operate independently of the coach.

The unit applies to experienced operational personnel and to supervisors and managers who informally train other people in new workplace skills and procedures.

It applies to all tourism, hospitality and event sectors.

No occupational licensing, certification or specific legislative requirements apply to this unit at the time of publication.

### Pre-requisite Unit

Nil

### Competency Field

Human Resource Management

### Unit Sector

Cross-Sector

### Elements and Performance Criteria

#### ELEMENTS

Elements describe the essential outcomes.

#### PERFORMANCE CRITERIA

Performance criteria describe the performance needed to demonstrate achievement of the element.

1. Prepare for on-the-job coaching.
  - 1.1. Identify need for coaching based on a range of factors.
  - 1.2. Identify specific coaching needs through discussion with colleague and organise coaching sessions.
2. Coach colleagues on-the-job.
  - 2.1. Explain overall purpose of coaching to colleague.
  - 2.2. Explain and demonstrate specific skills.
  - 2.3. Communicate required knowledge and check colleague understanding.
  - 2.4. Advise organisational procedures for completing workplace tasks.
  - 2.5. Provide colleague with opportunity to practise skill and ask questions.
  - 2.6. Provide feedback in constructive and supportive manner.
3. Follow-up coaching.
  - 3.1. Monitor progress of new workplace skills and provide supportive assistance.
  - 3.2. Report progress to the appropriate person.
  - 3.3. Identify performance problems or difficulties with coaching and rectify or refer to appropriate person for follow-up.

## Foundation Skills

Foundation skills essential to performance in this unit, but not explicit in the performance criteria are listed here, along with a brief context statement.

SKILLS	DESCRIPTION
Reading skills to:	<ul style="list-style-type: none"><li>• review workplace documentation completed by colleague.</li></ul>
Oral communication skills to:	<ul style="list-style-type: none"><li>• use active listening and open questioning techniques to confirm understanding.</li></ul>
Numeracy skills to:	<ul style="list-style-type: none"><li>• calculate adequate time required for coaching and for the colleague to complete required tasks.</li></ul>
Planning and organising skills to:	<ul style="list-style-type: none"><li>• complete own work tasks within designated timeframes and simultaneously coach others in their job skills.</li></ul>

## Unit Mapping Information

SITXHRM301 Coach others in job skills

## Links

Companion Volume implementation guides are found in VETNet -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=68c40a93-e51d-4e0f-bc06-899dff092694>



# Assessment Requirements for SITXHRM001 Coach others in job skills

## Modification History

Not applicable.

## Performance Evidence

Evidence of the ability to complete tasks outlined in elements and performance criteria of this unit in the context of the job role, and:

- provide effective on-the job coaching to four different colleagues
- address identified performance problems or difficulties experienced by colleagues in each of the above coaching sessions and rectify or refer as appropriate
- evaluate colleagues' performance and provide constructive feedback as part of above coaching sessions
- demonstrate the following during each of the above coaching activities:
  - clear communication and demonstration of the organisational tasks required of the colleague
  - completion of training within commercial time constraints
  - application of the key principles of training.

## Knowledge Evidence

Demonstrated knowledge required to complete the tasks outlined in elements and performance criteria of this unit:

- communication techniques suitable to a workplace training context
- objectives and scope of the coaching
- factors which impact need for coaching:
  - direction from colleagues
  - own observation and workplace experience
  - request for coaching from colleagues to be coached
- key principles of training:
  - explanation
  - demonstration
  - review
  - listening to trainee explanation
  - observing and evaluating trainee demonstration
  - providing feedback
- legislative work health and safety and hygiene requirements
- possible causes of performance problems or difficulties:

- breakdown in communication
- inappropriate circumstances for coaching
- insufficient opportunity to practice
- language or cultural barriers
- shyness or lack of confidence.

## Assessment Conditions

Skills must be demonstrated in an operational environment with colleagues requiring coaching. This can be:

- an industry workplace
- a simulated industry environment.

Assessment must ensure access to:

- work tasks in which to coach others
- colleagues in need of training; these can be:
  - colleagues in an industry workplace who are assisted by the individual during the assessment process; or
  - individuals who participate in role plays or simulated activities, set up for the purpose of assessment, in a simulated industry environment operated within a training organisation.

Assessors must satisfy the Standards for Registered Training Organisations' requirements for assessors.

## Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=68c40a93-e51d-4e0f-bc06-899dff092694>

## SITXHRM002 Roster staff

### Modification History

Not applicable.

### Application

This unit describes the performance outcomes, skills and knowledge required to develop, administer and communicate staff rosters. It requires the ability to plan rosters according to industrial provisions, operational efficiency requirements, and within wage budgets.

This unit applies to individuals responsible for developing staff rosters for situations involving potentially large numbers of staff working across a range of different service periods or shifts. It does not apply to small office environments.

It applies to senior personnel who operate independently or with limited guidance from others, including dedicated specialist staff or operational supervisors and managers.

The unit applies to all tourism, travel, hospitality and event sectors.

No occupational licensing, certification or specific legislative requirements apply to this unit at the time of publication.

### Pre-requisite Unit

Nil

### Competency Field

Human Resource Management

### Unit Sector

Cross-Sector

### Elements and Performance Criteria

#### ELEMENTS

#### PERFORMANCE CRITERIA

Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Develop staff rosters.	1.1. Develop rosters according to relevant industrial agreements and other considerations and wage budgets. 1.2. Maximise operational and customer service efficiency while minimising wage costs. 1.3. Combine duties where appropriate to ensure effective use of staff. 1.4. Roster teams with complementary skills mix to meet operational requirements. 1.5. Take account of social and cultural considerations and broader organisational policies that affect staff rosters. 1.6. Consult with colleagues to ensure input into rosters. 1.7. Use roster systems and equipment to administer rosters.
2. Present and communicate rosters.	2.1. Present rosters in required formats to ensure clarity of information according to organisational standards. 2.2. Communicate rosters to appropriate colleagues within designated timeframes.
3. Maintain rostering records.	3.1. Administer records of shift time completed by employees or contractors. 3.2. Maintain staff rostering records according to organisational procedures
4. Evaluate rosters.	4.1. Monitor effectiveness of rosters in consultation with colleagues. 4.2. Identify ways in which rosters and roster development processes may be improved and take appropriate action.

## Foundation Skills

Foundation skills essential to performance in this unit, but not explicit in the performance criteria are listed here, along with a brief context statement.

SKILLS	DESCRIPTION
Reading skills to:	<ul style="list-style-type: none"> <li>interpret documents outlining opening and closing times, operational hours, and expected customer traffic.</li> </ul>
Writing skills to:	<ul style="list-style-type: none"> <li>write potentially complex roster documentation.</li> </ul>
Oral communication skills to:	<ul style="list-style-type: none"> <li>ask colleagues questions to confirm their requirements</li> <li>listen, understand and interpret messages.</li> </ul>

- Numeracy skills to:
- complete planning activities involving dates, times and staff ratios.
- Problem-solving skills to:
- re-work rosters in cases of staff illness.
- Teamwork skills to:
- consider staff requests and personal commitments when planning rosters.
- Technology skills to:
- use system capabilities and functions of rostering software programs.

## Unit Mapping Information

SITXHRM401 Roster staff

## Links

Companion Volume implementation guides are found in VETNet -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=68c40a93-e51d-4e0f-bc06-899dff092694>

# Assessment Requirements for SITXHRM002 Roster staff

## Modification History

Not applicable.

## Performance Evidence

Evidence of the ability to complete tasks outlined in elements and performance criteria of this unit in the context of the job role, and:

- prepare staff rosters that meet diverse operational requirements across three different roster periods
- demonstrate the following when preparing each of the above staff rosters:
  - sufficient staff to ensure the delivery of required services within wage budget constraints
  - appropriate skills mix of the team
  - compliance with industrial provisions and organisational policy
  - completion of rosters within commercial and staff time constraints.

## Knowledge Evidence

Demonstrated knowledge required to complete the tasks outlined in elements and performance criteria of this unit:

- sources of information on awards and other industrial provisions
- industrial agreements and other considerations which impact the preparation of staffing rosters:
  - single or multiple awards and enterprise agreements
  - award provisions for:
    - leave
    - mandated breaks between shifts
    - maximum allowed shift hours
    - standard, overtime and penalty pay rates
  - overall number of hours allocated to different staff members
  - use of:
    - contractors and consideration of fees
    - permanent or casual staff
- key elements of applicable awards and enterprise agreements:
  - leave provisions
  - mandated breaks between shifts
  - maximum allowed shift hours
  - standard, overtime and penalty pay rates

- organisational policies which impact the preparation of staffing rosters:
  - sociocultural-friendly organisational initiatives
  - family-friendly workplace initiatives
  - leave for:
    - carers
    - compassionate reasons
    - illness or injury
    - jury service
    - long service
    - maternity or paternity
    - rehabilitation of injured workers
    - study
  - recreation
- industry sector:
  - role of rosters and their importance in controlling staff costs
  - system capabilities and functions of rostering software programs
  - different formats for and inclusions of staff rosters
  - different methods used to communicate rosters, both electronic and paper-based
- specific organisation:
  - social, cultural and skills mix of the team to be rostered
  - full details of human resource policies and procedures that cover leave provisions and socio-cultural issues
  - operational requirements of the business activity, department or event subject to rostering
  - wage budget for the business activity, department or event subject to rostering.

## Assessment Conditions

Skills must be demonstrated in an operational tourism, travel, hospitality or events business operation or activity requiring staff rostering. This can be:

- an industry workplace
- a simulated industry environment.

Assessment must ensure access to:

- computers, printers and rostering software programs
- records of shift time and where relevant electronic equipment used by staff to log commencement and completion time of rostered duties
- applicable industrial awards and enterprise agreements
- operational information about the organisation or department subject to rostering
- information about the cultural and skills mix of a team subject to rostering.

Assessors must satisfy the Standards for Registered Training Organisations' requirements for assessors.

## Links

Companion Volume implementation guides are found in VETNet -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=68c40a93-e51d-4e0f-bc06-899dff092694>



## TAEASS301 Contribute to assessment

### Modification History

Release	Comments
Release 1	This version first released with <i>TAE Training and Education Training Package Version 2.0</i> .

### Application

This unit describes the skills and knowledge required to contribute to the assessment process.

It applies to a person with technical or vocational expertise who is in a supervisory or mentoring/coaching work role, and for whom collecting the evidence for assessment is an adjunct to principal work responsibilities. The unit applies to those involved in collecting evidence for assessment against units of competency or accredited courses.

No licensing, legislative or certification requirements apply to this unit at the time of publication.

### Unit Sector

Assessment

### Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>

ELEMENT	PERFORMANCE CRITERIA
1. Clarify role and responsibilities in the assessment process	<p>1.1 Discuss and confirm the purpose of the assessment with relevant people</p> <p>1.2 Discuss and confirm benchmarks for assessment with the qualified assessor</p> <p>1.3 Access, read and clarify assessment plan with the qualified assessor</p> <p>1.4 Discuss and agree with the qualified assessor specific responsibilities in gathering evidence, and the types of evidence to be gathered</p>
2. Confirm organisational arrangements for evidence gathering	<p>2.1 Access and confirm relevant assessment system policies and procedures, organisational, legal and ethical requirements, and other relevant advice on assessment</p> <p>2.2 Clarify the nominated assessment tools and methods for collecting evidence with the qualified assessor, to ensure that the procedures to be followed, and the instruments to be used are clear</p> <p>2.3 Discuss and confirm with the relevant people the assessment context, including the candidate's characteristics and any need for reasonable adjustments</p> <p>2.4 Confirm and arrange resource requirements in consultation with relevant people</p>
3. Collect evidence in accordance with the assessment plan	<p>3.1 Explain the assessment process to the candidate, including the different responsibilities of the parties involved, and refer any candidate issues or concerns to the qualified assessor, prior to undertaking assessment activities</p> <p>3.2 Use assessment instruments to gather quality evidence within the available time and resources, according to organisational, legal and ethical requirements</p>
4. Record and report findings	<p>4.1 Organise and provide evidence to the qualified assessor in a format suitable for analysis according to the assessment system's policies and procedures</p> <p>4.2 Actively seek feedback from the qualified assessor on whether evidence-gathering activities meet the principles of assessment, and whether the evidence collected meets the rules of evidence</p> <p>4.3 Document areas for improvement in collecting evidence for future assessment activities</p>

## Foundation Skills

*This section describes language, literacy, numeracy and employment skills incorporated in the performance criteria that are required for competent performance.*

Skill	Performance Criteria	Description
Learning	4.2	<ul style="list-style-type: none"> <li>Seeks feedback to build knowledge to improve process and professional practice</li> </ul>
Reading	1.3, 2.1, 2.2, 2.4, 3.2	<ul style="list-style-type: none"> <li>Sources and interprets procedural, and compliance information</li> </ul>
Writing	1.1, 1.2, 1.3, 2.1, 2.3, 2.4, 3.2, 4.1, 4.3	<ul style="list-style-type: none"> <li>Completes workplace documentation accurately using the appropriate language</li> </ul>
Oral Communication	1.1, 1.2, 1.3, 1.4, 2.1, 2.2, 2.3, 2.4, 3.1	<ul style="list-style-type: none"> <li>Communicates information and process requirements clearly, based on techniques appropriate to the audience and environment</li> <li>Uses appropriate speaking and listening techniques to obtain specific information, and to support the assessment process</li> </ul>
Navigate the world of work	2.1, 2.2, 3.2, 4.1	<ul style="list-style-type: none"> <li>Accesses, confirms and takes responsibility for adherence to policies, procedures, and legal and ethical requirements</li> </ul>
Interact with others	4.2	<ul style="list-style-type: none"> <li>Asks questions to clarify understanding, and seeks feedback and further information</li> </ul>
Get the work done	3.1, 4.1	<ul style="list-style-type: none"> <li>Organises work according to defined requirements, taking some responsibility for decisions regarding the format of information</li> </ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
TAEASS301 Contribute to assessment	TAEASS301B Contribute to assessment	Updated to meet Standards for Training Packages	Equivalent unit

## Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=35337905-785d-4f93-8777-e9991ad4c6c3>

# Assessment Requirements for TAEASS301 Contribute to assessment

## Modification History

Release	Comments
Release 1	This version first released with <i>TAE Training and Education Training Package Version 2.0</i> .

## Performance Evidence

The candidate must show evidence of the ability to complete tasks outlined in the elements and performance criteria of this unit, including:

- clarifying the role to be taken during the assessment
- clarifying the assessment plan with the qualified assessor, including agreement about:
  - what evidence will be collected
  - how the evidence will be collected
- carrying out a minimum of three evidence-gathering activities and, on each occasion:
  - document evidence in a clear and concise manner
  - document feedback from others involved in the assessment

reporting findings to the qualified assessor, including an explanation of how the assessment meets the rules of evidence on each of the three occasions.

## Knowledge Evidence

The candidate must be able to demonstrate essential knowledge to effectively complete the task outlined in the elements and performance criteria of this unit. This includes knowledge of:

- competency-based assessment
- the principles of assessment
- the rules of evidence
- the different purposes of assessment
- the diversity of assessment contexts
- different types of evidence
- evidence-gathering methods
- the purpose and features of assessment tools, and assessment plans

- potential barriers and processes relating to evidence-gathering procedures, and assessment processes
- the organisational policies and procedures relevant to this unit of competency.

## Assessment Conditions

Gather evidence to demonstrate consistent performance in conditions that are safe and replicate the workplace. Conditions must be typical of those experienced in the training and assessment environment, and include access to qualified assessors for consultation.

Assessors must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=35337905-785d-4f93-8777-e9991ad4c6c3>

## TAEASS401 Plan assessment activities and processes

### Modification History

Release	Comments
Release 2	This was first released with <i>TAE Training and Education Training Package Release 2.1</i> . Minor update to Assessment Conditions.
Release 1	This version first released with <i>TAE Training and Education Training Package Release 2.0</i> .

### Application

This unit describes the skills and knowledge required to plan the assessment process, including recognition of prior learning (RPL), in a competency-based assessment system.

It applies to individuals with assessment planning responsibilities.

In planning activities and processes, individuals are required to identify the components of assessment tools, analyse and interpret assessment tools, and develop assessment instruments (also known as assessment tasks) and assessment plans.

No licensing, legislative or certification requirements apply to this unit at the time of publication.

### Unit Sector

Assessment

### Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Determine the assessment approach	1.1 Identify the candidate and confirm the purposes and context of the assessment with relevant people according to legal,

ELEMENT	PERFORMANCE CRITERIA
	<p>organisational and ethical requirements</p> <p>1.2 Identify and access applicable industry or workplace standards for the assessment, and any specific assessment requirements</p>
2. Prepare the assessment plan	<p>2.1 Analyse units of competency and assessment requirements to identify evidence needed to demonstrate competence, according to the rules of evidence</p> <p>2.2 Select assessment methods and instruments to support the collection of defined evidence, taking into account the context in which the assessment will take place</p> <p>2.3 Develop the assessment plan and gain approval from relevant stakeholders</p>
3. Identify modification and contextualisation requirements	<p>3.1 Use information from the candidate and, where relevant, the candidate's workplace to identify contextualisation needs</p> <p>3.2 Check advice provided by the training package or course developer relevant to identified contextualisation needs</p> <p>3.3 Analyse existing assessment tools and record amendments required to address identified contextualisation needs</p> <p>3.4 Determine opportunities for integrated assessment activities and record any changes required to assessment tools</p>
4. Develop the assessment instruments	<p>4.1 Analyse available assessment instruments for their suitability for use, and identify any required modifications</p> <p>4.2 Develop assessment instruments to meet the required standard and specific workplace/candidate needs</p> <p>4.3 Map assessment instruments against the unit or course requirements</p> <p>4.4 Write clear instructions for the candidate and assessor regarding the use of assessment instruments</p> <p>4.5 Check and confirm that draft assessment instruments meet required standards and specific workplace/candidate needs and record outcomes of checks</p>

## Foundation Skills

*This section describes language, literacy, numeracy and employment skills incorporated in the performance criteria that are required for competent performance.*



**FOUNDATION SKILLS**

*This section describes language, literacy, numeracy and employment skills incorporated in the performance criteria that are required for competent performance.*

<b>Skill</b>	<b>Performance Criteria</b>	<b>Description</b>
Reading	1.1, 1.2, 2.1, 3.1, 3.2, 3.3, 3.4, 4.2, 4.3	<ul style="list-style-type: none"> <li>Identifies and confirms legal, organisational and ethical requirements</li> <li>Selects and analyses assessment-related documents</li> </ul>
Writing	1.1, 2.1, 2.2, 2.3, 3.1, 3.2, 3.3, 3.4, 4.1, 4.2, 4.3, 4.4, 4.5	<ul style="list-style-type: none"> <li>Documents the assessment plan</li> <li>Develops assessment instruments, including instructions and mapping</li> <li>Records outcomes of draft assessment checks</li> </ul>
Oral Communication	1.1, 2.3, 3.1	<ul style="list-style-type: none"> <li>Participates in exchanges about assessment processes and the trialling of instruments appropriate to the audience</li> </ul>
Navigate the world of work	1.1	<ul style="list-style-type: none"> <li>Identifies, confirms and takes responsibility for adherence to policies, procedures, legal, and ethical requirements</li> </ul>
Interact with others	1.1, 2.3, 3.1	<ul style="list-style-type: none"> <li>Collaborates with others as part of routine activities, and to confirm understanding</li> </ul>
Get the work done	1.1, 1.2, 2.1, 2.2, 3.1, 3.2, 3.3, 3.4, 4.2, 4.3, 4.5	<ul style="list-style-type: none"> <li>Plans a range of routine processes and related tasks with logically sequenced steps, according to defined standards or parameters</li> <li>Uses formal decision-making processes, identifying information and evaluating several choices against a limited set of criteria</li> <li>Evaluates effectiveness of planning and design decisions in terms of how well they meet requirements</li> </ul>

**Unit Mapping Information**

<b>Code and title current version</b>	<b>Code and title previous version</b>	<b>Comments</b>	<b>Equivalence status</b>
TAEASS401 Plan assessment activities and processes	TAEASS401B Plan assessment activities and processes	Updated to meet Standards for Training Packages. Addition of new element.	No equivalent unit

## Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=35337905-785d-4f93-8777-e9991ad4c6c3>

## Assessment Requirements for TAEASS401 Plan assessment activities and processes

### Modification History

Release	Comments
Release 2	This was first released with <i>TAE Training and Education Training Package Release 2.1</i> . Minor update to Assessment Conditions.
Release 1	This version first released with <i>TAE Training and Education Training Package Release 2.0</i> .

### Performance Evidence

The candidate must demonstrate the ability to complete tasks outlined in the elements and performance criteria of this unit, including:

- planning and organising the assessment process on a minimum of five separate occasions
- planning and organising two Recognition of Prior Learning (RPL) assessments (which may be two of the five assessment processes above.)

The evidence requirements for each occasion must include:

- a documented assessment plan
- a different endorsed or accredited unit of competency (or clusters of units of competency) for each of the five occasions
- contextualisation of the unit(s) of competency and the selected assessment tools, where required
- incorporation of reasonable adjustment strategies
- development of suitable assessment instruments for each of the five occasions

following organisational arrangements.

### Knowledge Evidence

The candidate must be able to demonstrate essential knowledge to effectively complete the task outlined in the elements and performance criteria of this unit. This includes knowledge of:

- obligations of an assessor under applicable legislation and/or standards

- the major features of a unit of competency, and how they are to be addressed in assessment activities and processes
- interpreting competency standards as the minimum standard for assessment
- guidelines for contextualising units of competency
- different purposes of assessment and different assessment contexts, including RPL
- the purpose and features of evidence, and different types of evidence, used in competency-based assessments, including RPL
- the principles of assessment, and how they guide the assessment process
- the rules of evidence and how they guide the assessment process
- different assessment methods, including their suitability for collecting various types of evidence
- the components of assessment tools

different types of assessment instruments and their purpose and relevance for specific evidence-gathering opportunities.

## Assessment Conditions

Gather evidence to demonstrate consistent performance in conditions that are safe and which are typical of those experienced in the training and assessment environment. This includes access to the units of competency used in assessment planning activities.

Assessors must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volume implementation guides are found in VETNet -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=35337905-785d-4f93-8777-e9991ad4c6c3>

## TAEASS402 Assess competence

### Modification History

Release	Comments
Release 2	This was first released with <i>TAE Training and Education Training Package Release 2.1</i> . Minor update to Assessment Conditions.
Release 1	This version first released with <i>TAE Training and Education Training Package Release 2.0</i> .

### Application

This unit describes the skills and knowledge required to implement an assessment plan, and gather quality evidence to assess the competence of a candidate using compliant assessment tools.

It applies to teachers, trainers and assessors in enterprises and registered training organisations (RTOs) and those providing assessment advisory services.

No licensing, legislative or certification requirements apply to this unit at the time of publication.

### Unit Sector

Assessment

### Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare for the assessment	1.1 Interpret assessment planning documentation and applicable organisational, legal and ethical requirements for conducting the assessment and confirm with the relevant people 1.2 Access and interpret units of competency that are to be used as

ELEMENT	PERFORMANCE CRITERIA
	<p>benchmarks for assessment, and the nominated assessment tools, to confirm the requirements for the evidence to be collected</p> <p>1.3 Determine opportunities for integrated assessment activities and document any changes to the assessment instruments, where required</p> <p>1.4 Determine opportunities for evidence-gathering in actual or simulated activities, through consultation with the candidate and relevant personnel</p> <p>1.5 Conduct a candidate briefing and explain, discuss and agree on the details of the planned assessment</p> <p>1.6 Arrange identified material and physical resource requirements</p> <p>1.7 Identify any specialist support requirements for the assessment, and organise if necessary</p>
2. Gather quality evidence	<p>2.1 Use agreed assessment methods and tools to gather, organise and document evidence in a format suitable for determining competence</p> <p>2.2 Apply the principles of assessment and rules of evidence in gathering quality evidence</p>
3. Support the candidate	<p>3.1 Discuss and guide candidates in gathering their own evidence to support the recognition of prior learning (RPL)</p> <p>3.2 Use appropriate communication and interpersonal skills to develop a professional relationship with the candidate that reflects sensitivity to individual differences and enables two-way feedback</p> <p>3.3 Make decisions on reasonable adjustments with the candidate, based on the candidate's needs and characteristics</p> <p>3.4 Access specialist support, if required, in accordance with the assessment plan</p> <p>3.5 Address any workplace health and safety (WHS) risk to a person or equipment immediately</p>
4. Make the assessment decision	<p>4.1 Assess the collected evidence, and to evaluate whether it reflects the evidence required to demonstrate competence</p> <p>4.2 Use judgement to infer whether competence has been demonstrated, based on the available evidence</p> <p>4.3 Make the assessment decision in line with agreed assessment procedures and according to the agreed assessment plan</p> <p>4.4 Provide clear and constructive feedback to the candidate regarding the assessment decision, and clearly document</p>

ELEMENT	PERFORMANCE CRITERIA
	follow-up, if required
5. Record and report the assessment decision	5.1 Record assessment outcomes promptly and accurately 5.2 Complete and submit required assessment documentation, according to assessment procedures and confidentiality conventions 5.3 Inform other relevant parties of the assessment decision, according to confidentiality conventions
6. Review the assessment process	6.1 Review the assessment process in consultation with candidates and other relevant people to improve future practice 6.2 Document and record the review according to relevant assessment system policies and procedures

## Foundation Skills

*This section describes language, literacy, numeracy and employment skills incorporated in the performance criteria that are required for competent performance.*

Skill	Performance Criteria	Description
Reading	1.1, 1.2, 2.1, 4.1	<ul style="list-style-type: none"> <li>Accesses and interprets procedural and compliance documentation relevant to the assessment process</li> <li>Examines and evaluates assessment evidence</li> </ul>
Writing	1.1, 1.3, 1.5, 2.1, 3.1, 5.1, 5.2, 5.3, 6.2	<ul style="list-style-type: none"> <li>Completes workplace documentation accurately using appropriate language and following organisational requirements</li> </ul>
Oral Communication	1.1, 1.4, 1.5, 3.1, 3.4, 4.4, 5.3, 6.1	<ul style="list-style-type: none"> <li>Communicates information and assessment process requirements clearly, using techniques appropriate to the audience and environment</li> <li>Interacts appropriately with candidates to build rapport and understanding, and obtain specific information to support the assessment process</li> </ul>
Navigate the world of work	1.1, 3.5, 5.3	<ul style="list-style-type: none"> <li>Identifies, confirms and takes responsibility for adherence to legal and ethical requirements</li> <li>Recognises, and follows, explicit and implicit protocols and meets expectations associated with own role</li> </ul>

Interact with others	1.1, 1.4, 1.5, 3.1, 3.2, 3.4, 5.3, 6.1	<ul style="list-style-type: none"> <li>Adjusts personal communication style in recognition of the values and experiences of others to build rapport</li> <li>Cooperates and collaborates with others and contributes to activities requiring joint responsibility and accountability</li> </ul>
Get the work done	1.1, 1.2, 1.3, 1.4, 1.6, 1.7, 2.1, 2.2, 3.3, 3.4, 4.1, 4.2, 4.3, 6.1, 6.2	<ul style="list-style-type: none"> <li>Uses systematic, analytical processes in complex, non-routine situations, gathering information, and identifying and evaluating options against agreed criteria</li> <li>Organises work according to specific requirements taking some responsibility for decisions regarding the format of information</li> <li>With guidance, reviews the effectiveness of solutions in relation to the set goals</li> </ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
TAEASS402 Assess competence	TAEASS402B Assess competence	Updated to meet Standards for Training Packages	Equivalent unit

## Links

Companion Volume implementation guides are found in VETNet -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=35337905-785d-4f93-8777-e9991ad4c6c3>



## Assessment Requirements for TAEASS402 Assess competence

### Modification History

Release	Comments
Release 2	This was first released with <i>TAE Training and Education Training Package Release 2.1</i> . Minor update to Assessment Conditions.
Release 1	This version first released with <i>TAE Training and Education Training Package Release 2.0</i> .

### Performance Evidence

The candidate must show evidence of the ability to complete tasks outlined in the elements and performance criteria of this unit, including:

- assessment of at least five candidates within the vocational education and training (VET) context against at least one endorsed or accredited unit of competency according to the organisation's assessment processes and practices.
- using recognition of prior learning (RPL) processes in the assessment of at least one candidate (which may be one of the five candidates above)
- making reasonable adjustments in the assessment of at least one candidate.

The assessments must be undertaken under the supervision of a qualified assessor and cover an entire unit of competency for each candidate, including:

- the application of different assessment methods and instruments involving a range of activities and events
- using two-way communication and feedback with the candidate
- exercising judgement in making the assessment decision
- recording and reporting assessment outcomes in accordance with the assessment system and organisational, legal and ethical requirements

reviewing the assessment process.

### Knowledge Evidence

The candidate must be able to demonstrate essential knowledge to effectively complete the task outlined in the elements and performance criteria of this unit. This includes knowledge of:

- competency-based assessment, including:
  - VET as a competency-based system
  - how competency based assessment differs from other types of assessment
  - competency standards as the basis of qualifications
  - structure and application of competency standards
  - the principles of assessment and how they are applied
  - the distinction between assessment tools and assessment instruments
  - the rules of evidence and how they are applied
  - the range of assessment purposes and assessment contexts, including RPL
  - different assessment methods, including suitability for gathering various types of evidence, suitability for the content of units, and resource requirements and associated costs
  - reasonable adjustments and when they are applicable
  - types and forms of evidence, including assessment instruments that are relevant to gathering different types of evidence used in competency-based assessment, including RPL
  - the training and assessment strategies, including policies and procedures established by the industry, organisation or training authority
- RPL policies and procedures established by the organisation
- cultural sensitivity and equity considerations in assessment activities
- current legislative requirements relevant to the assessor and the assessment process
- workplace health and safety (WHS) responsibilities associated with assessing competence, including:
  - requirements for reporting hazards and incidents
  - emergency procedures
  - procedures for the use of relevant personal protective equipment
  - the safe use and maintenance of relevant equipment
  - sources of WHS information.

## Assessment Conditions

Gather evidence to demonstrate consistent performance in a real assessment environment. The assessment environment must include access to assessment tools and recording materials.

Assessors must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=35337905-785d-4f93-8777-e9991ad4c6c3>



## TAEASS403 Participate in assessment validation

### Modification History

Release	Comments
Release 2	This was first released with <i>TAE Training and Education Training Package Release 2.1</i> . Minor updates to Assessment Conditions.
Release 1	This version first released with <i>TAE Training and Education Training Package Release 2.0</i>

### Application

This unit describes the skills and knowledge required to participate in an assessment validation process.

It applies to assessors and workplace supervisors with assessment validation responsibilities participating in, but not necessarily leading, the process.

No licensing, legislative or certification requirements apply to this unit at the time of publication.

### Unit Sector

Assessment

### Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare for validation	1.1 Discuss and confirm the purpose, context and scope of the validation process within relevant assessment system policies and procedures 1.2 Arrange materials for validation activities

ELEMENT	PERFORMANCE CRITERIA
	<p>1.3 Check all documents used in the validation process for accuracy and version control</p> <p>1.4 Analyse relevant units of competency and agree on the evidence needed to demonstrate competence</p>
<p>2. Participate in the validation of assessment tools</p>	<p>2.1 Demonstrate active and appropriate participation in validation sessions and activities using agreed communication methods and modes</p> <p>2.2 Apply principles of assessment and rules of evidence during validation sessions and activities</p> <p>2.3 Check that context and conditions of assessment include clear instructions for assessor and candidate and relate directly to the assessment conditions of the relevant unit</p> <p>2.4 Check that tasks to be administered to the candidate include clear and concise instructions and an outline of evidence requirements</p> <p>2.5 Check that assessment decision-making rules and benchmarks, are clear and enable consistent outcomes</p> <p>2.6 Check that recording mechanisms are clear and allow for sufficient information to be recorded</p> <p>2.7 Review and use assessment maps to assist in determining validity of assessment instruments</p>
<p>3. Contribute to validation outcomes</p>	<p>3.1 Discuss validation findings to support improvements in the quality of assessment in a collective environment</p> <p>3.2 Discuss, agree and record recommendations to improve assessment practice</p>

## Foundation Skills

*This section describes language, literacy, numeracy and employment skills incorporated in the performance criteria that are required for competent performance.*

Skill	Performance Criteria	Description
Reading	1.1, 1.3, 1.4, 2.3, 2.4, 2.5, 2.6, 2.7	<ul style="list-style-type: none"> <li>Analyses and interprets relevant policies and procedures, benchmarks and validation materials</li> </ul>
Writing	1.1, 3.2	<ul style="list-style-type: none"> <li>Records key information from the validation process accurately to meet requirements</li> </ul>
Oral Communication	1.1, 1.4, 2.1, 2.2, 3.1, 3.2	<ul style="list-style-type: none"> <li>Communicates with others to confirm approaches, exchange ideas and information, articulate opinions, and reach agreement with others, using suitable tone, style and language</li> </ul>
Navigate the world of work	1.1	<ul style="list-style-type: none"> <li>Identifies, confirms and takes responsibility for adherence to policies and procedures</li> </ul>
Interact with others	1.1, 2.1, 2.2, 3.1, 3.2	<ul style="list-style-type: none"> <li>Collaborates with others and contributes to activities requiring joint responsibility and accountability</li> </ul>
Get the work done	1.1, 1.2, 1.3, 1.4, 2.3, 2.4, 2.5, 2.6, 2.7, 3.2	<ul style="list-style-type: none"> <li>Organises and prioritises work commitments with a sense of what is achievable within the timeframe</li> <li>Uses analytical processes in non-routine situations gathering information, and identifying and evaluating options against agreed criteria</li> </ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
TAEASS403 Participate in assessment validation	TAEASS403B Participate in assessment validation	Updated to meet Standards for Training Packages. Revised performance criteria.	No equivalent unit

## Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=35337905-785d-4f93-8777-e9991ad4c6c3>

## Assessment Requirements for TAEASS403 Participate in assessment validation

### Modification History

Release	Comments
Release 2	This was first released with <i>TAE Training and Education Training Package Release 2.1</i> . Updates to Assessment Conditions.
Release 1	This version first released with <i>TAE Training and Education Training Package Release 2.0</i>

### Performance Evidence

The candidate must show evidence of the ability to complete tasks outlined in the elements and performance criteria of this unit, including:

- actively participating in a minimum of three validation sessions that address the critical aspects of validation
- clearly identifying the purpose for each validation, and the legal and ethical responsibilities of assessors
- collating and presenting documentation for each validation in a logical manner
- communicating and liaising with relevant people
- providing feedback and interpreting documentation in validation sessions
- recording their contribution to validation findings.
- 

### Knowledge Evidence

The candidate must be able to demonstrate essential knowledge to effectively complete the task outlined in the elements and performance criteria of this unit. This includes knowledge of:

- how to determine the evidence needed to demonstrate competence in a competency-based environment
- the reasons for carrying out validation and different approaches to validation that may be appropriate before, during and after an assessment
- the components of assessment tools
- critical aspects of validation, including validation of assessment processes, methods and products
- how principles of assessment are addressed in validation



- how rules of evidence are addressed in validation
- work health and safety legislation, codes of practice, standards and guidelines that impact on assessment
- obligations of an assessor under applicable legislation and/or standards, particularly in relation to validation activities.
- 

## Assessment Conditions

Gather evidence to demonstrate consistent performance in conditions that are safe and replicate the workplace. Conditions must be typical of those experienced in the training and assessment environment, and include access to:

- the texts and tasks usually found in the workplace
- units of competency and other materials used in validation sessions.

Assessors must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=35337905-785d-4f93-8777-e9991ad4c6c3>

## TAEDEL301 Provide work skill instruction

### Modification History

Release	Comments
Release 1	This version first released with <i>TAE Training and Education Training Package Version 2.0</i> .

### Application

This unit describes the skills and knowledge required to conduct individual and group instruction, demonstrate work skills and assess the success of training and one's own training performance, using existing learning resources in a safe and comfortable learning environment.

It emphasises the training as being driven by the work process and context, and applies to a person working under supervision as a work skill instructor in a wide range of settings not restricted to training organisations,

No licensing, legislative or certification requirements apply to this unit at the time of publication.

### Unit Sector

Delivery and facilitation

### Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Organise instruction and demonstration	1.1 Gather information about learner characteristics and learning needs 1.2 Confirm a safe learning environment 1.3 Gather and check instruction, demonstration objectives, and seek assistance if required 1.4 Access and review relevant learning resources and learning

ELEMENT	PERFORMANCE CRITERIA
	<p>materials for suitability and relevance, and seek assistance to interpret the contextual application</p> <p>1.5 Organise access to necessary equipment or physical resources required for instruction and demonstration</p> <p>1.6 Notify learners of details regarding the implementation of the learning program and/or delivery plan</p>
2. Conduct instruction and demonstration	<p>2.1 Use interpersonal skills with learners to establish a safe and comfortable learning environment</p> <p>2.2 Follow the learning program and/or delivery plan to cover all learning objectives</p> <p>2.3 Brief learners on any workplace health and safety (WHS) procedures and requirements prior to, and during, training</p> <p>2.4 Use delivery techniques to structure, pace and enhance learning</p> <p>2.5 Apply coaching techniques to assist learning</p> <p>2.6 Use communication skills to provide information, instruct learners and demonstrate relevant work skills</p> <p>2.7 Provide opportunities for practice during instruction and through work activities</p> <p>2.8 Provide and discuss feedback on learner performance to support learning</p>
3. Check training performance	<p>3.1 Use measures to ensure learners are acquiring, and can use, new technical and generic skills and knowledge</p> <p>3.2 Monitor learner progress and outcomes in consultation with the learner</p> <p>3.3 Review relationship between the trainer/coach and the learner, and adjust to suit learner needs</p>
4. Review personal training performance	<p>4.1 Reflect upon personal performance in providing instruction and demonstration, and document strategies for improvement</p> <p>4.2 Maintain, store and secure learner records, according to organisational and legal requirements</p>

## Foundation Skills

*This section describes language, literacy, numeracy and employment skills incorporated in the performance criteria that are required for competent performance.*

Skill	Performance Criteria	Description
Learning	4.1	<ul style="list-style-type: none"> <li>Reflects on practice to improve</li> </ul>
Reading	1.1, 1.3, 1.4, 2.2	<ul style="list-style-type: none"> <li>Sources and interprets processes and procedures, learning resources and information relevant to providing a work instruction and delivery</li> </ul>
Writing	1.4, 1.6, 2.3, 2.6, 2.8, 3.2, 4.1, 4.2	<ul style="list-style-type: none"> <li>Accurately maintains learner records and documentation appropriate to the learning context and audience</li> </ul>
Oral Communication	1.1, 1.6, 2.3, 2.4, 2.6	<ul style="list-style-type: none"> <li>Uses appropriate communication strategies to engage, build rapport, provide instruction, monitor progress and provide feedback to individuals or groups</li> </ul>
Interact with others	1.2, 1.3, 2.1, 2.5, 2.8, 3.2	<ul style="list-style-type: none"> <li>Recognises the importance of consultation and negotiation while collaborating to confirm strategy and achieve required outcomes</li> <li>Asks questions in order to clarify understanding, and to provide and seek feedback</li> <li>Builds rapport to establish effective working relationships and to achieve effective outcomes</li> </ul>
Get the work done	1.1-1.6, 2.1-2.8, 3.1-3.3, 4.1, 4.2	<ul style="list-style-type: none"> <li>Organises and completes work according to defined requirements, taking responsibility for some decisions and sequencing tasks to achieve efficient outcomes</li> <li>Identifies and responds to potential risks, problems and opportunities for improvement and considers options for different approaches</li> </ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
TAEDEL301 Provide work skill instruction	TAEDEL301A Provide work skill instruction	Updated to meet Standards for Training Packages	Equivalent unit

## Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=35337905-785d-4f93-8777-e9991ad4c6c3>

# Assessment Requirements for TAEDEL301 Provide work skill instruction

## Modification History

Release	Comments
Release 1	This version first released with <i>TAE Training and Education Training Package Version 2.0</i> .

## Performance Evidence

The candidate must show evidence of the ability to complete tasks outlined in the elements and performance criteria of this unit, including:

- carrying out a minimum of three training sessions, involving demonstrating and instructing particular work skills for at least two different individuals or small groups, with each session addressing:
  - different learning objectives
  - a range of delivery techniques and effective communication skills appropriate to the audience.

## Knowledge Evidence

The candidate must be able to demonstrate essential knowledge to effectively complete the task outlined in the elements and performance criteria of this unit. This includes knowledge of:

- learner characteristics and needs
- the content and requirements of the relevant learning program, and/or the delivery plan
- the sources and availability of relevant learning resources and learning materials
- the content of relevant learning resources and learning materials
- training techniques that enhance learning, and when to use them
- introductory knowledge of learning principles and learning styles
- key workplace health and safety (WHS) issues in the learning environment, including:
  - roles and responsibilities of key personnel
  - responsibilities of learners
  - relevant policies and procedures, including hazard identification, risk assessment, reporting requirements, safe use of equipment and emergency procedures
  - risk controls for the specific learning environment.

## Assessment Conditions

Gather evidence to demonstrate consistent performance in conditions that are safe and replicate the workplace. Conditions must be typical of those experienced in the training and assessment environment and include access to any necessary workplace documents.

Assessors must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=35337905-785d-4f93-8777-e9991ad4c6c3>

# TLIA2009 Complete and check import/export documentation

## Modification History

Release 1. This is the first release of this unit of competency in the TLI Transport and Logistics Training Package.

## Application

This unit involves the skills and knowledge required to complete and check import and export documentation in accordance with the requirements of Customs and related legislation and workplace procedures.

It includes identifying procedures required for documenting import/export of goods, completing documentation to meet legislative and workplace requirements, checking documentation to ensure it meets legislative requirements and lodging documentation for processing.

Work is performed under some supervision generally within a team environment. Work is undertaken in a range of environments including small to large worksites in the customs broking and freight forwarding industries.

No licensing, legislative or certification requirements apply to this unit at the time of publication.

## Pre-requisite Unit

Not applicable.

## Competency Field

A – Handling Cargo/Stock

## Unit Sector

Not applicable.

## Elements and Performance Criteria

### ELEMENTS

Elements describe the

### PERFORMANCE CRITERIA

Performance criteria describe the performance needed to



essential outcomes.

demonstrate achievement of the element.

- |  |   |
|--|---|
| <b>1 Identify procedures required for documentation for import/export of goods</b> | 1.1 Documents required for import/export of goods are identified<br>1.2 Required documents are sourced<br>1.3 Content requirements for each section of the documentation are applied<br>1.4 Timelines for completion of documents are identified and noted<br>1.5 Requirements for permits and other documentation (such as quarantine) are identified and implications are noted<br>1.6 Procedures for obtaining clearances are identified and followed in accordance with the requirements of Customs, related legislation and workplace procedures<br>1.7 Letters of credit are identified and implications of each are noted<br>1.8 Assistance is sought as required to identify necessary documents and to commence process of assessing or completing these documents<br>1.9 Documentation is lodged as required by legislation |
| <b>2 Complete documentation to meet legislative and workplace requirements</b>     | 2.1 Content requirements for each section of the documentation are identified and applied in accordance with the requirements of Customs, related legislation and workplace procedures<br>2.2 Workplace procedures for authorisations are followed<br>2.3 Data entry for documents is completed<br>2.4 Problems arising in completing required documents are identified and assistance is sought to resolve these in accordance with the requirements of Customs, related legislation and workplace procedures<br>2.5 Actions are taken to meet deadlines<br>2.6 Assistance is sought as required in completing required documents  |
| <b>3 Check documentation to ensure it meets</b>                                    | 3.1 Documents are collated and checked before forwarding to supervisor, manager or more senior personnel for checking within designated timelines, in accordance with the   |

<b>legislative requirements</b>		requirements of Customs, related legislation and workplace procedures
	3.2	Declarations are checked to ensure they meet the requirements of Customs, related legislation and workplace procedures
	3.3	Letters of credit are checked to ensure they meet commercial, transport and overseas requirements
	3.4	Dangerous goods documentation is checked in accordance with the requirements of Customs, related legislation and workplace procedures
	3.5	Document revisions are finalised, rechecked and forwarded to supervisor, manager or more senior personnel prior to lodgement
<b>4 Lodge documentation for processing</b>	4.1	Documents are forwarded to relevant personnel in accordance with the requirements of Customs, related legislation and workplace procedures
	4.2	Documents are filed, stored and retained in accordance with the requirements of Customs, related legislation and workplace procedures

## Foundation Skills

Foundation skills essential to performance are explicit in the performance criteria of this unit of competency.

## Range of Conditions

Range is restricted to essential operating conditions and any other variables essential to the work environment.

Non-essential conditions can be found in the Companion Volume Implementation Guide.

## Unit Mapping Information

This unit replaces and is equivalent to TLIA2009A Complete and check import/export documentation.

## Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=df441c6e-213d-43e3-874c-0b3f7036d851>

# **Assessment Requirements for TLIA2009 Complete and check import/export documentation**

## **Modification History**

Release 1. This is the first release of this unit of competency in the TLI Transport and Logistics Training Package.

## **Performance Evidence**

Evidence required to demonstrate competence in this unit must be relevant to and satisfy all of the requirements of the elements and performance criteria on at least one occasion and include:

- communicating and working effectively with others when completing import and export documentation
- completing and checking documentation and records to meet relevant Customs legislation, related legislation and workplace requirements
- completing and/or assessing accuracy of import and export documentation
- identifying procedures required for documentation for import/export of goods
- modifying activities depending on operational contingencies, risk situations and environments
- monitoring work activities in terms of planned schedule
- providing customer/client service
- reading, interpreting and following import and export instructions, procedures and labels
- reporting and/or rectifying identified problems promptly, in accordance with regulatory requirements and workplace procedures
- selecting and using relevant communications, computing and office equipment when completing import and export documentation.

## **Knowledge Evidence**

Evidence required to demonstrate competence in this unit must be relevant to and satisfy all of the requirements of the elements and performance criteria and include knowledge of:

- Australian and international standards, codes, conventions and regulations relevant to importing and exporting cargo and freight
- Customs Act 1901 and related legislation
- documentation requirements for importing and exporting cargo and freight
- focus of operation of work systems, equipment, management and site operating systems for completing import/export cargo and freight documentation

- problems that may occur when completing import and export documentation and appropriate action that can be taken to resolve these problems
- relevant work health and safety (WHS)/occupational health and safety (OHS) and environmental protection procedures and guidelines
- workplace procedures and policies for completing import and export documentation.

## Assessment Conditions

As a minimum, assessors must satisfy applicable regulatory requirements, which include requirements in the Standards for Registered Training Organisations, current at the time of assessment.

As a minimum, assessment must satisfy applicable regulatory requirements, which include requirements in the Standards for Registered Training Organisations, current at the time of assessment.

Assessment must occur in workplace operational situations where it is appropriate to do so; where this is not appropriate, assessment must occur in simulated workplace operational situations that replicate workplace conditions.

Assessment processes and techniques must be appropriate to the language, literacy and numeracy requirements of the work being performed and the needs of the candidate.

Resources for assessment include:

- a range of relevant exercises, case studies and/or other simulations
- relevant and appropriate materials, tools, equipment and personal protective equipment currently used in industry
- applicable documentation including workplace procedures, regulations, codes of practice and operation manuals.
- 

## Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=df441c6e-213d-43e3-874c-0b3f7036d851>

# TLIA2014 Use product knowledge to complete work operations

## Modification History

Release 1. This is the first release of this unit of competency in the TLI Transport and Logistics Training Package.

## Application

This unit involves the skills and knowledge required to use product knowledge to complete work operations in accordance with workplace requirements and relevant regulations, as part of work activities within the transport and logistics industries.

It includes identifying products in a subsection of a warehouse or other storage area, examining quality, reporting on products, as well as using inventory and labelling systems to identify and locate products.

Work is performed under some supervision generally within a team environment.

No licensing, legislative or certification requirements apply to this unit at the time of publication.

## Pre-requisite Unit

Not applicable.

## Competency Field

A – Handling Cargo/Stock

## Unit Sector

Not applicable.

## Elements and Performance Criteria

### ELEMENTS

Elements describe the essential outcomes.

#### 1 Identify products in a

### PERFORMANCE CRITERIA

Performance criteria describe the performance needed to demonstrate achievement of the element.

#### 1.1 Products are identified against specified criteria in

<b>subsection of a warehouse or other storage area</b>	accordance with workplace procedures
	1.2 Storage and handling characteristics are identified and applied consistently
	1.3 Products are described to internal customers identifying features that may affect location, safety or storage requirements
<b>2 Examine quality and report on products</b>	2.1 Products are inspected in accordance with workplace quality assurance procedures
	2.2 Workplace procedures are followed to replace, return or dispose of stock/products that are not useable
	2.3 Non-conforming products are recorded/reported in accordance with workplace procedures
<b>3 Use inventory and labelling systems to identify and locate products</b>	3.1 Inventory and labelling systems are used to locate products within the workplace
	3.2 Goods are physically located and identified

## Foundation Skills

Foundation skills essential to performance are explicit in the performance criteria of this unit of competency.

## Range of Conditions

Range is restricted to essential operating conditions and any other variables essential to the work environment.

Non-essential conditions can be found in the Companion Volume Implementation Guide.

## Unit Mapping Information

This unit replaces and is equivalent to TLIA2014A Use product knowledge to complete work operations.

## Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=df441c6e-213d-43e3-874c-0b3f7036d851>



# Assessment Requirements for TLIA2014 Use product knowledge to complete work operations

## Modification History

Release 1. This is the first release of this unit of competency in the TLI Transport and Logistics Training Package.

## Performance Evidence

Evidence required to demonstrate competence in this unit must be relevant to and satisfy all of the requirements of the elements and performance criteria on at least one occasion and include:

- adapting to differences in products and services in accordance with standard operating procedures
- applying relevant legislation and workplace procedures
- communicating and working effectively with others when handling, transporting and storing products and providing information on products and services
- completing documentation related to work activities
- estimating the size, shape and special requirements of goods and loads
- identifying containers and goods coding, Australian Dangerous Goods (ADG) and International Maritime Dangerous Goods (IMDG) markings and where applicable, emergency information panels
- reading and comprehending simple statements in English
- reading, interpreting and following instructions, procedures, information and signs relevant to handling, transporting, storing products and providing information on products and services
- selecting and using relevant communications, computing and load handling equipment
- selecting and using required personal protective equipment conforming to industry and work health and safety (WHS)/occupational health and safety (OHS) standards.

## Knowledge Evidence

Evidence required to demonstrate competence in this unit must be relevant to and satisfy all of the requirements of the elements and performance criteria and include knowledge of:

- Australian codes and regulations relevant to products being identified, handled, transported, stacked and/or stored as part of work operations
- categories or groups of products and requirements for special handling, stacking and storage
- documentation requirements including reports and records concerning damaged or contaminated goods
- focus of operation of work systems, equipment, management and site operating systems for packaging goods
- housekeeping standards and procedures
- purpose and use of cataloguing and labelling systems
- site layout and obstacles
- strategies to seek out sources of product knowledge and to use this information to inform work
- types of equipment and storage areas appropriate for different categories of goods including perishable, fragile, dangerous, composition/state goods
- workplace procedures and policies for identifying, handling, stacking and storing particular categories of products.

## Assessment Conditions

As a minimum, assessors must satisfy applicable regulatory requirements, which include requirements in the Standards for Registered Training Organisations, current at the time of assessment.

As a minimum, assessment must satisfy applicable regulatory requirements, which include requirements in the Standards for Registered Training Organisations, current at the time of assessment.

Assessment must occur in workplace operational situations where it is appropriate to do so; where this is not appropriate, assessment must occur in simulated workplace operational situations that replicate workplace conditions.

Assessment processes and techniques must be appropriate to the language, literacy and numeracy requirements of the work being performed and the needs of the candidate.

Resources for assessment include:

- a range of relevant exercises, case studies and/or other simulations
- relevant and appropriate materials, tools, equipment and personal protective equipment currently used in industry
- applicable documentation including workplace procedures, regulations, codes of practice and operation manuals.
-

## Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=df441c6e-213d-43e3-874c-0b3f7036d851>

# TLIA2020 Replenish stock

## Modification History

Release 1. This is the first release of this unit of competency in the TLI Transport and Logistics Training Package.

## Application

This unit involves the skills and knowledge required to replenish stock in accordance with workplace requirements as part of work activities undertaken within the transport and logistics industry.

It includes applying product knowledge to participate in stock rotation activities, interpreting and filling replenishment requests, and completing all required stock replenishment tasks.

Work is performed under some supervision generally within a team environment.

No licensing, legislative or certification requirements apply to this unit at the time of publication.

## Pre-requisite Unit

Not applicable.

## Competency Field

A – Handling Cargo/Stock

## Unit Sector

Not applicable.

## Elements and Performance Criteria

### ELEMENTS

Elements describe the essential outcomes.

#### **1 Participate in stock rotation activities**

### PERFORMANCE CRITERIA

Performance criteria describe the performance needed to demonstrate achievement of the element.

1.1 Stock levels are counted against appropriate documentation

1.2 Stock levels are recorded and reported

1.3 Stocks are replenished, adjusted or rotated in accordance with

workplace procedures

1.4 Stock re-ordering processes are activated when appropriate

1.5 Routine and non-routine problems with products or storage systems are reported in accordance with workplace procedures

## **2 Interpret and fill replenishment request**

2.1 Order request documentation is interpreted

2.2 Product/s in order are noted and workplace location/s are identified

2.3 Workplace and product knowledge is used to plan sequence of work

2.4 Appropriate materials handling equipment is selected in accordance with workplace procedures and timeframes, and work health and safety (WHS)/occupational health and safety (OHS) regulations

2.5 Required schedules for order movement and despatch or storage are identified

## **3 Complete stock replenishment**

3.1 Products are sorted, assembled and consolidated in the appropriate storage areas

3.2 Work is checked in accordance with company procedures

3.3 Documentation and records are completed in accordance with workplace procedures

## **Foundation Skills**

Foundation skills essential to performance are explicit in the performance criteria of this unit of competency.

## **Range of Conditions**

Range is restricted to essential operating conditions and any other variables essential to the work environment.

Non-essential conditions can be found in the Companion Volume Implementation Guide.

## Unit Mapping Information

This unit replaces and is equivalent to TLIA2020A Replenish stock.

## Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=df441c6e-213d-43e3-874c-0b3f7036d851>

# Assessment Requirements for TLIA2020 Replenish stock

## Modification History

Release 1. This is the first release of this unit of competency in the TLI Transport and Logistics Training Package.

## Performance Evidence

Evidence required to demonstrate competence in this unit must be relevant to and satisfy all of the requirements of the elements and performance criteria on at least one occasion and include:

- applying relevant legislation and workplace procedures
- communicating and working effectively with others when replenishing stock
- completing documentation related to replenishing stock
- modifying activities depending on operational contingencies, risk situations and environments
- operating and adapting to differences in stock and equipment in accordance with standard operating procedures
- reading, interpreting and following instructions, procedures and labels relevant to replenishing stock
- reporting and/or rectifying identified problems promptly, in accordance with regulatory requirements and workplace procedures
- selecting and using relevant communications, computing and office equipment when replenishing stock
- selecting and using required personal protective equipment conforming to industry and work health and safety (WHS)/occupational health and safety (OHS) standards
- working systematically with required attention to detail without injury to self or others, or damage to goods or equipment.

## Knowledge Evidence

Evidence required to demonstrate competence in this unit must be relevant to and satisfy all of the requirements of the elements and performance criteria and include knowledge of:

- Australian codes and regulations relevant to replenishing stock
- computer records and documentation requirements for replenishing stock
- focus of operation of work systems, equipment, management and site operating systems for replenishing stock
- housekeeping standards and procedures

- principles of operation and functions of stock control systems
- relevant WHS/OHS and environmental protection procedures and guidelines
- site layout and obstacles
- workplace procedures and policies for replenishing stock.

## Assessment Conditions

As a minimum, assessors must satisfy applicable regulatory requirements, which include requirements in the Standards for Registered Training Organisations, current at the time of assessment.

As a minimum, assessment must satisfy applicable regulatory requirements, which include requirements in the Standards for Registered Training Organisations, current at the time of assessment.

Assessment must occur in workplace operational situations where it is appropriate to do so; where this is not appropriate, assessment must occur in simulated workplace operational situations that replicate workplace conditions.

Assessment processes and techniques must be appropriate to the language, literacy and numeracy requirements of the work being performed and the needs of the candidate.

Resources for assessment include:

- a range of relevant exercises, case studies and/or other simulations
- relevant and appropriate materials, tools, equipment and personal protective equipment currently used in industry
- applicable documentation including workplace procedures, regulations, codes of practice and operation manuals.
- 

## Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=df441c6e-213d-43e3-874c-0b3f7036d851>



## TLIA2021 Despatch stock

### Modification History

Release 1. This is the first release of this unit of competency in the TLI Transport and Logistics Training Package.

### Application

This unit involves the skills and knowledge required to despatch stock in accordance with codes/regulations and workplace requirements as part of work activities undertaken within the transport and logistics industry.

It includes analysing orders to identify work requirements, following workplace order picking processes to prepare goods for despatch, and completing despatch tasks in accordance with workplace procedures and schedules.

Work is performed under some supervision generally within a team environment.

No licensing, legislative or certification requirements apply to this unit at the time of publication.

### Pre-requisite Unit

Not applicable.

### Competency Field

A – Handling Cargo/Stock

### Unit Sector

Not applicable.

### Elements and Performance Criteria

#### ELEMENTS

#### PERFORMANCE CRITERIA

Elements describe the essential outcomes.

Performance criteria describe the performance needed to demonstrate achievement of the element.

#### 1 Analyse order to identify

1.1 Order request and consignment note documentation is

<b>work requirements</b>	interpreted
	1.2 Required schedules for despatch are identified
	1.3 Product(s) in order are identified
	1.4 Workplace and product knowledge is used to plan sequence of work
	1.5 Appropriate materials handling equipment is selected within required work health and safety (WHS)/occupational health and safety (OHS) regulations and timeframe for the despatch
<b>2 Follow workplace order picking processes to prepare goods for despatch</b>	2.1 Goods for despatch are selected and checked against product knowledge, labels and other identification systems
	2.2 Products are sorted, assembled and consolidated
	2.3 Orders are secured and placed in storage/despatch zones, in accordance with schedule
	2.4 Order is checked against despatch schedule and order form
<b>3 Complete despatch following workplace procedures and schedules</b>	3.1 Workplace records are completed, and labels and appropriate documentation are attached
	3.2 Load labels and documentation are checked and loading is organised in accordance with workplace procedures and Australian Dangerous Goods (ADG) Code as required
	3.3 Final check of load labels and documentation is completed in accordance with requirements
	3.4 Transportation requirements are communicated to driver as required

## Foundation Skills

Foundation skills essential to performance are explicit in the performance criteria of this unit of competency.

## Range of Conditions

Range is restricted to essential operating conditions and any other variables essential to the work environment.

Non-essential conditions can be found in the Companion Volume Implementation Guide.

## Unit Mapping Information

This unit replaces and is equivalent to TLIA2021A Despatch stock.

## Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=df441c6e-213d-43e3-874c-0b3f7036d851>

# Assessment Requirements for TLIA2021 Despatch stock

## Modification History

Release 1. This is the first release of this unit of competency in the TLI Transport and Logistics Training Package.

## Performance Evidence

Evidence required to demonstrate competence in this unit must be relevant to and satisfy all of the requirements of the elements and performance criteria on at least one occasion and include:

- applying precautions and required action to minimise, control or eliminate hazards that may exist during work activities
- applying relevant legislation and workplace procedures
- communicating and working effectively with others when organising despatch operations
- completing documentation related to organising despatch operations
- estimating size, shape and special requirements of goods and loads
- modifying activities depending on operational contingencies, risk situations and environments
- operating and adapting to differences in goods and equipment in accordance with standard operating procedures
- reading, interpreting and following instructions, procedures and labels relevant to organising despatch operations
- selecting and using relevant equipment and communications technology when organising despatch operations
- selecting and using required personal protective equipment conforming to industry and work health and safety (WHS)/occupational health and safety (OHS) standards
- working systematically with required attention to detail without injury to self or others, or damage to goods or equipment.

## Knowledge Evidence

Evidence required to demonstrate competence in this unit must be relevant to and satisfy all of the requirements of the elements and performance criteria and include knowledge of:

- documentation and record requirements for despatch operations
- equipment used during despatch operations and the precautions and procedures that should be followed in its use
- housekeeping standards and procedures
- operational work systems, equipment, management and site operating systems for despatching goods
- problems that may occur when despatching goods and appropriate action that can be taken to resolve these problems
- regulations relevant to despatch operations, including the Australian Dangerous Goods (ADG) Code and relevant bond, quarantine or other legislative requirements
- relevant WHS/OHS and environmental protection procedures and guidelines
- site layout and obstacles
- workplace procedures and policies for organising despatch operations.

## Assessment Conditions

As a minimum, assessors must satisfy applicable regulatory requirements, which include requirements in the Standards for Registered Training Organisations, current at the time of assessment.

As a minimum, assessment must satisfy applicable regulatory requirements, which include requirements in the Standards for Registered Training Organisations, current at the time of assessment.

Assessment must occur in workplace operational situations where it is appropriate to do so; where this is not appropriate, assessment must occur in simulated workplace operational situations that replicate workplace conditions.

Assessment processes and techniques must be appropriate to the language, literacy and numeracy requirements of the work being performed and the needs of the candidate.

Resources for assessment include:

- a range of relevant exercises, case studies and/or other simulations
- relevant and appropriate materials, tools, equipment and personal protective equipment currently used in industry
- applicable documentation including workplace procedures, regulations, codes of practice and operation manuals.
- 

## Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=df441c6e-213d-43e3-874c-0b3f7036d851>

# TLIA3015 Complete receival/despatch documentation

## Modification History

Release 1. This is the first release of this unit of competency in the TLI Transport and Logistics Training Package.

## Application

This unit involves the skills and knowledge required to complete receival/despatch documentation in accordance with relevant regulations and workplace requirements as part of work activities within the transport and logistics industry.

It includes analysing orders to identify work requirements to fill order, following workplace order documentation processes, and finalising documentation in accordance with workplace procedures and any relevant regulatory requirements.

Work is performed under some supervision generally within a team environment.

No licensing, legislative or certification requirements apply to this unit at the time of publication.

## Pre-requisite Unit

Not applicable.

## Competency Field

A – Handling Cargo/Stock

## Unit Sector

Not applicable.

## Elements and Performance Criteria

### ELEMENTS

Elements describe the

### PERFORMANCE CRITERIA

Performance criteria describe the performance needed to

essential outcomes.

demonstrate achievement of the element.

**1 Analyse order to identify work requirements to fill order**

- 1.1 Order request documentation is interpreted
- 1.2 Product/s in order are noted and workplace location/s are identified
- 1.3 Workplace and product knowledge are used to organise documentation
- 1.4 Required schedules for order movement are identified and noted as required
- 1.5 Special aspects of order such as dangerous/hazardous goods or temperature controlled goods are identified and information on required documentation procedures and relevant regulatory requirements is identified, accessed and interpreted

**2 Follow workplace order documentation processes**

- 2.1 Workplace procedures for order documentation are identified
- 2.2 Workplace documentation is completed in accordance with workplace procedures and relevant regulatory requirements

**3 Finalise documentation**

- 3.1 Order is checked against schedule and order form
- 3.2 Workplace records are completed, and labels and appropriate documentation are attached in accordance with workplace procedures and relevant regulatory requirements
- 3.3 Special transportation requirements are identified and conveyed to appropriate personnel
- 3.4 Required documentation for dangerous goods and hazardous materials is completed in accordance with relevant regulations and current Australian Dangerous Goods (ADG) Code, as required

## Foundation Skills

Foundation skills essential to performance are explicit in the performance criteria of this unit of competency.

## Range of Conditions

Range is restricted to essential operating conditions and any other variables essential to the work environment.

Non-essential conditions can be found in the Companion Volume Implementation Guide.

## Unit Mapping Information

This unit replaces and is equivalent to TLIA3015A Complete receival/despatch documentation.

## Links

Companion Volume implementation guides are found in VETNet -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=df441c6e-213d-43e3-874c-0b3f7036d851>



# **Assessment Requirements for TLIA3015 Complete receival/despatch documentation**

## **Modification History**

Release 1. This is the first release of this unit of competency in the TLI Transport and Logistics Training Package.

## **Performance Evidence**

Evidence required to demonstrate competence in this unit must be relevant to and satisfy all of the requirements of the elements and performance criteria on at least one occasion and include:

- applying relevant legislation and workplace procedures
- communicating effectively with others
- completing receival and despatch documentation
- estimating size, shape and special requirements of goods and loads
- identifying containers and goods coding, Australian Dangerous Goods (ADG) Code markings and emergency information panels
- monitoring work activities in terms of planned schedule
- reading and interpreting relevant instructions, procedures and labels
- selecting and using relevant computer, communications and office equipment
- working systematically with required attention to detail without injury to self or others, or damage to goods or equipment.

## **Knowledge Evidence**

Evidence required to demonstrate competence in this unit must be relevant to and satisfy all of the requirements of the elements and performance criteria and include knowledge of:

- Australian and International Standards, codes and regulations relevant to completing receival/despatch documentation, including current ADG Code and relevant bond, quarantine or other legislative requirements
- documentation requirements for receiving and despatching goods
- focus of operation of work systems, equipment, management and site operating systems for receiving and despatching goods
- housekeeping standards and procedures
- problems that may occur when completing receival and despatch documentation and

appropriate action that can be taken to resolve these problems

- relevant work health and safety (WHS)/occupational health and safety (OHS) and environmental protection procedures and guidelines
- site layout and obstacles
- specifications and standards for checking and inspecting received and despatched goods
- workplace procedures and policies for completing receival/despatch documentation.

## Assessment Conditions

As a minimum, assessors must satisfy applicable regulatory requirements, which include requirements in the *Standards for Registered Training Organisations* current at the time of assessment.

As a minimum, assessment must satisfy applicable regulatory requirements, which include requirements in the *Standards for Registered Training Organisations* current at the time of assessment.

Assessment must occur in workplace operational situations where it is appropriate to do so; where this is not appropriate, assessment must occur in simulated workplace operational situations that replicate workplace conditions.

Assessment processes and techniques must be appropriate to the language, literacy and numeracy requirements of the work being performed and the needs of the candidate.

Resources for assessment include:

- a range of relevant exercises, case studies and/or simulations
- applicable documentation including workplace procedures, regulations, ADG Code, codes of practice and operation manuals
- relevant materials, tools, equipment and personal protective equipment currently used in industry.

## Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=df441c6e-213d-43e3-874c-0b3f7036d851>

# TLIA3016 Use inventory systems to organise stock control

## Modification History

Release 1. This is the first release of this unit of competency in the TLI Transport and Logistics Training Package.

## Application

This unit involves the skills and knowledge required to use inventory systems to organise stock control in accordance with relevant regulations and workplace requirements, as part of work activities in the transport and logistics industry.

It includes identifying inventory and stock control systems in use in the workplace, using re-order procedures to maintain stock levels, organising cyclical stock counts and reporting discrepancies or variances.

Work is performed under some supervision generally within a team environment.

No licensing, legislative or certification requirements apply to this unit at the time of publication.

## Pre-requisite Unit

Not applicable.

## Competency Field

A – Handling Cargo/Stock

## Unit Sector

Not applicable.

## Elements and Performance Criteria

### ELEMENTS

Elements describe the essential outcomes.

#### 1 Identify inventory

### PERFORMANCE CRITERIA

Performance criteria describe the performance needed to demonstrate achievement of the element.

1.1 Workplace inventory and stock control equipment, software

<b>and stock control systems in use in the workplace</b>		and systems are identified
	1.2	Reasons for common database approach to inventory records and documentation in the warehouse are explained
	1.3	Procedures for identifying and reporting discrepancies or variances are identified
<b>2 Use re-order procedures to maintain stock levels</b>	2.1	Stock level maintenance checking is conducted
	2.2	Stock is re-ordered to meet stock level maintenance requirements in accordance with workplace policies and procedures
	2.3	Data is accurately entered and extracted from the inventory/records system using appropriate workplace procedures
<b>3 Organise cyclical stock counts and report discrepancies or variances</b>	3.1	Process for cyclical stock count is planned and work is allocated to team members
	3.2	Clear directions on tasks to be performed are given
	3.3	Stocktake activities are conducted in accordance with workplace procedures
	3.4	Types and causes of record discrepancies are identified
	3.5	Procedures for noting and correcting minor discrepancies are used
	3.6	Major discrepancies are reported in accordance with workplace procedures
	3.7	Workplace documentation is completed
<b>4 Produce reports on record keeping and inventory functions</b>	4.1	Types of reports to be produced from inventory records systems are identified
	4.2	Reports are produced in accordance with workplace procedures and relevant regulatory requirements

## Foundation Skills

Foundation skills essential to performance are explicit in the performance criteria of this unit of competency.

## Range of Conditions

Range is restricted to essential operating conditions and any other variables essential to the work environment.

Non-essential conditions can be found in the Companion Volume Implementation Guide.

## Unit Mapping Information

This unit replaces and is equivalent to TLIA3016A Use inventory systems to organise stock control.

## Links

Companion Volume implementation guides are found in VETNet -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=df441c6e-213d-43e3-874c-0b3f7036d851>

# **Assessment Requirements for TLIA3016 Use inventory systems to organise stock control**

## **Modification History**

Release 1. This is the first release of this unit of competency in the TLI Transport and Logistics Training Package.

## **Performance Evidence**

Evidence required to demonstrate competence in this unit must be relevant to and satisfy all of the requirements of the elements and performance criteria on at least one occasion and include:

- applying relevant legislation and workplace procedures
- communicating effectively with others
- modifying activities depending on operational contingencies, risk situations and environments
- operating and adapting to differences in equipment in accordance with standard operating procedures
- reading, interpreting and following relevant instructions, procedures, information and signs
- reporting and/or rectifying identified problems, faults or malfunctions promptly, in accordance with workplace procedures
- selecting and using relevant communications, computing and office equipment
- working systematically with required attention to detail without injury to self or others, or damage to goods or equipment.

## **Knowledge Evidence**

Evidence required to demonstrate competence in this unit must be relevant to and satisfy all of the requirements of the elements and performance criteria and include knowledge of:

- applications of different types of inventory systems and stock management approaches
- Australian codes and regulations relevant for organising stock control
- computer records and documentation requirements for stock control, including forms, checklists and inventory reports
- housekeeping standards and procedures
- operational inventory systems, equipment, management and site operating systems for controlling stock
- principles of operation and functions of inventory systems
- workplace procedures and policies for using inventory systems to organise stock control
- workplace processes for records management and producing inventory reports.

## Assessment Conditions

As a minimum, assessors must satisfy applicable regulatory requirements, which include requirements in *the Standards for Registered Training Organisations* current at the time of assessment.

As a minimum, assessment must satisfy applicable regulatory requirements, which include requirements in the *Standards for Registered Training Organisations* current at the time of assessment.

Assessment must occur in workplace operational situations where it is appropriate to do so; where this is not appropriate, assessment must occur in simulated workplace operational situations that replicate workplace conditions.

Assessment processes and techniques must be appropriate to the language, literacy and numeracy requirements of the work being performed and the needs of the candidate.

- Resources for assessment include:
- a range of relevant exercises, case studies and/or simulations
- applicable documentation including workplace procedures, regulations, codes of practice and operation manuals
- relevant materials, tools, equipment and personal protective equipment currently used in industry.

## Links

Companion Volume implementation guides are found in VETNet -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=df441c6e-213d-43e3-874c-0b3f7036d851>

# TLIA3018 Organise despatch operations

## Modification History

Release 1. This is the first release of this unit of competency in the TLI Transport and Logistics Training Package.

## Application

This unit involves the skills and knowledge required to organise despatch operations in accordance with codes/regulations and workplace requirements in the transport and logistics industry.

It includes planning and organising despatch operations, organising the storage and despatch of stock, and completing all required documentation and records.

Work is performed under some supervision generally within a team environment.

No licensing, legislative or certification requirements apply to this unit at the time of publication.

## Pre-requisite Unit

Not applicable.

## Competency Field

A – Handling Cargo/Stock

## Unit Sector

Not applicable.

## Elements and Performance Criteria

### ELEMENTS

Elements describe the essential outcomes.

#### 1 Plan and organise despatch operations

### PERFORMANCE CRITERIA

Performance criteria describe the performance needed to demonstrate achievement of the element.

1.1 Knowledge of product characteristics and workplace procedures are applied to stock analysis



- 1.2 Resources including manual handling equipment, employee competencies, storage areas and goods management equipment are identified to match product characteristics
- 1.3 Deadlines are scheduled to meet order requirements
- 1.4 Work processes are planned to meet deadlines
- 2 Organise the storage and despatch of stock**
  - 2.1 Employees, equipment and storage areas are allocated and supervised
  - 2.2 Individuals are informed of work requirements and deadlines
  - 2.3 Work processes are monitored to ensure that human resources and equipment are maintained at productive levels in accordance with workplace procedures and work health and safety (WHS)/occupational health and safety (OHS) requirements
  - 2.4 Stock discrepancies are noted and reported in accordance with company procedures
- 3 Complete documentation**
  - 3.1 Required despatch documentation and records are confirmed
  - 3.2 Required despatch documentation and records are completed clearly and proofread
  - 3.3 Required despatch documentation and records are processed in accordance with workplace procedures

## Foundation Skills

Foundation skills essential to performance are explicit in the performance criteria of this unit of competency.

## Range of Conditions

Range is restricted to essential operating conditions and any other variables essential to the work environment.

Non-essential conditions can be found in the Companion Volume Implementation Guide.

## Unit Mapping Information

This unit replaces and is equivalent to TLIA3018A Organise despatch operations.

## Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=df441c6e-213d-43e3-874c-0b3f7036d851>

# Assessment Requirements for TLIA3018 Organise despatch operations

## Modification History

Release 1. This is the first release of this unit of competency in the TLI Transport and Logistics Training Package.

## Performance Evidence

Evidence required to demonstrate competence in this unit must be relevant to and satisfy all of the requirements of the elements and performance criteria on at least one occasion and include:

- applying relevant legislation and workplace procedures
- communicating and working effectively with others
- estimating size, shape and special requirements of goods and loads
- identifying relevant stock and goods coding and labelling, including Australian Dangerous Goods (ADG) Code and International Maritime Dangerous Goods (IMDG) Code markings
- modifying activities depending on operational contingencies, risk situations and environments
- monitoring work activities in terms of planned schedule
- operating and adapting to differences in equipment in accordance with operating procedures
- reading, interpreting and following relevant instructions, procedures, information and signs
- reporting and/or rectifying identified problems, faults or malfunctions promptly, in accordance with regulatory requirements and workplace procedures
- selecting and using relevant equipment and communications technology
- selecting and using required personal protective equipment conforming to industry and WHS/OHS standards.

## Knowledge Evidence

Evidence required to demonstrate competence in this unit must be relevant to and satisfy all of the requirements of the elements and performance criteria and include knowledge of:

- documentation and record requirements for despatch operations
- equipment used when organising despatch operations, and the precautions and procedures that should be followed in its use
- housekeeping standards and procedures
- operational work systems, equipment, management and site operating systems for organising despatch operations
- problems that may occur and appropriate action that can be taken to resolve these problems
- regulations relevant for organising despatch operations, including the ADG Code and relevant bond, quarantine or other legislative requirements
- relevant WHS/OHS and environmental protection procedures and guidelines
- site layout and obstacles
- workplace procedures and policies for organising despatch operations.

## Assessment Conditions

As a minimum, assessors must satisfy applicable regulatory requirements, which include requirements in the *Standards for Registered Training Organisations* current at the time of assessment.

As a minimum, assessment must satisfy applicable regulatory requirements, which include requirements in the *Standards for Registered Training Organisations* current at the time of assessment.

Assessment must occur in workplace operational situations where it is appropriate to do so; where this is not appropriate, assessment must occur in simulated workplace operational situations that replicate workplace conditions.

Assessment processes and techniques must be appropriate to the language, literacy and numeracy requirements of the work being performed and the needs of the candidate.

Resources for assessment include:

- a range of relevant exercises, case studies and/or simulations
- applicable documentation including workplace procedures, regulations, codes of practice and operation manuals
- relevant materials, tools, equipment and personal protective equipment currently used in industry.

## Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=df441c6e-213d-43e3-874c-0b3f7036d851>



# TLIA3019 Organise receival operations

## Modification History

Release 1. This is the first release of this unit of competency in the TLI Transport and Logistics Training Package.

## Application

This unit involves the skills and knowledge required to organise receival operations in accordance with regulations, codes of practice and workplace requirements in the transport and logistics industry.

It includes planning and organising receival operations, storing received stock and completing all required documentation and records.

Work is performed under some supervision generally within a team environment.

No licensing, legislative or certification requirements apply to this unit at the time of publication.

## Pre-requisite Unit

Not applicable.

## Competency Field

A – Handling Cargo/Stock

## Unit Sector

Not applicable.

## Elements and Performance Criteria

### ELEMENTS

Elements describe the essential outcomes.

#### 1 Plan and organise receival operations

### PERFORMANCE CRITERIA

Performance criteria describe the performance needed to demonstrate achievement of the element.

1.1 Knowledge of product characteristics and workplace procedures are applied to stock analysis

- 1.2 Resources including manual handling equipment, employee competencies, storage areas and goods management equipment are identified to match product characteristics
  - 1.3 Deadlines are scheduled to enable receival of stock in storage zones
  - 1.4 Work processes are planned to meet specified deadlines
- 2 Organise the storage of stock**
  - 2.1 Employees, equipment and storage areas are allocated and supervised
  - 2.2 Individuals are informed of work requirements and deadlines
  - 2.3 Work processes are monitored to ensure human resources, and equipment are maintained at productive levels in accordance with workplace procedures and work health and safety (WHS)/occupational health and safety (OHS) requirements
  - 2.4 Discrepancies in stocks are noted and reported in accordance with workplace procedures
- 3 Complete documentation**
  - 3.1 Documentation and records regarding receival operations are confirmed
  - 3.2 Documentation and records are completed clearly and proofread
  - 3.3 Documentation and records are filed/despached in accordance with workplace procedures and relevant regulatory requirements

## Foundation Skills

Foundation skills essential to performance are explicit in the performance criteria of this unit of competency.

## Range of Conditions

Range is restricted to essential operating conditions and any other variables essential to the work environment.

Non-essential conditions can be found in the Companion Volume Implementation Guide.

## Unit Mapping Information

This unit replaces and is equivalent to TLIA3019A Organise receipt operations.

## Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=df441c6e-213d-43e3-874c-0b3f7036d851>



# Assessment Requirements for TLIA3019 Organise receipt operations

## Modification History

Release 1. This is the first release of this unit of competency in the TLI Transport and Logistics Training Package.

## Performance Evidence

Evidence required to demonstrate competence in this unit must be relevant to and satisfy all of the requirements of the elements and performance criteria on at least one occasion and include:

- applying relevant legislation and workplace procedures
- communicating and working effectively with others
- estimating size, shape and special requirements of goods and loads
- identifying relevant stock and goods coding and labelling, including Australian Dangerous Goods (ADG) Code and International Maritime Dangerous Goods (IMDG) Code markings
- modifying activities depending on operational contingencies, risk situations and environments
- monitoring work activities in terms of planned schedule
- operating and adapting to differences in equipment in accordance with operating procedures
- reading and interpreting relevant instructions, procedures and labels
- selecting and using relevant equipment and communications technology
- selecting and using required personal protective equipment conforming to industry and WHS/OHS standards.

## Knowledge Evidence

Evidence required to demonstrate competence in this unit must be relevant to and satisfy all of the requirements of the elements and performance criteria and include knowledge of:

- documentation and record requirements for receipt operations
- equipment used for organising receipt operations, and the precautions and procedures that should be followed in its use
- housekeeping standards and procedures

- operational work systems, equipment, management and site operating systems for organising receipt operations
- problems that may occur and appropriate action that can be taken to resolve these problems
- regulations relevant for organising receipt operations, including the ADG Code and relevant bond, quarantine or other legislative requirements
- relevant WHS/OHS and environmental protection procedures and guidelines
- site layout and obstacles
- workplace procedures and policies for organising receipt operations.

## Assessment Conditions

As a minimum, assessors must satisfy applicable regulatory requirements, which include requirements in *the Standards for Registered Training Organisations* current at the time of assessment.

As a minimum, assessment must satisfy applicable regulatory requirements, which include requirements in the *Standards for Registered Training Organisations* current at the time of assessment.

Assessment must occur in workplace operational situations where it is appropriate to do so; where this is not appropriate, assessment must occur in simulated workplace operational situations that replicate workplace conditions.

Assessment processes and techniques must be appropriate to the language, literacy and numeracy requirements of the work being performed and the needs of the candidate.

Resources for assessment include:

- a range of relevant exercises, case studies and/or simulations
- applicable documentation including workplace procedures, regulations, codes of practice and operation manuals
- relevant materials, tools, equipment and personal protective equipment currently used in industry.

## Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=df441c6e-213d-43e3-874c-0b3f7036d851>

# TLIA3026 Monitor storage facilities

## Modification History

Release 1. This is the first release of this unit of competency in the TLI Transport and Logistics Training Package.

## Application

This unit involves the skills and knowledge required to monitor storage facilities in accordance with relevant regulations and workplace requirements in the transport and logistics industry.

It includes determining site functions and operations, monitoring storage operations and taking appropriate action in response to identified discrepancies, changes to storage requirements or breaches in operational procedures.

Work is performed under general supervision.

No licensing, legislative or certification requirements apply to this unit at the time of publication.

## Pre-requisite Unit

Not applicable.

## Competency Field

A – Handling Cargo/Stock

## Unit Sector

Not applicable.

## Elements and Performance Criteria

### ELEMENTS

Elements describe the essential outcomes.

#### 1 Determine site

### PERFORMANCE CRITERIA

Performance criteria describe the performance needed to demonstrate achievement of the element.

1.1 Layout of storage facilities, work flow and activities undertaken

**functions and operations**

in each zone are identified

- 1.2 Hazards are identified, risks are assessed and control measures are implemented
- 1.3 Type of storage facilities, their purpose and associated risk factors are identified
- 1.4 Inventory lists are accessed through record management system
- 1.5 Storage separations and co-storage applications are identified

**2 Monitor storage operations**

- 2.1 Inventory data is confirmed to match goods/freight and applicable storage requirements
- 2.2 Storage areas are supervised to ensure movement of personnel and goods/freight are in accordance with workplace procedures
- 2.3 Storage facilities are checked to ensure appropriate operational capacity
- 2.4 Integrity of goods/materials are monitored to ensure appropriate quality is maintained
- 2.5 Discrepancies/changes to storage requirements and/or inventory lists are noted and action is undertaken in accordance with workplace procedures
- 2.6 Appropriate action/s are initiated in response to breaches of operational procedures or to an emergency/incident
- 2.7 Operational actions and investigative outcomes are documented in accordance with workplace procedures

## Foundation Skills

Foundation skills essential to performance are explicit in the performance criteria of this unit of competency.

## Range of Conditions

Range is restricted to essential operating conditions and any other variables essential to the work environment.

Non-essential conditions can be found in the Companion Volume Implementation Guide.

## Unit Mapping Information

This unit replaces and is equivalent to TLIA3026A Monitor storage facilities.

## Links

Companion Volume implementation guides are found in VETNet -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=df441c6e-213d-43e3-874c-0b3f7036d851>

# Assessment Requirements for TLIA3026 Monitor storage facilities

## Modification History

Release 1. This is the first release of this unit of competency in the TLI Transport and Logistics Training Package.

## Performance Evidence

Evidence required to demonstrate competence in this unit must be relevant to and satisfy all of the requirements of the elements and performance criteria on at least one occasion and include:

- applying precautions and required action to minimise, control or eliminate identified hazards
- applying relevant legislation and workplace procedures
- communicating and working effectively with others
- completing relevant documentation
- monitoring equipment performance
- operating and adapting to differences in equipment in accordance with operating procedures
- reading, interpreting and following relevant instructions, procedures and signs
- using information on products and stock to determine, plan and organise processes used for monitoring storage facilities.

## Knowledge Evidence

Evidence required to demonstrate competence in this unit must be relevant to and satisfy all of the requirements of the elements and performance criteria and include knowledge of:

- Australian codes and regulations, permit and licence requirements relevant to workplace activities
- equipment applications, capacities, configurations, safety hazards and control mechanisms
- operational work systems, equipment, management and site operating systems
- housekeeping standards and procedures
- information on various categories or groups of products including their key characteristics and hazards, and the special handling, stacking and storage requirements for each
- problems that may occur and appropriate action that can be taken
- relevant work health and safety (WHS)/occupational health and safety (OHS) and environmental protection procedures and guidelines

- requirements for workplace documentation reports and records
- site layout
- types of storage areas and related equipment appropriate for different types of goods including perishable, fragile and/or hazardous/dangerous goods
- workplace procedures and policies relevant to the monitoring of storage facilities.

## Assessment Conditions

As a minimum, assessors must satisfy applicable regulatory requirements, which include requirements in the *Standards for Registered Training Organisations* current at the time of assessment.

As a minimum, assessment must satisfy applicable regulatory requirements, which include requirements in the *Standards for Registered Training Organisations* current at the time of assessment.

Assessment must occur in workplace operational situations where it is appropriate to do so; where this is not appropriate, assessment must occur in simulated workplace operational situations that replicate workplace conditions.

Assessment processes and techniques must be appropriate to the language, literacy and numeracy requirements of the work being performed and the needs of the candidate.

Resources for assessment include:

- a range of relevant exercises, case studies and/or simulations
- applicable documentation including workplace procedures, regulations, codes of practice and operation manuals
- relevant materials, tools, equipment and personal protective equipment currently used in industry.

## Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=df441c6e-213d-43e3-874c-0b3f7036d851>

## TLIA3038 Control and order stock

### Modification History

Release 1. This is the first release of this unit of competency in the TLI Transport and Logistics Training Package.

### Application

This unit involves the skills and knowledge required to control and order stock for a workplace store in accordance with relevant codes of practice, regulations and workplace procedures.

It specifically covers maintaining stock levels and records, organising and administering stocktakes, identifying stock losses, processing stock orders and following up orders.

Work is performed under general supervision, with some accountability and responsibility for self and others in achieving prescribed outcomes.

No licensing, legislative or certification requirements apply to this unit at the time of publication.

### Pre-requisite Unit

Not applicable.

### Competency Field

A – Handling Cargo/Stock

### Unit Sector

Not applicable.

### Elements and Performance Criteria

#### ELEMENTS

Elements describe the essential outcomes.

#### 1 Maintain stock levels

#### PERFORMANCE CRITERIA

Performance criteria describe the performance needed to demonstrate achievement of the element.

1.1 Stock levels are monitored and maintained at levels



- and records** prescribed by workplace specifications
- 1.2 Stock security systems are monitored and adjusted as required
  - 1.3 Stock re-order cycles are maintained, monitored and adjusted as required
  - 1.4 Colleagues are informed about their individual responsibilities for recording stock
  - 1.5 Stock storage and movement records are maintained in accordance with workplace procedures
  - 1.6 Stock performance is monitored and fast/slow moving items are identified and reported in accordance with workplace procedures
- 2 Organise and administer stocktakes**
- 2.1 Stocktakes are organised at the appropriate time and responsibilities are allocated to staff
  - 2.2 Accurate reports on stocktake data are produced within designated timelines
- 3 Identify stock losses**
- 3.1 Losses are accurately identified, recorded and assessed against potential loss as forecast, on a regular basis
  - 3.2 Identified losses are reported in accordance with workplace procedures
  - 3.3 Avoidable losses are identified, reasons are established, and appropriate solutions are recommended and implemented to prevent future avoidable losses
- 4 Process stock orders**
- 4.1 Orders for stock are accurately processed in accordance with workplace procedures
  - 4.2 Stock ordering and recording systems are accurately maintained
  - 4.3 Purchase and supply agreements are correctly used and appropriate details are recorded
  - 4.4 Negotiated purchase and supply agreements are recorded accurately and filed for retrieval
- 5 Follow up orders**
- 5.1 Delivery process is monitored to meet agreed deadlines
  - 5.2 Appropriate liaison is undertaken with colleagues and suppliers to ensure continuity of supply

5.3 Routine supply problems are followed up or referred to the appropriate person in accordance with workplace policy

5.4 Stock is distributed in accordance with agreed allocations

## **6 Complete documentation**

6.1 Required records and documentation are confirmed

6.2 Required records and documentation are completed clearly and proofread

6.3 Required records and documentation are processed in accordance with workplace procedures

## **Foundation Skills**

Foundation skills essential to performance are explicit in the performance criteria of this unit of competency.

## **Range of Conditions**

Range is restricted to essential operating conditions and any other variables essential to the work environment.

Non-essential conditions can be found in the Companion Volume Implementation Guide.

## **Unit Mapping Information**

This unit replaces and is equivalent to TLIA3038A Control and order stock.

## **Links**

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=df441c6e-213d-43e3-874c-0b3f7036d851>

# Assessment Requirements for TLIA3038 Control and order stock

## Modification History

Release 1. This is the first release of this unit of competency in the TLI Transport and Logistics Training Package.

## Performance Evidence

Evidence required to demonstrate competence in this unit must be relevant to and satisfy all of the requirements of the elements and performance criteria on at least one occasion and include:

- adapting to differences in stock and systems in accordance with standard operating procedures
- applying relevant legislation and workplace procedures
- communicating and working effectively with others
- monitoring stock levels
- reading and interpreting relevant instructions, procedures and labels
- reporting and/or rectifying identified problems, faults or malfunctions promptly, in accordance with regulatory requirements and workplace procedures
- selecting and using relevant communications and computing equipment.

## Knowledge Evidence

Evidence required to demonstrate competence in this unit must be relevant to and satisfy all of the requirements of the elements and performance criteria and include knowledge of:

- contacts and sources of information and documentation needed when controlling and ordering stock
- customer service policies and procedures
- how to interpret workplace specifications and orders for supplies
- principles of stock control
- problems that may occur and appropriate action that can be taken to resolve these problems
- procedures for ordering stock
- protocols and procedures for liaising with supplier representatives, drivers and colleagues using appropriate technology
- relevant codes of practice and legislative requirements (for example dangerous goods regulations, health and hygiene regulations)

- site layout
- stock control documentation and systems used in workplace stores
- stock security systems
- systems for completing relevant records and documentation.

## Assessment Conditions

As a minimum, assessors must satisfy applicable regulatory requirements, which include requirements in the *Standards for Registered Training Organisations* current at the time of assessment.

As a minimum, assessment must satisfy applicable regulatory requirements, which include requirements in the *Standards for Registered Training Organisations* current at the time of assessment.

Assessment must occur in workplace operational situations where it is appropriate to do so; where this is not appropriate, assessment must occur in simulated workplace operational situations that replicate workplace conditions.

Assessment processes and techniques must be appropriate to the language, literacy and numeracy requirements of the work being performed and the needs of the candidate.

Resources for assessment include:

- a range of relevant exercises, case studies and/or simulations
- applicable documentation including workplace procedures, regulations, codes of practice and operation manuals
- relevant materials, tools, equipment and personal protective equipment currently used in industry.

## Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=df441c6e-213d-43e3-874c-0b3f7036d851>

## **TLIA3039 Receive and store stock**

### **Modification History**

Release 1. This is the first release of this unit of competency in the TLI Transport and Logistics Training Package.

### **Application**

This unit involves the skills and knowledge required to receive and store stock for a workplace store in an enterprise/organisation in a transport, logistics, production, hospitality, retail or other relevant industry sector, in compliance with relevant codes of practice, regulations and workplace procedures.

Work must be carried out for receiving and storing stock in a workplace store. It specifically covers taking delivery of stock, storing, rotating and maintaining stock received, and completing documentation.

Work is performed under general supervision, with some accountability and responsibility for self and others in achieving the prescribed outcomes.

No licensing, legislative or certification requirements apply to this unit at the time of publication.

### **Pre-requisite Unit**

Not applicable.

### **Competency Field**

A – Handling Cargo/Stock

### **Unit Sector**

Not applicable.

### **Elements and Performance Criteria**

Elements describe the      Performance criteria describe the performance needed to

essential outcomes.

demonstrate achievement of the element.

**1 Take delivery of stock**

- 1.1 Incoming stock is accurately checked against orders and delivery documentation in accordance with workplace procedures
- 1.2 Variations are accurately identified, recorded and communicated to appropriate person
- 1.3 Items are inspected for damage, quality, use-by dates, breakages and discrepancies, and records are made in accordance with workplace policy

**2 Store stock**

- 2.1 Hazards are identified, risks are assessed and control measures are implemented
- 2.2 Stock is promptly and safely transported to appropriate storage area without damage
- 2.3 Stock is stored in appropriate location within area and in accordance with workplace security procedures
- 2.4 Appropriate personal protective equipment is correctly used during receipt and storage operations
- 2.5 Stock levels are accurately recorded in accordance with workplace procedures
- 2.6 Stock is labelled in accordance with workplace procedures

**3 Rotate and maintain stock**

- 3.1 Stock is rotated as required in accordance with workplace policy
- 3.2 Stock is moved using appropriate equipment in accordance with work health and safety (WHS)/occupational health and safety (OHS) requirements, relevant regulations and workplace procedures
- 3.3 Quality of stock is checked and reported
- 3.4 Appropriate action is taken where stock quality is identified as outside specified standards
- 3.5 Stock is placed in storage or disposed of in accordance with workplace policy

**4 Complete documentation**

- 4.1 Required documentation procedures and processes are confirmed
- 4.2 Records and documentation are completed legibly and proofread
- 4.3 Records and documentation are processed in accordance with workplace procedures

**Foundation Skills**

Foundation skills essential to performance are explicit in the performance criteria of this unit of competency.

**Range of Conditions**

Range is restricted to essential operating conditions and any other variables essential to the work environment.

Non-essential conditions can be found in the Companion Volume Implementation Guide.

**Unit Mapping Information**

This unit replaces and is equivalent to TLIA3039A Receive and store stock.

**Links**

Companion Volume implementation guides are found in VETNet -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=df441c6e-213d-43e3-874c-0b3f7036d851>

# Assessment Requirements for TLIA3039 Receive and store stock

## Modification History

Release 1. This is the first release of this unit of competency in the TLI Transport and Logistics Training Package.

## Performance Evidence

Evidence required to demonstrate competence in this unit must be relevant to and satisfy all of the requirements of the elements and performance criteria on at least one occasion and include:

- applying relevant legislation and workplace procedures
- communicating and working effectively with others
- monitoring work activities in terms of planned schedule
- operating and adapting to differences in equipment in accordance with standard operating procedures
- reading and interpreting relevant instructions, procedures and labels
- selecting and using relevant communications and computing equipment
- selecting and using required personal protective equipment conforming to industry and work health and safety (WHS)/occupational health and safety (OHS) standards
- working systematically with required attention to detail without injury to self or others, or damage to goods or equipment.

## Knowledge Evidence

Evidence required to demonstrate competence in this unit must be relevant to and satisfy all of the requirements of the elements and performance criteria and include knowledge of:

- contacts and sources of information and documentation needed when receiving and storing stock
- customer service policies and procedures
- interpretation of workplace specifications and orders for supplies
- principles of stock control
- problems that may occur when receiving and storing stock and appropriate action that can be taken to resolve these problems
- procedures for operating electronic communications equipment
- protocols and procedures for liaising with supplier representatives, drivers and colleagues using appropriate technology



- purpose and procedures for using relevant personal protective equipment
- relevant codes of practice and legislative requirements (for example dangerous goods regulations, health and hygiene regulations)
- relevant WHS/OHS and environmental procedures and regulations
- safe lifting and handling procedures
- site layout
- stock control documentation and systems used in workplace stores
- stock security systems
- systems for completing relevant records and documentation.

## Assessment Conditions

As a minimum, assessors must satisfy applicable regulatory requirements, which include requirements in the *Standards for Registered Training Organisations* current at the time of assessment.

As a minimum, assessment must satisfy applicable regulatory requirements, which include requirements in the *Standards for Registered Training Organisations* current at the time of assessment.

Assessment must occur in workplace operational situations where it is appropriate to do so; where this is not appropriate, assessment must occur in simulated workplace operational situations that replicate workplace conditions.

Assessment processes and techniques must be appropriate to the language, literacy and numeracy requirements of the work being performed and the needs of the candidate.

Resources for assessment include:

- a range of relevant exercises, case studies and/or simulations
- relevant and appropriate materials, tools, equipment and personal protective equipment currently used in industry
- applicable documentation including workplace procedures, regulations, codes of practice and operation manuals.

## Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=df441c6e-213d-43e3-874c-0b3f7036d851>

## **TLIA4025 Regulate temperature controlled stock**

### **Modification History**

Release 1. This is the first release of this unit of competency in the TLI Transport and Logistics Training Package.

### **Application**

This unit involves the skills and knowledge required to regulate temperature controlled stock in accordance with relevant regulations and workplace procedures within the transport and logistics industry.

It includes identifying goods requiring temperature control, monitoring temperature of goods, and identifying and rectifying identified problems.

Work is performed under some supervision generally within a team environment.

No licensing, legislative or certification requirements apply to this unit at the time of publication.

### **Pre-requisite Unit**

Not applicable.

### **Competency Field**

A – Handling Cargo/Stock

### **Unit Sector**

Not applicable.

### **Elements and Performance Criteria**

#### **ELEMENTS**

Elements describe the

#### **PERFORMANCE CRITERIA**

Performance criteria describe the performance needed to

essential outcomes.

demonstrate achievement of the element.

**1 Identify goods requiring temperature control**

- 1.1 Goods requiring temperature control are identified
- 1.2 Temperature for short-term and long-term storage is selected to match product type
- 1.3 Upper and lower limits for temperature control are identified
- 1.4 Storage separations and co-storage applications are identified for products

**2 Monitor temperature**

- 2.1 Appropriate methods for determining temperature of goods are identified
- 2.2 Job hazards are identified and required action is taken to minimise, control or eliminate identified hazards
- 2.3 Storage areas are monitored for temperatures within range for product types
- 2.4 Products are monitored to ensure compliance with temperature storage requirements
- 2.5 Short-term storage times are identified for transit goods
- 2.6 Documentation is completed in accordance with workplace procedures

**3 Identify and rectify problems**

- 3.1 Implications of incorrect temperature are identified
- 3.2 Damaged goods are identified and appropriate action is taken in accordance with workplace procedures
- 3.3 Causes of out-of-temperature range are identified
- 3.4 Appropriate personnel are notified for problem rectification
- 3.5 Goods handling workplace procedures for maintenance of stock under temperature control are identified and implemented

## Foundation Skills

Foundation skills essential to performance are explicit in the performance criteria of this unit of competency.

## Range of Conditions

Range is restricted to essential operating conditions and any other variables essential to the work environment.

Non-essential conditions can be found in the Companion Volume Implementation Guide.

## Unit Mapping Information

This unit replaces and is equivalent to TLIA4025A Regulate temperature controlled stock.

## Links

Companion Volume implementation guides are found in VETNet -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=df441c6e-213d-43e3-874c-0b3f7036d851>

# Assessment Requirements for TLIA4025 Regulate temperature controlled stock

## Modification History

Release 1. This is the first release of this unit of competency in the TLI Transport and Logistics Training Package.

## Performance Evidence

Evidence required to demonstrate competence in this unit must be relevant to and satisfy all of the requirements of the elements and performance criteria on at least one occasion and include:

- applying relevant legislation and workplace procedures
- checking refrigeration equipment operation in terms of maintenance schedule and standard operating procedures
- communicating effectively with others
- implementing contingency plans
- operating and adapting to differences in stock and equipment in accordance with workplace procedures
- reading and interpreting relevant instructions, procedures and labels
- reporting and/or rectifying identified problems, faults or malfunctions promptly, in accordance with regulatory requirements and workplace procedures
- selecting and using relevant equipment, processes and procedures
- working systematically with required attention to detail without injury to self or others, or damage to goods or equipment.

## Knowledge Evidence

Evidence required to demonstrate competence in this unit must be relevant to and satisfy all of the requirements of the elements and performance criteria and include knowledge of:

- focus of operation of work systems, equipment, management and site operating systems for regulating temperature controlled stock
- hazards when regulating and working with temperature controlled stock and appropriate action to control the risks involved
- problems that can occur with temperature controlled stock and appropriate action that can be taken
- procedures for pre-cooling and snap freezing

- relevant codes of practice, food safety standards and regulations for temperature controlled stock
- relevant work health safety (WHS)/occupational health and safety (OHS) and environmental protection procedures and guidelines
- special handling, stacking and storage requirements for temperature controlled stock
- workplace procedures and policies for regulating temperature controlled stock.

## Assessment Conditions

As a minimum, assessors must satisfy applicable regulatory requirements, which include requirements in the *Standards for Registered Training Organisations* current at the time of assessment.

As a minimum, assessment must satisfy applicable regulatory requirements, which include requirements in the *Standards for Registered Training Organisations* current at the time of assessment.

Assessment must occur in workplace operational situations where it is appropriate to do so; where this is not appropriate, assessment must occur in simulated workplace operational situations that replicate workplace conditions.

Assessment processes and techniques must be appropriate to the language, literacy and numeracy requirements of the work being performed and the needs of the candidate.

Resources for assessment include:

- a range of relevant exercises, case studies and/or simulations
- applicable documentation including workplace procedures, regulations, food safety standards, codes of practice and operation manuals
- relevant materials, tools, equipment and personal protective equipment currently used in industry.

## Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=df441c6e-213d-43e3-874c-0b3f7036d851>

## **TLID2003 Handle dangerous goods/hazardous substances**

### **Modification History**

Release 1. This is the first release of this unit of competency in the TLI Transport and Logistics Training Package.

### **Application**

This unit involves the skills and knowledge required to handle dangerous goods and hazardous substances in accordance with relevant work health safety (WHS)/occupational health and safety (OHS) regulations concerning the safe handling of dangerous goods and hazardous substances, within the transport and logistics industry.

It includes identifying requirements for working with dangerous goods and/or hazardous substances, confirming site incident procedures and selecting handling techniques.

Work is performed under general supervision.

No licensing, legislative or certification requirements apply to this unit at the time of publication.

### **Pre-requisite Unit**

Not applicable.

### **Competency Field**

D – Load Handling

### **Unit Sector**

Not applicable.

### **Elements and Performance Criteria**

#### **ELEMENTS**

Elements describe the

#### **PERFORMANCE CRITERIA**

Performance criteria describe the performance needed to

essential outcomes.

demonstrate achievement of the element.

- |   |  |
|---|--|
| <b>1 Identify requirements for working with dangerous goods and/or hazardous substances</b> | 1.1 Dangerous goods/hazardous substances are identified from information including class labels, manifests and other documentation<br>1.2 Job hazards are identified and required action is taken to minimise, control or eliminate identified hazards<br>1.3 Storage requirements for dangerous goods/hazardous substances are identified and applied<br>1.4 Legislative requirements for dangerous goods/hazardous substances are used to plan work activities<br>1.5 Handling procedures for different classes and characteristics of goods are observed<br>1.6 Confirmation is sought from relevant personnel where dangerous goods/hazardous materials do not appear to be appropriately marked |
| <b>2 Confirm site incident procedures</b>   | 2.1 Incident reporting processes are identified<br>2.2 Emergency equipment is located and checked in accordance with workplace procedures and statutory regulations<br>2.3 Emergency procedures are identified and confirmed   |
| <b>3 Select handling techniques</b>   | 3.1 Load handling and shifting procedures are selected in accordance with identified requirements for particular goods<br>3.2 Handling equipment is checked for conformity with workplace requirements and manufacturer guidelines<br>3.3 Suitable signage or placards are checked for compliance with workplace procedures, as required   |

## Foundation Skills

Foundation skills essential to performance are explicit in the performance criteria of this unit of competency.



## Range of Conditions

Range is restricted to essential operating conditions and any other variables essential to the work environment.

Non-essential conditions can be found in the Companion Volume Implementation Guide.

## Unit Mapping Information

This unit replaces and is equivalent to TLID2003A Handle dangerous goods/hazardous substances.

## Links

Companion Volume implementation guides are found in VETNet -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=df441c6e-213d-43e3-874c-0b3f7036d851>

# Assessment Requirements for TLID2003 Handle dangerous goods/hazardous substances

## Modification History

Release 1. This is the first release of this unit of competency in the TLI Transport and Logistics Training Package.

## Performance Evidence

Evidence required to demonstrate competence in this unit must be relevant to and satisfy all of the requirements of the elements and performance criteria on at least one occasion and include:

- communicating and working effectively with others
- completing relevant documentation
- determining required permits
- estimating weight and dimensions of load and any special requirements
- identifying and assessing handling and storage precautions and requirements for dangerous goods/hazardous substances
- identifying and selecting safety requirements for handling dangerous goods/hazardous substances
- identifying containers and goods coding, markings and emergency information panels for mode of transport storage selected
- identifying dangerous goods/hazardous substances using labels, International Maritime Dangerous Goods (IMDG) Code markings, HAZCHEM signs and other relevant identification criteria
- identifying job and site hazards, and planning work to minimise risks
- implementing contingency plans
- maintaining workplace records and documentation
- modifying activities depending on operational contingencies, risk situations and environments
- monitoring and prioritising work activities in terms of planned schedule, predicting consequences and identifying improvements
- operating and adapting to differences in equipment in accordance with standard operating procedures
- operating electronic communications equipment to required protocol
- reading, interpreting and following relevant instructions, procedures, regulations, information and signs
- recognising hazards and applying precautions and required action to minimise, control or eliminate recognised hazards
- reporting and/or rectifying identified problems, faults or malfunctions promptly, in accordance with regulatory requirements and workplace procedures

- selecting and using required personal protective equipment (PPE) conforming to industry and work health and safety (WHS)/occupational health and safety (OHS) standards
- selecting appropriate equipment and work systems including PPE
- working systematically with required attention to detail without injury to self or others, or damage to goods or equipment.

## Knowledge Evidence

Evidence required to demonstrate competence in this unit must be relevant to and satisfy all of the requirements of the elements and performance criteria and include knowledge of:

- equipment applications, capacities, configurations, safety hazards and control mechanisms
- housekeeping standards and procedures
- permit and licence requirements
- problems that may arise when handling of dangerous goods and hazardous substances and actions that should be taken to prevent or solve these problems
- relevant aspects of current Australian Dangerous Goods (ADG) Code and relevant Australian Standards
- relevant regulations and codes concerning handling dangerous goods/hazardous substances
- risks when handling dangerous goods/hazardous substances and related precautions to control risk
- workplace procedures for handling and storing dangerous goods/hazardous substances.

## Assessment Conditions

As a minimum, assessors must satisfy applicable regulatory requirements, which include requirements in the *Standards for Registered Training Organisations* current at the time of assessment.

As a minimum, assessment must satisfy applicable regulatory requirements, which include requirements in the *Standards for Registered Training Organisations* current at the time of assessment.

Assessment must occur in workplace operational situations where it is appropriate to do so; where this is not appropriate, assessment must occur in simulated workplace operational situations that replicate workplace conditions.

Assessment processes and techniques must be appropriate to the language, literacy and numeracy

requirements of the work being performed and the needs of the candidate.

Resources for assessment include:

- a range of relevant exercises, case studies and/or simulations
- applicable documentation including workplace procedures, regulations, current ADG Code, codes of practice and operation manuals
- relevant materials, tools, equipment, and personal protective equipment currently used in industry.

## Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=df441c6e-213d-43e3-874c-0b3f7036d851>

## **TLID2004 Load and unload goods/cargo**

### **Modification History**

Release 1. This is the first release of this unit of competency in the TLI Transport and Logistics Training Package.

### **Application**

This unit involves the skills and knowledge required to load and unload goods and cargo in accordance with relevant state/territory roads and traffic authority regulations/permit requirements.

It includes loading and unloading goods and cargo, securing and protecting a load and completing all required documentation.

Work is performed under general supervision within a team environment.

No licensing, legislative or certification requirements apply to this unit at the time of publication.

### **Pre-requisite Unit**

Not applicable.

### **Competency Field**

D – Load Handling

### **Unit Sector**

Not applicable.

### **Elements and Performance Criteria**

#### **ELEMENTS**

Elements describe the essential outcomes.

#### **PERFORMANCE CRITERIA**

Performance criteria describe the performance needed to demonstrate achievement of the element.

- |                                      |  |
|--------------------------------------|--|
| <b>1 Load and unload goods/cargo</b> | <ul style="list-style-type: none"><li>1.1 Load characteristics are identified and taken into account when determining appropriate loading and unloading workplace procedures</li><li>1.2 Job hazards are identified and required action is taken to minimise, control or eliminate identified hazards</li><li>1.3 Dangerous or hazardous goods are identified and handled in accordance with the current Australian Dangerous Goods (ADG) Code and other relevant regulations/permit requirements</li><li>1.4 Load is packed/unpacked to make safe and effective use of available spaces</li><li>1.5 Goods/cargo are loaded in accordance with relevant mass and loading regulations and workplace procedures</li><li>1.6 Lifting aids and appliances are selected and used to aid loading procedures in accordance with workplace procedures and safety legislation</li><li>1.7 Unloading activities are conducted in a safe and efficient manner taking into account suitable locations, stowage, safe use of equipment and balance of remaining load</li><li>1.8 Goods requiring special handling and/or documentation are identified and workplace procedures are followed</li><li>1.9 Relocated material is restacked appropriate for transport method, safe height, weight loading, size and crushability of goods</li></ul> |
| <b>2 Secure and protect load</b>     | <ul style="list-style-type: none"><li>2.1 Load distribution is checked to ensure it is even, legal and within safe working capacity</li><li>2.2 Load is checked to ensure dangerous goods and hazardous substances are appropriately segregated in accordance with current ADG Code</li><li>2.3 Load is secured using correct load restraint and protection equipment for different loads, carrying and storage conditions</li><li>2.4 Load is protected in accordance with legal and workplace safety requirements</li></ul>  |
| <b>3 Complete</b>                    | <ul style="list-style-type: none"><li>3.1 Load is inspected and checked for security to travel, in accordance with relevant regulations/permit requirements</li></ul>  |

**documentation**

and current ADG Code, as required

- 3.2 All required goods documentation is completed in accordance with workplace requirements including current ADG Code, as required

## Foundation Skills

Foundation skills essential to performance are explicit in the performance criteria of this unit of competency.

## Range of Conditions

Range is restricted to essential operating conditions and any other variables essential to the work environment.

Non-essential conditions can be found in the Companion Volume Implementation Guide.

## Unit Mapping Information

This unit replaces and is equivalent to TLID2004A Load and unload goods/cargo.

## Links

Companion Volume implementation guides are found in VETNet -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=df441c6e-213d-43e3-874c-0b3f7036d851>

# Assessment Requirements for TLID2004 Load and unload goods/cargo

## Modification History

Release 1. This is the first release of this unit of competency in the TLI Transport and Logistics Training Package.

## Performance Evidence

Evidence required to demonstrate competence in this unit must be relevant to and satisfy all of the requirements of the elements and performance criteria on at least one occasion and include:

- applying required action to minimise, control or eliminate identified hazards
- completing relevant documentation
- estimating load size, shape and special requirements and taking appropriate action
- identifying containers and goods coding, Australian Dangerous Goods (ADG) and International Maritime Dangerous Goods (IMDG) Code markings and emergency information panels, and taking appropriate action
- implementing contingency plans
- interpreting and following operational instructions and prioritising work
- modifying activities depending on operational contingencies, risk situations and environments
- monitoring work activities in terms of planned schedule
- operating and adapting to differences in cargo and equipment in accordance with operating procedures
- reporting and/or rectifying identified problems promptly, in accordance with regulatory requirements and workplace procedures
- reading and interpreting relevant instructions, procedures, information, signs and labels
- applying relevant legislation and workplace procedures
- selecting and using required personal protective equipment conforming to industry and work health safety (WHS)/occupational health and safety (OHS) standards
- working systematically with required attention to detail without injury to self or others, or damage to goods or equipment.



## Knowledge Evidence

Evidence required to demonstrate competence in this unit must be relevant to and satisfy all of the requirements of the elements and performance criteria and include knowledge of:

- chain of responsibility workplace procedures
- housekeeping workplace procedures
- national load restraint guidelines
- problems that may arise when loading and unloading goods and cargo and actions that should be taken to prevent or solve these problems
- relevant Australian and international regulations and codes of practice for handling and transporting dangerous goods and hazardous substances
- relevant Australian Standards and regulations including state/territory mass and loading regulations
- risks when loading and unloading goods/cargo and related precautions to control risk
- safe work methods for securing load
- security awareness requirements when loading and unloading vehicles and in particular recognising, isolating and reporting suspicious cargo and goods
- site layout and obstacles
- WHS/OHS procedures and guidelines concerning the lifting and movement of loads
- workplace procedures and policies for loading and unloading goods/cargo.

## Assessment Conditions

As a minimum, assessors must satisfy applicable regulatory requirements, which include requirements in the *Standards for Registered Training Organisations* current at the time of assessment.

As a minimum, assessment must satisfy applicable regulatory requirements, which include requirements in the *Standards for Registered Training Organisations* current at the time of assessment.

Assessment must occur in workplace operational situations where it is appropriate to do so; where this is not appropriate, assessment must occur in simulated workplace operational situations that replicate workplace conditions.

Assessment processes and techniques must be appropriate to the language, literacy and numeracy requirements of the work being performed and the needs of the candidate.

Resources for assessment include:

- a range of relevant exercises, case studies and/or simulations
- applicable documentation including workplace procedures, regulations, national Load Restraint Guide (LRG), codes of practice and operation manuals
- relevant materials, tools, equipment and personal protective equipment currently used in

industry.

## Links

Companion Volume implementation guides are found in VETNet -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=df441c6e-213d-43e3-874c-0b3f7036d851>

## **TLID2010 Operate a forklift**

### **Modification History**

Release 1. This is the first release of this unit of competency in the TLI Transport and Logistics Training Package.

### **Application**

This unit involves the skills and knowledge required to operate a forklift in compliance with the relevant state/territory authority licence requirements and regulations, in a variety of operational contexts.

It includes checking forklift condition, driving forklift to fulfil operational requirements, and monitoring and maintaining forklift performance and site conditions.

Assessment of this unit will usually be undertaken within a licensing examination conducted by, or under the authority of, the relevant state/territory work health and safety (WHS)/occupational health and safety (OHS) authority.

Operation of a forklift is performed under some supervision, generally within a team environment.

No licensing, legislative or certification requirements apply to this unit at the time of publication.

### **Pre-requisite Unit**

Not applicable.

### **Competency Field**

D – Load Handling

### **Unit Sector**

Not applicable.

## Elements and Performance Criteria

Elements describe the essential outcomes.

Performance criteria describe the performance needed to demonstrate achievement of the element.

### **1 Check forklift condition**

- 1.1 Condition of forklift is checked for compliance with WHS/OHS and workplace requirements for warning devices, manufacturer specifications and nature of load shifting task
- 1.2 Attachments are checked to ensure appropriate adjustment and operation
- 1.3 Mirrors and seats are adjusted for safe operation by driver
- 1.4 Logbooks are checked and appropriate workplace documentation is completed in accordance with workplace requirements

### **2 Drive forklift**

- 2.1 Forklift is started, steered, manoeuvred, positioned and stopped in accordance with regulations and manufacturer instructions
- 2.2 Engine power is managed to ensure efficiency and performance and to minimise engine and gear damage
- 2.3 Operational hazards are identified and/or anticipated and avoided or controlled through defensive driving and appropriate hazard control techniques
- 2.4 Forklift is driven in reverse, maintaining visibility and achieving accurate positioning
- 2.5 Forklift is parked, shut down and secured in accordance with manufacturer specifications, regulations and workplace procedures

### **3 Operate forklift to handle loads**

- 3.1 Lifting task to be undertaken is appropriately planned, and correct lifting truck and attachments are selected
- 3.2 Load is lifted, carried, lowered and set down in accordance with WHS/OHS legislation, manufacturer specifications and company procedures

### **4 Monitor site conditions**

- 4.1 Hazards and traffic flow are identified when selecting the most efficient route and appropriate adjustments are made
- 4.2 Site conditions are assessed to enable safe operations and to ensure no injury to people or damage to property, equipment, loads or facilities occurs

**5 Monitor and maintain forklift performance**

- 5.1 Performance and efficiency of vehicle operation is monitored during use
- 5.2 Defective/irregular performance and malfunctions are reported to relevant personnel
- 5.3 Forklift records are maintained/updated in accordance with workplace procedures and legislative requirements

**Foundation Skills**

Foundation skills essential to performance are explicit in the performance criteria of this unit of competency.

**Range of Conditions**

Range is restricted to essential operating conditions and any other variables essential to the work environment.

Non-essential conditions can be found in the Companion Volume Implementation Guide.

**Unit Mapping Information**

This unit replaces and is equivalent to TLID2010A Operate a forklift.

**Links**

Companion Volume implementation guides are found in VETNet -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=df441c6e-213d-43e3-874c-0b3f7036d851>

# Assessment Requirements for TLID2010 Operate a forklift

## Modification History

Release 1. This is the first release of this unit of competency in the TLI Transport and Logistics Training Package.

## Performance Evidence

Evidence required to demonstrate competence in this unit must be relevant to and satisfy all of the requirements of the elements and performance criteria on at least one occasion and include:

- applying precautions and required action to minimise, control or eliminate identified hazards
- applying relevant legislation and workplace procedures
- checking and replenishing fluids, and carrying out lubrication processes
- communicating and working effectively with others
- completing relevant documentation
- ensuring forklift and its equipment are maintained in terms of service schedule and standard operating procedures
- identifying points of balance and safe lifting positions on a range of loads when operating a forklift (including accessories)
- modifying activities depending on operational contingencies, risk situations and environments
- monitoring performance of forklift and its equipment, and taking appropriate action as required
- monitoring and prioritising work activities in terms of planned schedule
- operating and adapting to differences in equipment in accordance with standard operating procedures
- operating electronic communications equipment to required protocol
- reading, interpreting and following relevant instructions, procedures, information and signs
- reporting and/or rectifying identified problems, faults or malfunctions promptly, in accordance with regulatory requirements and workplace procedures
- selecting and using required personal protective equipment conforming to industry and WHS/OHS standards
- working systematically with required attention to detail without injury to self or others, or damage to goods or equipment.

## Knowledge Evidence

Evidence required to demonstrate competence in this unit must be relevant to and satisfy all of the requirements of the elements and performance criteria and include knowledge of:

- efficient driving techniques
- engine power management and safe operating strategies
- forklift controls, instruments and indicators, and their use
- forklift handling procedures
- high risk work licence requirements
- operating hazards and related defensive driving and hazard control techniques
- operational emergency procedures
- pre-operational checks carried out on forklift and related action
- principles of stress management when driving a forklift
- relevant duty of care requirements for operating a forklift
- relevant WHS/OHS and environmental procedures and regulations
- site layout and obstacles
- workplace operating procedures.

## Assessment Conditions

As a minimum, assessors must satisfy applicable regulatory requirements, which include requirements in the *Standards for Registered Training Organisations* current at the time of assessment.

As a minimum, assessment must satisfy applicable regulatory requirements, which include requirements in the *Standards for Registered Training Organisations* current at the time of assessment.

Assessment must occur in workplace operational situations where it is appropriate to do so; where this is not appropriate, assessment must occur in simulated workplace operational situations that replicate workplace conditions.

Assessment processes and techniques must be appropriate to the language, literacy and numeracy requirements of the work being performed and the needs of the candidate.

Resources for assessment include:

- a range of relevant exercises, case studies and/or simulations
- relevant and appropriate materials, tools, equipment and personal protective equipment currently used in industry
- applicable documentation including workplace procedures, regulations, codes of practice and operation manuals.

## Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=df441c6e-213d-43e3-874c-0b3f7036d851>



# TLID2022 Conduct weighbridge operations

## Modification History

Release 1. This is the first release of this unit of competency in the TLI Transport and Logistics Training Package.

## Application

This unit involves the skills and knowledge required to conduct weighbridge operations in accordance with regulatory requirements and workplace procedures, within the transport and logistics industry.

It includes setting up for weighbridge operations, weighing loaded and unloaded vehicles, finalising weighbridge operations, and completing required records and documentation.

Work is performed under some supervision, generally within a team environment.

No licensing, legislative or certification requirements apply to this unit at the time of publication.

## Pre-requisite Unit

Not applicable.

## Competency Field

D – Load Handling

## Unit Sector

Not applicable.

## Elements and Performance Criteria

### ELEMENTS

Elements describe the essential outcomes.

### PERFORMANCE CRITERIA

Performance criteria describe the performance needed to demonstrate achievement of the element.

- |  |  |
|--|--|
| <b>1 Set up for weighbridge operations</b> | <ul style="list-style-type: none"><li>1.1 Weighbridge systems, including equipment, computer and recording arrangements, are checked for operational status</li><li>1.2 Tests to confirm accuracy of weighbridge operation and related functions are conducted in accordance with workplace procedures, manufacturer instructions and relevant legislation</li><li>1.3 Accurate reporting of results of inspection and testing is kept in accordance with statutory requirements, workplace procedures and industry guidelines</li><li>1.4 Hazards are identified, risks are assessed and control measures are implemented</li><li>1.5 Faults/discrepancies in weighbridge operation are identified and appropriate action is undertaken in accordance with workplace procedures</li></ul> |
| <b>2 Weigh loaded vehicles</b>             | <ul style="list-style-type: none"><li>2.1 Vehicles likely to exceed weighbridge weight limit are turned away in accordance with workplace procedures</li><li>2.2 Vehicles are directed onto platform to obtain accurate weight</li><li>2.3 Weight of loaded stationary vehicle is registered against vehicle and load identification</li><li>2.4 Vehicle and load information is entered into workplace recording system and driver is issued with receipt and/or statement</li><li>2.5 Areas of dispute are resolved or forwarded for further action to be undertaken in accordance with workplace procedures</li></ul>   |
| <b>3 Weigh unloaded vehicles</b>           | <ul style="list-style-type: none"><li>3.1 Vehicles are directed onto platform to obtain accurate weight</li><li>3.2 Weight of unloaded stationary vehicle is registered against vehicle</li><li>3.3 Proposed load weight is assessed for conformance to statutory requirements</li><li>3.4 Loading operations are commenced in accordance with legal loading weight, customer requirements and workplace procedures, and vehicle is re-weighed to establish final load weight, as required</li><li>3.5 Vehicle and load information are entered into workplace recording system and invoice is issued to driver, as required</li></ul>   |

- |  |     |   |
|--|-----|---|
|  | 3.6 | Driver signatures on weighbridge documents, invoices or receipts are obtained in accordance with statutory and workplace requirements |
|  | 3.7 | Areas of dispute are resolved or forwarded for further action to be undertaken in accordance with workplace procedures                |
| <b>4 Complete weighbridge operations</b> | 4.1 | Weighbridge systems, including equipment, computer and recording arrangements are secured or made ready for next shift                |
|  | 4.2 | Record of operations is maintained and filed in accordance with workplace procedures and statutory requirements                       |

## Foundation Skills

Foundation skills essential to performance are explicit in the performance criteria of this unit of competency.

## Range of Conditions

Range is restricted to essential operating conditions and any other variables essential to the work environment.

Non-essential conditions can be found in the Companion Volume Implementation Guide.

## Unit Mapping Information

This unit replaces and is equivalent to TLID2022A Conduct weighbridge operations.

## Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=df441c6e-213d-43e3-874c-0b3f7036d851>

# Assessment Requirements for TLID2022 Conduct weighbridge operations

## Modification History

Release 1. This is the first release of this unit of competency in the TLI Transport and Logistics Training Package.

## Performance Evidence

Evidence required to demonstrate competence in this unit must be relevant to and satisfy all of the requirements of the elements and performance criteria on at least one occasion and include:

- applying precautions and required action to minimise, control or eliminate identified hazards
- applying relevant legislation and workplace procedures
- communicating and working effectively with others
- completing relevant documentation
- identifying, selecting, and efficiently and effectively using weighbridge equipment
- modifying activities depending on operational contingencies, risk situations and environments
- monitoring and prioritising work activities in terms of planned schedule
- monitoring performance of weighbridge equipment
- operating and adapting to differences in equipment in accordance with workplace operating procedures
- reading, interpreting and following relevant instructions, procedures and information
- reporting and/or rectifying identified problems, errors or malfunctions promptly, in accordance with regulatory requirements and workplace procedures
- selecting and using required personal protective equipment conforming to industry and work health safety (WHS)/occupational health and safety (OHS) standards
- setting up and maintaining weighbridge equipment
- working systematically with required attention to detail without injury to self or others, or damage to goods or equipment.

## Knowledge Evidence

Evidence required to demonstrate competence in this unit must be relevant to and satisfy all of the requirements of the elements and performance criteria and include knowledge of:

- calculation method and approaches for metric and imperial systems
- classification procedures
- correct weighing procedures including statutory and workplace requirements
- emergency response procedures
- equipment applications, capacities, configurations, safety hazards and control mechanisms
- problems that may occur when conducting weighbridge operations and appropriate action that can be taken to resolve these problems
- records and documentation requirements for weighbridge operations
- relevant regulations for conducting weighbridge operations including current Australian Dangerous Goods (ADG) Code
- relevant WHS/OHS and environmental protection procedures and guidelines
- site layout
- weights and measures regulations
- workplace procedures for conducting weighbridge operations.

## Assessment Conditions

As a minimum, assessors must satisfy applicable regulatory requirements, which include requirements in the *Standards for Registered Training Organisations* current at the time of assessment.

As a minimum, assessment must satisfy applicable regulatory requirements, which include requirements in the *Standards for Registered Training Organisations* current at the time of assessment.

Assessment must occur in workplace operational situations where it is appropriate to do so; where this is not appropriate, assessment must occur in simulated workplace operational situations that replicate workplace conditions.

Assessment processes and techniques must be appropriate to the language, literacy and numeracy requirements of the work being performed and the needs of the candidate.

Resources for assessment include:

- a range of relevant exercises, case studies and/or simulations
- applicable documentation including workplace procedures, weights and measures regulations, national Load Restraint Guide (LRG), current ADG Code, codes of practice and operation manuals
- relevant materials, tools, equipment and personal protective equipment currently used in industry.

## Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=df441c6e-213d-43e3-874c-0b3f7036d851>

# TLID3035 Operate a boom type elevating work platform

## Modification History

Release 1. This is the first release of this unit of competency in the TLI Transport and Logistics Training Package.

## Application

This unit involves the skills and knowledge required to operate a boom type elevating work platform less than 11 metres boom length, in accordance with relevant state/territory licence/permit requirements and regulations, in a variety of operational contexts.

It includes inspecting and testing elevating work platform, assessing job and work requirements, planning work and setting up for lift, and carrying out elevation. It also includes implementing planned hazard controls and strategies, and packing up work platform after operations.

Work is performed with limited supervision, and with duty of care responsibility for self and others in achieving the prescribed outcomes.

No licensing, legislative or certification requirements apply to this unit at the time of publication.

## Pre-requisite Unit

Not applicable.

## Competency Field

D – Load Handling

## Unit Sector

Not applicable.

## Elements and Performance Criteria

### ELEMENTS

Elements describe the

### PERFORMANCE CRITERIA

Performance criteria describe the performance needed to

essential outcomes.

demonstrate achievement of the element.

**1 Inspect and test elevating work platform**

- 1.1 Work platform is visually inspected prior to operation for evidence of damage, structural weakness or interference in accordance with pre-operational safety check procedures
- 1.2 Routine pre-operational equipment checks are carried out in accordance with available checklists
- 1.3 Work platform logbook is checked, service requirements are noted and maintenance personnel are advised of requirements
- 1.4 Elevating work platform is started in accordance with manufacturer guidelines and start-up procedures for operations, and abnormal noise or movement is reported to authorised person for corrective action
- 1.5 Start-up checks are conducted in accordance with manufacturer specifications and company procedures to ensure work platform and equipment are operating correctly
- 1.6 Faults are corrected or reported to authorised person for corrective action in accordance with company procedures
- 1.7 Operating and emergency controls are checked for correct operation in accordance with manufacturer specifications, including use of emergency decent device
- 1.8 Boom is lowered under simulated emergency conditions to check for operational effectiveness
- 1.9 Gear and accessories are checked and damaged or worn gear is segregated and reported to authorised person for testing/repair/destruction
- 1.10 Results of inspections are recorded and reported in accordance with company procedures

**2 Assess job requirements and work**

- 2.1 Briefing, handover details, authorisations and clearances are received, interpreted and clarified in accordance with company and site procedures, and legislative requirements
- 2.2 Work area is inspected, potential hazards are identified and appropriate elimination or control measures are selected
- 2.3 Weight of load including personnel and equipment, is correctly estimated to ensure job is within limits of work platform capacity



- 3 Plan work and set up for lift**
- 3.1 Work plan is developed and agreed with relevant workplace personnel, including hazard prevention/control measures, and safety and emergency procedures in line with applicable Australian Standards
  - 3.2 Suitable firm and level standing is chosen and prepared for location of elevating work platform
  - 3.3 Outriggers and stabilisers are correctly deployed and positioned in accordance with manufacturer instructions and appropriate Australian Standards
  - 3.4 Appropriate plates or packing are correctly used under footplates as required to adequately distribute loading
  - 3.5 Ground is checked before and after packing is installed to ensure it is firm enough to bear load
  - 3.6 Job plan is developed including hazard prevention/control measures and safety procedures in accordance with applicable Australian Standards and equipment manufacturer specifications
  - 3.7 Work platform load chart is located and information on permissible loads, radii and heights is taken into account in planning job
  - 3.8 Job requirements, and workplace rules and procedures are taken into account in job plan
  - 3.9 Job plan is discussed and confirmed with relevant personnel
  - 3.10 Work gear and tools are properly stowed in elevating work platform in accordance with Australian Standards, company procedures and guides
- 4 Carry out elevation**
- 4.1 Configuration and operation of elevating work platform are checked as required to ensure safe lift
  - 4.2 Operation of work platform is carried out in accordance with job plan, appropriate Australian Standard and manufacturer specifications
- 5 Implement planned hazard control strategies**
- 5.1 Load is constantly monitored to ensure safety of personnel, load and structural stability
  - 5.2 Unplanned situations are responded to in accordance with company procedures, in a manner that minimises risk to personnel and equipment

- |                                |     |  |
|--------------------------------|-----|--|
|                                | 5.3 | Required signals are correctly given, interpreted and followed in accordance with appropriate Australian Standards   |
| <b>6 Pack up work platform</b> | 6.1 | Elevating work platform is shut down using correct sequence of procedures in accordance with manufacturer instructions   |
|                                | 6.2 | Routine post-operational equipment checks are carried out in accordance with manufacturer instructions and available checklists, and defects are recorded and reported in accordance with company procedures |
|                                | 6.3 | Elevating work platform is dismantled in accordance with job plan, manufacturer instructions and relevant statutory regulations  |
|                                | 6.4 | Outriggers and stabilisers are secured and stowed in accordance with manufacturer instructions   |
|                                | 6.5 | Elevating work platform is correctly stowed and secured in accordance with manufacturer instructions and company procedures  |

## Foundation Skills

Foundation skills essential to performance are explicit in the performance criteria of this unit of competency.

## Range of Conditions

Range is restricted to essential operating conditions and any other variables essential to the work environment.

Non-essential conditions can be found in the Companion Volume Implementation Guide.

## Unit Mapping Information

This unit replaces and is equivalent to TLID3035A Operate a boom type elevating work platform.

## Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=df441c6e-213d-43e3-874c-0b3f7036d851>

# Assessment Requirements for TLID3035 Operate a boom type elevating work platform

## Modification History

Release 1. This is the first release of this unit of competency in the TLI Transport and Logistics Training Package.

## Performance Evidence

Evidence required to demonstrate competence in this unit must be relevant to and satisfy all of the requirements of the elements and performance criteria on at least one occasion and include:

- applying precautions and required action to minimise, control or eliminate identified hazards
- applying relevant legislation and workplace procedures
- communicating effectively with others
- completing relevant documentation
- identifying and correctly using equipment, processes and procedures
- implementing contingency plans
- interpreting and following operational instructions
- modifying activities depending on operational contingencies, risk situations and environments
- monitoring performance of equipment
- monitoring work activities in terms of planned schedule
- operating and adapting to differences in equipment in accordance with workplace operating procedures
- planning own work, predicting consequences and identifying improvements
- reading and interpreting relevant instructions, procedures, regulations, codes of practice and manuals
- reporting and/or rectifying identified problems, faults or malfunctions promptly, in accordance with regulatory requirements and workplace procedures
- selecting and using required personal protective equipment conforming to industry and work health and safety (WHS)/occupational health and safety (OHS) standards
- servicing equipment in terms of maintenance schedule and workplace operating procedures
- working collaboratively with others
- working systematically with required attention to detail without injury to self or others, or damage to goods or equipment.

## Knowledge Evidence

Evidence required to demonstrate competence in this unit must be relevant to and satisfy all of the requirements of the elements and performance criteria and include knowledge of:

- boom type elevating work platform applications, capacities, configurations, safety hazards and control mechanisms
- capability on boom type elevating work platform compliance plate
- operational work systems and equipment
- problems that may arise when operating a boom type elevating work platform and actions that should be taken to prevent or solve these problems
- relevant road rules, regulations, permit and licence requirements for boom type elevating work platform operation
- relevant WHS/OHS and environmental procedures and regulations
- risks and hazards involved in operating a boom type elevating work platform and associated action that can be taken to eliminate or minimise the risk/hazards concerned
- wind speed equipment capability (wind loading)
- workplace procedures for operating a boom type elevating work platform less than 11 metres boom length, at a worksite.

## Assessment Conditions

As a minimum, assessors must satisfy applicable regulatory requirements, which include requirements in the *Standards for Registered Training Organisations* current at the time of assessment.

As a minimum, assessment must satisfy applicable regulatory requirements, which include requirements in the *Standards for Registered Training Organisations* current at the time of assessment.

Assessment must occur in workplace operational situations where it is appropriate to do so; where this is not appropriate, assessment must occur in simulated workplace operational situations that replicate workplace conditions.

Assessment processes and techniques must be appropriate to the language, literacy and numeracy requirements of the work being performed and the needs of the candidate.

Resources for assessment include:

- a range of relevant exercises, case studies and/or simulations
- applicable documentation including workplace procedures, regulations, codes of practice and operation manuals
- relevant materials, tools, equipment and personal protective equipment currently used in industry.

## Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=df441c6e-213d-43e3-874c-0b3f7036d851>

# **TLID3036 Lift and move load using a mobile crane**

## **Modification History**

Release 1. This is the first release of this unit of competency in the TLI Transport and Logistics Training Package.

## **Application**

This unit involves the skills and knowledge required to lift and move a load using a non-slewing mobile crane or a slewing mobile crane, in a variety of operational contexts.

It includes operating mobile crane to complete job requirements, monitoring lift conditions, implementing shut-down procedures, packing up crane after operations and completing all required job records.

People achieving competence in this unit will need to fulfil the applicable state/territory legislated high risk work licence requirements and to comply with relevant codes of practice and/or guidelines for mobile crane operations.

Work is performed with limited supervision and duty of care responsibility for self and others, in achieving the prescribed outcomes.

No licensing, legislative or certification requirements apply to this unit at the time of publication.

## **Pre-requisite Unit**

Not applicable.

## **Competency Field**

D – Load Handling

## **Unit Sector**

Not applicable.

## Elements and Performance Criteria

### ELEMENTS

Elements describe the essential outcomes.

### PERFORMANCE CRITERIA

Performance criteria describe the performance needed to demonstrate achievement of the element.

#### 1 Operate mobile crane

- 1.1 Job hazards are identified and required action is taken to minimise, control or eliminate identified hazards
- 1.2 In ascent and descent to/from crane, correct use is made of means provided, in accordance with relevant codes of practice and workplace procedures
- 1.3 Required signals are correctly given, interpreted and followed in accordance with appropriate workplace procedures
- 1.4 Boom is positioned to ensure load to be lifted is plumbed under hook
- 1.5 Load is hoisted and lowered into position using crane movements, in accordance with appropriate workplace procedures
- 1.6 Crane controls are operated smoothly
- 1.7 Crane is shut down and secured during periods of non-operation, in accordance with manufacturer specifications and workplace procedures

#### 2 Monitor lift conditions

- 2.1 Load is constantly monitored to ensure load and structural stability
- 2.2 Conditions that may affect continuing stability of crane are identified and monitored
- 2.3 Unplanned situations are responded to in accordance with workplace procedures in a manner that minimises risk to personnel and equipment
- 2.4 Dogger is advised of new information that affects lift
- 2.5 Necessary changes to job plan are discussed and confirmed with rest of crew
- 2.6 Advice is sought from supervisor where there is doubt about correct response to unanticipated conditions, or conflict with customer request



- |   |     |   |
|---|-----|---|
|   | 2.7 | Supervisor/allocator is advised of concerns about completing job within timeframe   |
| <b>3 Implement shut-down procedures</b> | 3.1 | Relevant motion locks and brakes are applied  |
|   | 3.2 | Crane is shut down using correct sequence of procedures in accordance with manufacturer specifications and workplace procedures   |
|   | 3.3 | Routine post-operational equipment checks are carried out in accordance with manufacturer specifications  |
| <b>4 Pack up crane</b>                  | 4.1 | Crane is de-rigged with other crane personnel in accordance with manufacturer instructions  |
|   | 4.2 | All lifting equipment and crane components are checked in consultation with crane personnel for signs of deterioration or damage in accordance with appropriate Australian Standard |
|   | 4.3 | Damaged or worn equipment is segregated and reported to authorised person for testing/repair/destruction  |
|   | 4.4 | Crane and equipment are correctly stowed and secured in accordance with manufacturer instructions and appropriate Australian Standard   |
| <b>5 Complete job records</b>           | 5.1 | Customer feedback is sought about satisfaction with completed job, and areas of concern are reported in accordance with workplace procedures  |
|   | 5.2 | Customer signature on job completion documentation is obtained  |
|   | 5.3 | Required workplace records are updated accurately and promptly, and processed in accordance with workplace procedures   |

## Foundation Skills

Foundation skills essential to performance are explicit in the performance criteria of this unit of competency.

## Range of Conditions

Range is restricted to essential operating conditions and any other variables essential to the work environment.

Non-essential conditions can be found in the Companion Volume Implementation Guide.

## Unit Mapping Information

This unit replaces and is equivalent to TLID3036A Lift and move load using a mobile crane.

## Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=df441c6e-213d-43e3-874c-0b3f7036d851>

# **Assessment Requirements for TLID3036 Lift and move load using a mobile crane**

## **Modification History**

Release 1. This is the first release of this unit of competency in the TLI Transport and Logistics Training Package.

## **Performance Evidence**

Evidence required to demonstrate competence in this unit must be relevant to and satisfy all of the requirements of the elements and performance criteria on at least one occasion and include:

- applying precautions and required action to minimise, control or eliminate identified hazards
- applying relevant high risk work legislation and workplace procedures
- applying risk assessment and management procedures
- calculating safe working load (SWL) and working load limit (WLL)
- communicating and working effectively with others
- completing relevant documentation
- effectively completing pre-operational checks, positioning, stabilising, set-up, post-operational checks of mobile crane
- modifying activities depending on operational contingencies, risk situations and environments
- monitoring performance of equipment
- monitoring work activities in terms of planned schedule
- operating and adapting to differences in equipment in accordance with workplace operating procedures
- operating crane, including all functions to their maximum extension, in lifting and moving a load
- reading and interpreting relevant instructions, procedures, information and signs
- reporting and/or rectifying identified problems, faults or malfunctions promptly, in accordance with regulatory requirements and workplace procedures
- servicing equipment in terms of maintenance schedule and standard operating procedures
- using load charts to determine crane limitations and/or required crane set-up
- using mathematical procedures to determine load weight and lifting equipment required for lift.

## Knowledge Evidence

Evidence required to demonstrate competence in this unit must be relevant to and satisfy all of the requirements of the elements and performance criteria and include knowledge of:

- communications systems used during a lift
- hazard management, using the principle of hierarchy of control
- high risk work licence requirements
- mobile crane applications, capacities, configurations, safety hazards and control mechanisms
- operational work systems and equipment
- problems that may occur during a lift, and associated action that can be taken to address these problems
- relevant road rules, regulations, permit and licence requirements for mobile crane operation
- relevant work health and safety (WHS)/occupational health and safety (OHS) and environmental procedures and regulations
- risks and hazards involved in mobile crane operations, and associated action that can be taken to eliminate or minimise the risk
- workplace procedures for operating a mobile crane at a worksite.

## Assessment Conditions

As a minimum, assessors must satisfy applicable regulatory requirements, which include requirements in the *Standards for Registered Training Organisations* current at the time of assessment.

As a minimum, assessment must satisfy applicable regulatory requirements, which include requirements in the *Standards for Registered Training Organisations* current at the time of assessment.

Assessment must occur in workplace operational situations where it is appropriate to do so; where this is not appropriate, assessment must occur in simulated workplace operational situations that replicate workplace conditions.

Assessment processes and techniques must be appropriate to the language, literacy and numeracy requirements of the work being performed and the needs of the candidate.

Resources for assessment include:

- a range of relevant exercises, case studies and/or simulations
- applicable documentation including workplace procedures, regulations, codes of practice and operation manuals
- mobile crane, of the type currently used in industry
- relevant materials, tools, equipment and personal protective equipment currently used in industry.

## Links

Companion Volume implementation guides are found in VETNet -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=df441c6e-213d-43e3-874c-0b3f7036d851>

## TLIG2007 Work in a socially diverse environment

### Modification History

Release 1. This is the first release of this unit of competency in the TLI Transport and Logistics Training Package.

### Application

This unit involves the skills and knowledge required to apply cultural awareness, communication principles and problem-solving techniques to facilitate working in a socially diverse environment. This is done in accordance with workplace procedures, relevant anti-discrimination and equal employment opportunity regulations.

It includes communicating with customers and colleagues from diverse backgrounds and dealing with cross-cultural misunderstandings.

Work is performed with limited or minimum supervision, with some accountability and responsibility for self and others in achieving the prescribed outcomes.

No licensing, legislative or certification requirements apply to this unit at the time of publication.

### Pre-requisite Unit

Not applicable.

### Competency Field

G – Teamwork

### Unit Sector

Not applicable.

### Elements and Performance Criteria

#### ELEMENTS

Elements describe the essential outcomes.

#### 1 Communicate with customers

#### PERFORMANCE CRITERIA

Performance criteria describe the performance needed to demonstrate achievement of the element.

#### 1.1 Customers and colleagues from all cultural groups

**and colleagues from diverse backgrounds**

are valued and treated with respect and sensitivity

- 1.2 Cultural differences are accommodated in verbal and non-verbal communication
- 1.3 Where language barriers exist, efforts are made to communicate through use of gestures or simple words in the other person's language
- 1.4 Assistance from colleagues, reference books or outside organisations is obtained as required

**2 Deal with cross-cultural misunderstandings**

- 2.1 Issues that may cause conflict or misunderstanding in the workplace are identified
- 2.2 Difficulties are addressed with the appropriate people and assistance is sought from team leader/supervisor as required
- 2.3 When difficulties or misunderstandings occur, possible cultural differences are considered
- 2.4 Efforts are made to resolve misunderstandings, taking account of cultural considerations
- 2.5 Issues and problems are referred to the appropriate team leader/supervisor for follow-up

## Foundation Skills

Foundation skills essential to performance are explicit in the performance criteria of this unit of competency.

## Range of Conditions

Range is restricted to essential operating conditions and any other variables essential to the work environment.

Non-essential conditions can be found in the Companion Volume Implementation Guide.

## Unit Mapping Information

This unit replaces and is equivalent to TLIG2007A Work in a socially diverse environment.

## Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=df441c6e-213d-43e3-874c-0b3f7036d851>



# Assessment Requirements for TLIG2007 Work in a socially diverse environment

## Modification History

Release 1. This is the first release of this unit of competency in the TLI Transport and Logistics Training Package.

## Performance Evidence

Evidence required to demonstrate competence in this unit must be relevant to and satisfy all of the requirements of the elements and performance criteria on at least one occasion and include:

- adapting appropriately to cultural differences in the workplace, including modes of behaviour and interactions with others
- communicating and working effectively with others when working in a socially diverse environment
- completing documentation related to working in a socially diverse environment
- reading, interpreting and applying instructions, legislation, procedures, information and signs relevant to working in a socially diverse environment
- reporting and/or rectifying identified problems promptly, in accordance with regulatory requirements and workplace procedures.

## Knowledge Evidence

Evidence required to demonstrate competence in this unit must be relevant to and satisfy all of the requirements of the elements and performance criteria and include knowledge of:

- basic awareness of the culture of Australia's indigenous and non-indigenous peoples
- cultural awareness
- principles of equal employment opportunity (EEO) and anti-discrimination legislation as they apply to individual employees
- principles that underpin cultural awareness
- recognition of the different cultural groups in Australian society
- recognition of various international customer groups (appropriate to the sector and individual workplace)
- typical cross-cultural misunderstandings and problems that can occur in the workplace, and appropriate ways of dealing with them.

## Assessment Conditions

As a minimum, assessors must satisfy applicable regulatory requirements, which include requirements in the Standards for Registered Training Organisations, current at the time of assessment.

As a minimum, assessment must satisfy applicable regulatory requirements, which include requirements in the Standards for Registered Training Organisations, current at the time of assessment.

Assessment must occur in workplace operational situations where it is appropriate to do so; where this is not appropriate, assessment must occur in simulated workplace operational situations that replicate workplace conditions.

Assessment processes and techniques must be appropriate to the language, literacy and numeracy requirements of the work being performed and the needs of the candidate.

Resources for assessment include:

- a range of relevant exercises, case studies and/or other simulations
- relevant and appropriate materials, tools, equipment and personal protective equipment currently used in industry
- applicable documentation including workplace procedures, regulations, codes of practice and operation manuals.

## Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=df441c6e-213d-43e3-874c-0b3f7036d851>

## TLIJ2003 Apply grain protection measures

### Modification History

Release 1. This is the first release of this unit of competency in the TLI Transport and Logistics Training Package.

### Application

This unit involves the skills and knowledge required to apply grain protection procedures within grain storage facilities in accordance with workplace procedures, regulations and requirements, as part of grain storage operations in the transport and logistics industry.

It includes identifying, preparing for and applying pest control measures, monitoring the application of pest control measures, ventilating fumigated storages and maintaining records in accordance with workplace requirements.

Work is performed under some supervision, generally within a team/group environment.

No licensing, legislative or certification requirements apply to this unit at the time of publication.

### Pre-requisite Unit

Not applicable.

### Competency Field

J – Quality

### Unit Sector

Not applicable.

### Elements and Performance Criteria

#### ELEMENTS

Elements describe the essential outcomes.

#### 1 Prepare to apply pest control

#### PERFORMANCE CRITERIA

Performance criteria describe the performance needed to demonstrate achievement of the element.

1.1 Legal and workplace requirements for fumigation are followed in accordance with work order

**measures**

- 1.2 Hazards are identified, risks are assessed and control measures are implemented
- 1.3 Fumigation/spray application requirements are followed using silo and grain storage information in accordance with manufacturer instructions
- 1.4 Written records are confirmed by site measurements and observations
- 1.5 Access and site specific safety requirements to meet legislation and workplace instructions are determined
- 1.6 Equipment is checked for conformance to workplace requirements and manufacturer specifications
- 1.7 Storage is checked for gas-proofing in accordance with manufacturer and workplace instructions prior to fumigation, as required

**2 Apply pest control measures**

- 2.1 Personal protective equipment and engineering controls are used as instructed
- 2.2 Fumigant and spray applications are applied in accordance with manufacturer and workplace instructions
- 2.3 Warning signs are placed in accordance with legislative and workplace requirements
- 2.4 Application is monitored to ensure effectiveness of operation
- 2.5 Empty fumigant containers are returned to manufacturer/retailer or are disposed of in accordance with legislative and workplace requirements
- 2.6 Baits are prepared in accordance with legislation and manufacturer instructions
- 2.7 Baits are placed in accordance with site requirements and manufacturer instructions

## Foundation Skills

Foundation skills essential to performance are explicit in the performance criteria of this unit of competency.

## Range of Conditions

Range is restricted to essential operating conditions and any other variables essential to the work environment.

Non-essential conditions can be found in the Companion Volume Implementation Guide.

## Unit Mapping Information

This unit replaces and is equivalent to TLIJ2003A Apply grain protection measures.

## Links

Companion Volume implementation guides are found in VETNet -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=df441c6e-213d-43e3-874c-0b3f7036d851>

# Assessment Requirements for TLIJ2003 Apply grain protection measures

## Modification History

Release 1. This is the first release of this unit of competency in the TLI Transport and Logistics Training Package.

## Performance Evidence

Evidence required to demonstrate competence in this unit must be relevant to and satisfy all of the requirements of the elements and performance criteria on at least one occasion and include:

- applying precautions and required action to minimise, control or eliminate identified hazards
- applying relevant legislation and workplace procedures
- carrying out work in accordance with required work health and safety (WHS)/occupational health and safety (OHS) procedures and hazard control strategies, including using:
  - personal protective equipment
  - manufacturer instructions
  - fumigant and pest control chemical labels
- communicating and working effectively with others
- completing relevant documentation
- identifying pests that infest grain in grain storage facilities
- identifying, selecting and using required equipment efficiently and effectively
- implementing contingency plans
- modifying activities depending on operational contingencies, risk situations and environments
- operating and adapting to differences in equipment in accordance with operating procedures
- operating electronic communications equipment to required protocol
- reading, interpreting and following relevant instructions, procedures information and labels
- setting up and maintaining grain protection equipment
- using pest control agents in accordance with relevant Commonwealth, state/territory legislation.

## Knowledge Evidence

Evidence required to demonstrate competence in this unit must be relevant to and satisfy all of the requirements of the elements and performance criteria and include knowledge of:

- characteristics of commodity types, varieties and grades, and their identification
- emergency response procedures
- equipment applications, capacities, configurations, safety hazards and control mechanisms
- problems that may occur and appropriate action that can be taken to resolve these problems
- procedures for environmental control and disposal activities
- regulations relevant for applying grain protection measures in grain storage facilities
- relevant WHS/OHS and environmental protection procedures and guidelines
- site layout and obstacles
- storage and safe handling procedures for fumigants, chemicals and other grain protection materials
- workplace procedures and policies for applying grain protection measures.

## Assessment Conditions

As a minimum, assessors must satisfy applicable regulatory requirements, which include requirements in the *Standards for Registered Training Organisations* current at the time of assessment.

As a minimum, assessment must satisfy applicable regulatory requirements, which include requirements in the *Standards for Registered Training Organisations* current at the time of assessment.

Assessment must occur in workplace operational situations where it is appropriate to do so; where this is not appropriate, assessment must occur in simulated workplace operational situations that replicate workplace conditions.

Assessment processes and techniques must be appropriate to the language, literacy and numeracy requirements of the work being performed and the needs of the candidate.

Resources for assessment include:

- a range of relevant exercises, case studies and/or simulations
- applicable documentation including workplace procedures, regulations, codes of practice and operation manuals
- relevant materials, tools, equipment and personal protective equipment currently used in industry.

## Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=df441c6e-213d-43e3-874c-0b3f7036d851>



## TLIJ2004 Implement grain monitoring measures

### Modification History

Release 1. This is the first release of this unit of competency in the TLI Transport and Logistics Training Package.

### Application

This unit involves the skills and knowledge required to implement grain monitoring measures within grain storage facilities in accordance with workplace procedures, regulations and requirements, as part of grain storage operations in the transport and logistics industry.

It includes installing and checking grain quality control equipment, and monitoring the quality of stored commodities in accordance with workplace requirements.

Work is performed under some supervision, generally within a team/group environment.

No licensing, legislative or certification requirements apply to this unit at the time of publication.

### Pre-requisite Unit

Not applicable.

### Competency Field

J – Quality

### Unit Sector

Not applicable.

### Elements and Performance Criteria

#### ELEMENTS

Elements describe the essential outcomes.

#### 1 Install grain quality

#### PERFORMANCE CRITERIA

Performance criteria describe the performance needed to demonstrate achievement of the element.

1.1 Procedures for maintaining the quality of stored grain are identified from work plans and from considering climatic

- |  |  |
|--|--|
| <b>control equipment</b>                           | conditions, types of storage and general environment   |
|  | 1.2 Hazards are identified, risks are assessed and control measures are implemented  |
|  | 1.3 Aeration equipment is installed in accordance with workplace and site requirements to maintain appropriate grain temperature and moisture content as required  |
|  | 1.4 Inspection/sampling equipment and procedures are confirmed and implemented in accordance with workplace procedures   |
|  | 1.5 Equipment is checked to ensure correct set up and operation  |
|  | 1.6 Equipment is maintained in accordance with workplace requirements and manufacturer instructions  |
|  | 1.7 Rectification of faults in equipment is undertaken in accordance with workplace procedures   |
| <b>2 Monitor the quality of stored commodities</b> | 2.1 Stored commodities and associated facilities are inspected for sign of damage or potential for damage  |
|  | 2.2 Required repairs to facilities are reported to appropriate personnel for action  |
|  | 2.3 Monitoring for pest infestations and climatic contamination/damage to grain is regularly completed in accordance with workplace sampling/inspection procedures |
|  | 2.4 Results of sampling/inspections are recorded and reported in accordance with workplace procedures  |
|  | 2.5 Follow-up action to protect grain quality is undertaken in accordance with workplace procedures  |

## Foundation Skills

Foundation skills essential to performance are explicit in the performance criteria of this unit of competency.

## Range of Conditions

Range is restricted to essential operating conditions and any other variables essential to the work environment.

Non-essential conditions can be found in the Companion Volume Implementation Guide.

## Unit Mapping Information

This unit replaces and is equivalent to TLIJ2004A Implement grain monitoring measures.

## Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=df441c6e-213d-43e3-874c-0b3f7036d851>

# Assessment Requirements for TLIJ2004 Implement grain monitoring measures

## Modification History

Release 1. This is the first release of this unit of competency in the TLI Transport and Logistics Training Package.

## Performance Evidence

Evidence required to demonstrate competence in this unit must be relevant to and satisfy all of the requirements of the elements and performance criteria on at least one occasion and include:

- applying precautions and required action to minimise, control or eliminate identified hazards
- applying relevant legislation and workplace procedures
- communicating and working effectively with others
- completing relevant documentation
- identifying, selecting and efficiently and effectively using equipment needed
- implementing contingency plans
- modifying activities depending on operational contingencies, risk situations and environments
- monitoring and prioritising work activities in terms of planned schedule
- operating and adapting to differences in equipment in accordance with standard operating procedures
- operating electronic communications equipment to required protocol
- planning own work, predicting consequences and identifying improvements
- reading, interpreting and following relevant instructions, procedures, information and signs
- reporting and/or rectifying identified problems, faults or malfunctions promptly, in accordance with regulatory requirements and workplace procedures
- selecting and using required personal protective equipment conforming to industry and work health and safety (WHS)/occupational health and safety (OHS) standards
- setting up and maintaining grain protection equipment
- working systematically with required attention to detail without injury to self or others, or damage to goods or equipment.

## Knowledge Evidence

Evidence required to demonstrate competence in this unit must be relevant to and satisfy all of the requirements of the elements, performance criteria and include knowledge of:

- classification procedures
- emergency response procedures
- equipment applications, capacities, configurations, safety hazards and control mechanisms
- problems that may occur and appropriate action that can be taken to resolve these problems
- procedures for environmental control and disposal activities
- regulations relevant for implementing grain monitoring measures in grain storage facilities
- relevant WHS/OHS and environmental protection procedures and guidelines
- site layout and obstacles
- storage and safe handling procedures
- workplace procedures and policies for implementing grain monitoring measures.

## Assessment Conditions

As a minimum, assessors must satisfy applicable regulatory requirements, which include requirements in the *Standards for Registered Training Organisations* current at the time of assessment.

As a minimum, assessment must satisfy applicable regulatory requirements, which include requirements in the *Standards for Registered Training Organisations* current at the time of assessment.

Assessment must occur in workplace operational situations where it is appropriate to do so; where this is not appropriate, assessment must occur in simulated workplace operational situations that replicate workplace conditions.

Assessment processes and techniques must be appropriate to the language, literacy and numeracy requirements of the work being performed and the needs of the candidate.

Resources for assessment include:

- a range of relevant exercises, case studies and/or simulations
- applicable documentation including workplace procedures, regulations, codes of practice and operation manuals
- relevant materials, tools, equipment and personal protective equipment currently used in industry.

## Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=df441c6e-213d-43e3-874c-0b3f7036d851>

# TLIK2010 Use infotechnology devices in the workplace

## Modification History

Release 1. This is the first release of this unit of competency in the TLI Transport and Logistics Training Package.

## Application

This unit involves the skills and knowledge required to use infotechnology devices in the workplace in accordance with the relevant work health and safety (WHS)/occupational health and safety (OHS) regulations and workplace procedures, within the transport and logistics industry.

It includes identifying infotechnology equipment and systems; setting up, using and shutting down computer based equipment and systems; and inputting, storing and presenting files/data. It also involves implementing workplace procedures for managing and securing data.

Work is performed under some supervision, generally within a team environment.

No licensing, legislative or certification requirements apply to this unit at the time of publication.

## Pre-requisite Unit

Not applicable.

## Competency Field

K – Technology

## Unit Sector

Not applicable.

## Elements and Performance Criteria

### ELEMENTS

Elements describe the essential outcomes.

### PERFORMANCE CRITERIA

Performance criteria describe the performance needed to demonstrate achievement of the element.

- |  |   |
|--|---|
| <b>1 Identify infotechnology systems</b> | 1.1 Types of infotechnology equipment used in the |
|--|---|

work area are identified

- 1.2 Functions of equipment, component parts and accessories are identified
- 1.3 Applications for workplace activities of different infotechnology equipment and systems are interpreted
- 1.4 Routine faults in operating systems, software applications and operator errors are identified
- 1.5 Sources of information on rectifying/reporting faults with operating equipment, systems and application are identified

## **2 Access and operate computer-based equipment and systems**

- 2.1 Work environments and equipment are adjusted to meet ergonomic requirements and workplace policies and procedures
- 2.2 Systems are accessed and checked as required for viruses
- 2.3 Equipment is set up for work requirements in accordance with workplace procedures and manufacturers guidelines
- 2.4 Infotechnology equipment and software operating manuals and/or help screens are used to inform work practices
- 2.5 Required application software packages and accessories are selected and accessed
- 2.6 Required file and/or data to be accessed is identified
- 2.7 Files/data are filed in accordance with workplace procedures
- 2.8 Shut-down procedures for files, applications and equipment are followed

## **3 Input, store and present files/data**

- 3.1 Data is entered using appropriate equipment, keyboard/mouse, bar code reader, touch screen or other system
- 3.2 Accurate input is confirmed
- 3.3 Files are accessed in accordance with workplace



procedures

3.4 Data is manipulated to suit work requirements and is checked for accuracy

3.5 Saved files are accessed through relevant directories

3.6 Information and disk/s are stored as required

3.7 Information is presented using computerised projection facilities as required

#### **4 Implement workplace procedures for managing and securing data**

4.1 Security procedures are followed in accordance with workplace procedures

4.2 Precautions against the loss or corruption of data are followed in accordance with workplace procedures

## **Foundation Skills**

Foundation skills essential to performance are explicit in the performance criteria of this unit of competency.

## **Range of Conditions**

Range is restricted to essential operating conditions and any other variables essential to the work environment.

Non-essential conditions can be found in the Companion Volume Implementation Guide.

## **Unit Mapping Information**

This unit replaces and is equivalent to TLIK2010A Use infotechnology devices in the workplace.

## **Links**

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=df441c6e-213d-43e3-874c-0b3f7036d851>



# Assessment Requirements for TLIK2010 Use infotechnology devices in the workplace

## Modification History

Release 1. This is the first release of this unit of competency in the TLI Transport and Logistics Training Package.

## Performance Evidence

Evidence required to demonstrate competence in this unit must be relevant to and satisfy all of the requirements of the elements and performance criteria on at least one occasion and include:

- accessing and/or completing electronic documentation through the use of infotechnology devices in the workplace
- adapting to differences in software and equipment in accordance with standard operating procedures
- applying precautions and required action to minimise, control or eliminate hazards that may exist when using infotechnology devices in the workplace
- applying relevant legislation and workplace procedures
- identifying and using computer equipment, software, processes and procedures required within the job context
- identifying fault-finding procedures
- implementing contingency plans when using infotechnology devices in the workplace including using security and backup software and procedures
- modifying activities depending on operational contingencies, risk situations and environments
- operating infotechnology devices used within the workplace in accordance with operational requirements
- reading and interpreting instructions, procedures, information, operational instructions and manuals relevant to using infotechnology devices in the workplace
- reporting and/or rectifying identified problems, faults or malfunctions promptly, in accordance with regulatory requirements and workplace procedures
- working systematically with required attention to detail without injury to self or others, or damage to goods or equipment.

## Knowledge Evidence

Evidence required to demonstrate competence in this unit must be relevant to and satisfy all of the requirements of the elements and performance criteria and include knowledge of:

- work health and safety (WHS)/occupational health and safety (OHS) risks and hazards when using computer equipment for work tasks, and ways of controlling these risks/hazards
- relevant WHS/OHS procedures and guidelines for using computer equipment in the workplace
- typical problems that can occur when using infotechnology devices, and computer applications in the workplace and related appropriate action that can be taken to prevent or solve these problems
- workplace procedures for using computer equipment and application software appropriate for work role.

## Assessment Conditions

As a minimum, assessors must satisfy applicable regulatory requirements, which include requirements in the Standards for Registered Training Organisations, current at the time of assessment.

As a minimum, assessment must satisfy applicable regulatory requirements, which include requirements in the Standards for Registered Training Organisations, current at the time of assessment.

Assessment must occur in workplace operational situations where it is appropriate to do so; where this is not appropriate, assessment must occur in simulated workplace operational situations that replicate workplace conditions.

Assessment processes and techniques must be appropriate to the language, literacy and numeracy requirements of the work being performed and the needs of the candidate.

Resources for assessment include:

- a range of relevant exercises, case studies and/or other simulations
- relevant and appropriate materials, tools, equipment and personal protective equipment currently used in industry
- applicable documentation including workplace procedures, regulations, codes of practice and operation manuals.
- 

## Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=df441c6e-213d-43e3-874c-0b3f7036d851>

## TLIL3003 Conduct induction process

### Modification History

Release 1. This is the first release of this unit of competency in the TLI Transport and Logistics Training Package.

### Application

This unit involves the skills and knowledge required to conduct an induction process for new workers and trainees commencing employment in the workplace, in accordance with relevant regulatory requirements, operational policies and procedures for the workplace concerned.

It includes outlining the relationship between the employee and the company, establishing and explaining the requirements of the position, and completing relevant workplace documentation.

Work involves planning, coordinating and conducting an induction program to prepare workers to enter and participate in the work activities of a workplace.

Work is performed under some supervision, generally within a team environment.

No licensing, legislative or certification requirements apply to this unit at the time of publication.

### Pre-requisite Unit

Not applicable.

### Competency Field

L – Resource Management

### Unit Sector

Not applicable.

### Elements and Performance Criteria

#### ELEMENTS

Elements describe the essential outcomes.

#### PERFORMANCE CRITERIA

Performance criteria describe the performance needed to demonstrate achievement of the element.

**1 Outline the relationship between employee and the company**

- 1.1 Employee is greeted and introduced to key personnel and areas in the workplace
- 1.2 Workplace objectives, operating systems and workplace structures are explained
- 1.3 Relationship between employee's position, and the workplace structure and objectives is identified
- 1.4 Required work health and safety (WHS)/occupational health and safety (OHS), workplace procedures and employment conditions are explained
- 1.5 Sources of information and assistance for employee are identified
- 1.6 Emergency procedures are explained

**2 Establish requirements of position**

- 2.1 Job role, responsibilities and reporting relationships are explained
- 2.2 Immediate work colleagues are introduced
- 2.3 Workplace facilities and layout are shown to employee and flow of work/materials/goods and functions carried out in the area/s are explained
- 2.4 Initial training in relevant WHS/OHS, equipment and work systems is provided in accordance with workplace procedures
- 2.5 Employee rights and responsibilities in terms of equal employment opportunity, sexual harassment and anti-discrimination are explained
- 2.6 Training opportunities are organised to develop individual job roles
- 2.7 Workplace expectations of work functions and outputs are clarified
- 2.8 Opportunities for employee to clarify concerns and ask questions are provided

**3 Complete relevant workplace documentation**

- 3.1 Workplace personnel records are completed in accordance with workplace requirements
- 3.2 Tax declaration and other relevant documentation are checked for compliance with requirements

- 3.3 Employee is requested to provide any additional information needed and notes are taken of any additional actions required
- 3.4 Workplace-specific documentation is submitted to appropriate personnel as required, in accordance with workplace requirements
- 3.5 Requirements of commonwealth and state/territory legislation on equal employment opportunity, sexual harassment and anti-discrimination are fulfilled

## **Foundation Skills**

Foundation skills essential to performance are explicit in the performance criteria of this unit of competency.

## **Range of Conditions**

Range is restricted to essential operating conditions and any other variables essential to the work environment.

Non-essential conditions can be found in the Companion Volume Implementation Guide.

## **Unit Mapping Information**

This unit replaces and is equivalent to TLIL3003A Conduct induction process.

## **Links**

Companion Volume implementation guides are found in VETNet -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=df441c6e-213d-43e3-874c-0b3f7036d851>

# Assessment Requirements for TLIL3003 Conduct induction process

## Modification History

Release 1. This is the first release of this unit of competency in the TLI Transport and Logistics Training Package.

## Performance Evidence

Evidence required to demonstrate competence in this unit must be relevant to and satisfy all of the requirements of the elements and performance criteria on at least one occasion and include:

- applying precautions and required action to minimise, control or eliminate identified hazards
- applying relevant legislation and workplace procedures
- communicating and working effectively with others
- identifying and correctly using relevant equipment
- interpreting and following operational instructions
- modifying activities depending on operational contingencies, risk situations and environments
- monitoring work activities in terms of planned schedule
- operating electronic communications equipment to required protocol
- prioritising work
- reading interpreting and following relevant instructions, procedures, information and signs
- selecting and using required personal protective equipment conforming to industry and work health and safety (WHS)/occupational health and safety (OHS) standards
- working systematically with required attention to detail without injury to self or others, or damage to goods or equipment.

## Knowledge Evidence

Evidence required to demonstrate competence in this unit must be relevant to and satisfy all of the requirements of the elements and performance criteria and include knowledge of:

- customer service standards and procedures
- emergency procedures and related equipment
- employee conditions of service
- instructional methods and resources required to conduct an induction program



- personal protective equipment and instructions for its use
- site or workplace layout
- WHS/OHS policies and procedures
- workplace documentation and record keeping procedures and requirements
- workplace hazards and related hazard minimisation procedures
- workplace induction procedures and documentation requirements
- workplace structures and employee roles and responsibilities.

## Assessment Conditions

As a minimum, assessors must satisfy applicable regulatory requirements, which include requirements in the *Standards for Registered Training Organisations* current at the time of assessment.

As a minimum, assessment must satisfy applicable regulatory requirements, which include requirements in the *Standards for Registered Training Organisations* current at the time of assessment.

Assessment must occur in workplace operational situations where it is appropriate to do so; where this is not appropriate, assessment must occur in simulated workplace operational situations that replicate workplace conditions.

Assessment processes and techniques must be appropriate to the language, literacy and numeracy requirements of the work being performed and the needs of the candidate.

Resources for assessment include:

- a range of relevant exercises, case studies and/or simulations
- applicable documentation including workplace procedures, regulations, codes of practice and operation manuals
- relevant materials, tools, equipment and personal protective equipment currently used in industry.

## Links

Companion Volume implementation guides are found in VETNet -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=df441c6e-213d-43e3-874c-0b3f7036d851>

# TLILIC0003 Licence to operate a forklift truck

## Modification History

Release 1. This is a release of this unit of competency in the TLI Transport and Logistics Training Package.

## Application

This unit specifies the skills and knowledge required to operate a forklift truck safely in accordance with all relevant legislative requirements. Competence in this unit, does not in itself result in a HRWL licence to operate this plant.

Forklift truck means a powered industrial truck equipped with lifting media made up of a mast and an elevating load carriage to which is attached a pair of fork arms or other attachments that can be raised 900 mm or more above the ground, but does not include a pedestrian-operated truck or a pallet truck.

A person performing this work is required to hold a forklift truck High Risk Work Licence (HRWL).

This unit requires a person operating a forklift truck to:

- plan for the work/task
- prepare for the work/task
- perform work/task
- pack up

## Licensing/Regulatory Information

Legislative and regulatory requirements are applicable to this unit of competency.

This unit is based on the licensing requirements of Part 4.5 of the Model Work Health and Safety (WHS) Regulations and meets Commonwealth, State and Territory HRWL requirements.

The National Assessment Instrument (NAI) is the mandated assessment for the HRWL to operate the relevant licencing class as detailed in this unit.

## Pre-requisite Unit

Not applicable

## Competency Field

LIC - Licencing Units

## Unit Sector

Not applicable

## Elements and Performance Criteria

### ELEMENTS

### PERFORMANCE CRITERIA

Elements describe the essential outcomes.

Performance criteria describe the performance needed to demonstrate achievement of the element.

#### **1 Plan work/task**

- 1.1** Task requirements are identified from work orders or equivalent and confirmed with relevant people and site inspection is conducted in accordance with workplace procedures
- 1.2** Work area operating surface is assessed to determine suitability for operational use of forklift truck in accordance with workplace procedures
- 1.3** Suitability of forklift truck and attachment working load limit (WLL) is determined for the load/s and work/task requirements in accordance with manufacturer requirements and workplace procedures
- 1.4** Working area is inspected and appropriate paths for operating the forklift truck and moving and placing load/s in work area are assessed and managed in accordance with workplace procedures
- 1.5** Hazard and risk control measures are identified and reported to relevant person/s in accordance with workplace procedures
- 1.6** Traffic management plan implementation is confirmed in accordance with workplace procedures
- 1.7** Appropriate communication procedures are identified with relevant people in accordance with workplace procedures
- 1.8** All work is confirmed to ensure coverage of work/task requirements for the relevant work area is in accordance with workplace procedures

- |                                |  |
|--------------------------------|--|
| <b>2 Prepare for work/task</b> | <p><b>2.1</b> Consultation with workplace person/s is maintained to ensure workplan is clear and consistent with site requirements in accordance with safe work procedures</p> <p><b>2.2</b> Weather and work environmental conditions are assessed to determine any impact on forklift truck operations in accordance with manufacturer requirements and safe work procedures</p> <p><b>2.3</b> Risk control measures for hazards identified are checked for implementation in accordance with safe work procedures</p> <p><b>2.4</b> Forklift truck is accessed in a safe manner in accordance with manufacturer requirements and workplace procedures</p> <p><b>2.5</b> Forklift truck logbook is checked in accordance with manufacturer, regulatory requirements and safe work procedures</p> <p><b>2.6</b> Pre-start checks are carried out and any damage and defects are reported, recorded and appropriate action is taken in accordance with safe work procedures and manufacturer requirements</p> <p><b>2.7</b> Forklift truck is set up correctly with any relevant attachments as per work plan in accordance with relevant manufacturer requirements including data plate and safe work procedures</p> <p><b>2.8</b> Operational checks are carried out and any damage and defects are reported, recorded and appropriate action is taken in accordance with manufacturer requirements and safe work procedures</p> <p><b>2.9</b> Hazard and risk control measures are checked for implementation and communicated to people in the work area in accordance with safe work procedures</p> |
| <b>3 Perform work/task</b>     | <p><b>3.1</b> Weight and positioning of load is assessed to ensure compliance with forklift truck data plate requirements and in accordance with safe work procedures</p>  |

- 3.2** Forklift truck is operated safely in accordance with manufacturer requirements and safe work procedures
  - 3.3** Loads are monitored constantly when lifting, moving, lowering and placing to ensure stability of load and avoidance of hazards in accordance with safe work procedures
  - 3.4** Unplanned and unsafe situations are responded to in accordance with safe work procedures
  - 3.5** Loads are picked up, transported and placed using all forklift truck movements in accordance with safe work procedures
  - 3.6** Forklift truck is parked, switched off and isolated appropriately in accordance with manufacturer requirements and safe work procedures
- 4 Pack Up**
  - 4.1** Forklift truck shutdown procedures are carried out in accordance with manufacturer requirements and safe work procedures
  - 4.2** Forklift truck is secured to prevent unauthorised access/use in accordance with safe work procedures

## Foundation Skills

Foundation skills essential to performance are explicit in the performance criteria of this unit of competency

## Range of Conditions

Range is restricted to essential operating conditions and any other variables essential to the work environment.

Non-essential conditions may be found in the Companion Volume Implementation Guide.

## Unit Mapping Information

This unit replaces and is equivalent to TLILIC2001 Licence to operate a forklift truck

## Links

Companion Volume Implementation Guide -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=df441c6e-213d-43e3-874c-0b3f7036d851>

# Assessment Requirements for TLILIC0003 Licence to operate a forklift truck

## Modification History

Release 1. This is the first release of this unit of competency in the TLI Transport and Logistics Training Package.

## Performance Evidence

Evidence required to demonstrate competence in this unit must be relevant to and satisfy all the requirements of the elements and performance criteria on at least one occasion and include:

- applying safe operating procedures for a forklift truck including:
  - maintaining safe operating speed
  - travelling with load lowered to an appropriate height for the terrain, operating surface and visibility in relation to direction of travel
- applying relevant forklift truck manufacturer requirements and data plate information and approved modifications to attachments fitted are in accordance with manufacturer requirements
- carrying out pre-start checks, including visual inspection which must include:
  - battery charge as required by manufacturer requirements
  - checking and interpreting data plate/s are relevant to the attachment and the forklift truck
  - checking for signs of paint separation and stressed welds indicating potential structural weakness
  - document evidence of damage
  - engine / mechanical fluid level checks including fuel as required by manufacturer requirements
  - ensuring availability of correct forklift truck logbook and updating records as required
  - ensuring forklift truck tyres or other attachment/s are securely fitted
  - ensuring seat and mirrors are adjusted appropriately and seat belt is functional
  - fluid leaks
  - lights are working effectively
  - safety equipment checks
  - signage and labels to ensure they are visible and legible
  - wheels and tyres for damage/correct inflation if applicable
- conducting and applying risk and hazard assessment strategies including:
  - insufficient lighting
  - other specific hazards including dangerous goods
  - overhead hazards and fixed structures, roof beams and doorways
  - restricted and poorly ventilated areas

- surface suitability based on forklift truck and task requirements
- the risk of collision with people, moving plant and fixed structures
- weather conditions
- complying with Commonwealth, State and Territory Work Health and Safety (WHS)/Occupational Health and Safety (OHS)/Occupational Safety and Health (OSH) legislation, regulations safe work and workplace procedures
- conducting operational checks, which must ensure:
  - all controls are located, identified and tested for functionality
  - all hydraulic functions operated to maximum extension and ensuring attachment (if fitted) movements and control functions are smooth and comply with operating requirements
  - hazard warning systems (e.g. reversing beepers, lights and horns) are functional
  - recording and maintaining accurate information relating to forklift truck operations
  - safety devices as fitted
  - start-up is in accordance with manufacturer requirements
  - steering, transmission and brake functions comply with operating requirements
  - there are no unusual noises
- confirming and following traffic management plan procedures relevant to their role in the work area
- conducting relevant procedures for refuelling and isolating fuel/power source as per manufacturer requirements using appropriate PPE
- determining relevant lifting attachment to perform work/task
- determining lift requirements including:
  - positioning of unusually balanced/shaped loads
  - centre of gravity
  - dynamic nature of load
  - tyre/attachment positioning
  - weight
- ensuring risk control measures within the work area are effective as per workplace procedures
- identifying, isolating and tagging out defective equipment and reporting to authorised person/s
- interpreting and confirming relevant documentation, workplace instructions, safety information, emergency procedures for the work task and relevant area
- interpreting workplace procedures in relation to various environmental conditions
- maintaining communication with other workplace personnel through using worksite procedures including:
  - audible and visual warning devices
  - signage
  - two-way radio
  - verbal instructions
  - written instructions
- maintaining three points of contact whilst accessing and egressing forklift truck and ensuring



rungs / steps are free of hazards

- operating and monitoring safe forklift truck operations using minimum 250kg dynamic and non-dynamic loads that include:
  - aligning tynes/attachment to load
  - carrying out a lift to 75% of the maximum height
  - conducting trial lift to ensure forklift truck and load are stable, and load is safe to move
  - correctly using horns and mirrors in workplace
  - correctly positioning and using an observer to assist when operating with a load that may restrict vision or be placed out of vision of the operator
  - driving applicable to conditions and moving loads safely
  - driving a forklift truck safely with load in forward and reverse, while maintaining visibility through an obstacle course including:
    - an 'S' bend with a minimum 90 degrees left and right turn
    - ensuring load/s remains stable through pick up, transport and placement
    - forklift truck speed is appropriate to load and surroundings
    - lowering dynamic and non-dynamic loads to appropriate height for travel in forward and reverse
  - picking up, driving, manoeuvring and placing dynamic and non-dynamic loads safely at various heights within a compliant racking system
  - picking up, driving, manoeuvring and placing dynamic and non-dynamic loads safely into/onto an elevated, flat, stable area
  - tilting mast (or forks if applicable) to ensure balance of load
  - using gluts/dunnage appropriately and lowering load safely
  - using tilt and side shift (where fitted) safely to manoeuvre dynamic and non-dynamic loads into allocated space
- reporting to relevant person/s on site risk control measures that are not in place or are deficient
- setting up an exclusion zone
- securely parking forklift truck and isolating in appropriate position including:
  - minimising possible access by unauthorised person/s
  - tynes/attachment lowered to required position in accordance with manufacturer requirements
  - park brake applied
  - switching off, isolating fuel/power source and removing key according to workplace procedures
- shutting down a forklift truck in accordance with manufacturer requirements and workplace procedures

## Knowledge Evidence

Evidence required to demonstrate competence in this unit must be relevant to and satisfy all of the requirements of the elements and performance criteria and include knowledge of:

- Australian and industry standards, codes of practice and guidelines to safely operate a forklift truck
- communication procedures including:
  - audible and visual warning devices
  - hand signals
  - questioning techniques
  - signage
  - traffic warning systems
  - two-way radio
  - written instructions
- forklift truck characteristics and capabilities, manufacturer requirements and instructions for any attachments
- impact of the following on the operation of the forklift truck including:
  - failure/loss of control including brakes and steering
  - failure of equipment during forklift truck operations
  - forklift truck instability causes including:
    - deterioration of ground condition
    - overloading
    - pick up and placement of load
    - irregular loads
  - operating on ramps and uneven surfaces and in restricted spaces
  - use of forklift truck data plate and attachment data plate and appropriate methodology to determine weight of a load is appropriate for forklift truck and any attachment if fitted including the estimation or determination from:
    - labels on the actual load
    - markings on the actual load
    - paperwork such as consignment notes, running sheets and weighbridge dockets
    - weighing a carton and calculating load
- manufacturer requirements, instructions and operator's manual
- problems, and appropriate response procedures to unplanned and/or unsafe environmental conditions including:
  - wind
  - lightning
  - water/ice impacted surface/ground
  - rain
  - extreme heat
  - Ultra violet (UV) exposure
- problems and equipment faults, and implementing appropriate response procedures to unplanned and/or unsafe situations including:
  - lock out and tag out procedures
- relevant procedures for refuelling and recharging forklift truck using appropriate PPE

including:

- gas bottle
- connecting battery to charger and disconnecting battery from charger and reconnecting to forklift truck
- refuelling
- procedures for recording, reporting and maintaining workplace records and information
- risk assessment process including hierarchy of control:
  - elimination
  - substitution
  - isolation
  - engineering controls
  - administrative controls
  - personal protective equipment (PPE)
- safe use and compliance of different types of attachments including:
  - bale clamps
  - carpet spike for carpet rolls
  - drum carrier
  - jib attachment
  - paper roll clamps
  - personnel work platforms
  - rotators
  - slippers/fork extensions on tynes
- suitability and lifting capability of the attachment to be used
- shut down procedures for a forklift truck in accordance with manufacturer requirements
- traffic management plan procedures and requirements
- typical routine problems encountered operating a forklift truck and associated equipment, and adjustments required for correction
- workplace procedures including work plan which may be verbal, documented/written, or electronically generated
- work area operating surface suitability including issues with:
  - backfilled ground
  - bitumen (damaged, cracked)
  - concrete (damaged, cracked)
  - hard compacted soil
  - potholes
  - railway tracks
  - rough uneven or difficult terrain including sloping surfaces, uneven surfaces, steel decks and grates
  - soft soils
  - trench covers
- Work Health and Safety (WHS)/Occupational Health and Safety (OHS)/Occupational Safety

and Health (OSH) requirements, safe work and workplace procedures

## Assessment Conditions

As a minimum, assessors must satisfy applicable regulatory requirements, which include requirements in the Standards for Registered Training Organisations current at the time of assessment.

As a minimum, assessment must satisfy applicable regulatory requirements, which include requirements in the Standards for Registered Training Organisations current at the time of assessment.

Assessment processes and techniques must be appropriate to the language, literacy and numeracy requirements of the work being performed and the needs of the candidate.

Assessment must occur in workplace operational situations. Where this is not appropriate, assessment must occur in simulated workplace operational situations that reflect workplace conditions.

- Simulators must not be used in the assessment of this unit of competency.

Resources for assessment must include access to:

- a suitable forklift truck that complies with AS 2359 Powered industrial trucks and is in a safe/serviceable condition in accordance with manufacturer requirements
- associated equipment for forklift truck operations
- suitable dynamic and non-dynamic loads
- suitable compliant racking system
- relevant and appropriate materials, tools, equipment and personal protective equipment currently used in industry
- applicable documentation including:
  - approved codes of practice and relevant guidance material
  - relevant Australian technical standards
  - manufacturer guidelines (instructions, requirements or checklists), relevant industry standards and operating procedures (where applicable)

## Links

Companion Volume Implementation Guide -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=df441c6e-213d-43e3-874c-0b3f7036d851>

## **TLILIC0008 Licence to operate a non-slewing mobile crane (greater than 3 tonnes capacity)**

### **Modification History**

Release 1. This is the first release of this unit of competency in the TLI Transport and Logistics Training Package.

### **Application**

This unit specifies the skills and knowledge required to operate a non-slewing mobile crane with a Maximum Rated Capacity (MRC) exceeding 3 tonnes safely, in accordance with all relevant legislative responsibilities. Competence in this unit, does not in itself result in a HRWL licence to operate this plant.

A person undertaking this unit must hold:

- a current National High-Risk Work Licence (HRWL) or a certification for a specific VET course for HRWL to perform dogging

Non-slewing mobile crane means a mobile crane incorporating a boom or jib that cannot be slewed, and includes:

- an articulated mobile crane
- a locomotive crane
- but does not include vehicle tow trucks.

A person performing this work is required to hold a non-slewing mobile crane HRWL.

This unit requires a person operating non-slewing mobile crane with an MRC exceeding 3 tonnes to:

- plan the work/task
- prepare for the work/task
- perform work/task
- pack up

### **Licensing/Regulatory Information**

Legislative and regulatory requirements are applicable to this unit of competency. This unit is based on the licensing requirements of Part 4.5 of the Model Work Health and Safety (WHS) Regulations and meets Commonwealth, State and Territory HRWL requirements.

The National Assessment Instrument (NAI) is the mandated assessment for the HRWL to operate the relevant licencing class as detailed in this unit.

### **Pre-requisite Unit**

Not applicable

## Competency Field

LIC - Licencing Units

## Unit Sector

Not applicable

## Elements and Performance Criteria

### ELEMENTS

Elements describe the essential outcomes.

### PERFORMANCE CRITERIA

Performance criteria describe the performance needed to demonstrate achievement of the element.

#### 1 Plan work/task

- 1.1 Task requirements are identified from work orders or equivalent and a lift plan is confirmed with associated personnel and a site inspection is conducted in accordance with workplace procedures
- 1.2 Work area operating surface is confirmed to determine the quality of ground suitability for operational use of non-slewing mobile crane in accordance with workplace procedures
- 1.3 Non-slewing mobile crane rated capacity (RC) and the lifting gear Working Load Limit (WLL) are established for the load/s and work/task requirements in accordance with manufacturer requirements and workplace procedures
- 1.4 Appropriate paths for operating the mobile crane and moving and placing load/s in work area are assessed and determined in accordance with workplace procedures
- 1.5 Relevant hazard identification and risk elimination/control measures are applied and advised to associated personnel in accordance with workplace procedures
- 1.6 Traffic management plan implementation is confirmed and followed in accordance with workplace procedures
- 1.7 Appropriate communication procedures are identified and tested with associated personnel in accordance with workplace procedures

- |          |                              |   |
|----------|------------------------------|---|
|          | <b>1.8</b>                   | All tasks are confirmed to ensure requirements for the relevant work area in accordance with a lift plan and workplace procedures   |
| <b>2</b> | <b>Prepare for work/task</b> |   |
|          | <b>2.1</b>                   | Consultation with workplace personnel is established and maintained to ensure lift plan is clear and consistent with site requirements in accordance with a lift plan and workplace procedures  |
|          | <b>2.2</b>                   | Risk control measures for hazards identified are checked for implementation in accordance with the lift plan and safe work procedures   |
|          | <b>2.3</b>                   | Non-slewing mobile crane is accessed safely in accordance with manufacturer requirements and safe work procedures   |
|          | <b>2.4</b>                   | Pre-start crane checks are carried out and any damage and defects are reported, recorded and appropriate action is taken in accordance with manufacturer requirements and safe work procedures  |
|          | <b>2.5</b>                   | Mobile crane is set up correctly with any lifting gear as per the lift plan in accordance with relevant manufacturer requirements including load chart/s and safe work procedures   |
|          | <b>2.6</b>                   | Fly jib (if fitted) is set up as required in accordance with specific manufacturer requirements and safe work procedures  |
|          | <b>2.7</b>                   | Operational checks are carried out and any damage and defects are reported, recorded and appropriate action is taken in accordance with manufacturer requirements and safe work procedures  |
|          | <b>2.8</b>                   | Crane logbook is checked to confirm current compliance, is correct for the crane type, is completed and signed and required rectifications have been signed off in accordance with manufacturer requirements and safe work procedures |
|          | <b>2.9</b>                   | Weather and work environment conditions are assessed to determine any impact on mobile crane operations in accordance with manufacturer requirements and safe work procedures   |
| <b>3</b> | <b>Perform work/task</b>     |   |
|          | <b>3.1</b>                   | Lifts are determined within the RC of the non slewing mobile crane in accordance with the load chart/s and lift   |

plan

- 3.2** Boom/jib and hook block is safely positioned over the load following directions from associated personnel in accordance with the lift plan and safe work procedures
- 3.3** Lifting gear where required is connected to the load and used safely in accordance with the lift plan, safe work procedures and manufacturer requirements
- 3.4** Test lift is carried out in accordance with dogging and safe work procedures
- 3.5** Loads are transferred using relevant crane movements and tag lines as required, in accordance with lift plan and safe work procedures
- 3.6** Load and crane movement is monitored constantly and crane is operated safely in accordance with lift plan and safe work procedures
- 3.7** All required communication signals are correctly interpreted and followed whilst crane is operated in accordance with the lift plan and safe work procedures
- 3.8** Load is lowered and landed safely in accordance with lift plan and safe work procedures
- 3.9** Lifting gear is disconnected from load and crane is positioned safely and efficiently for next task in accordance with lift plan and safe work procedures

## **4 Pack Up**

- 4.1** Crane boom/jib, lifting gear and associated equipment is stowed and secured as required in accordance with manufacturer requirements and safe work procedures
- 4.2** Relevant motion locks and brakes are applied as required in accordance with manufacturer requirements and safe work procedures
- 4.3** Crane is shut down and secured to prevent unauthorised access/use in accordance with safe work procedures
- 4.4** Post-operational crane checks are carried out in accordance with legislative responsibilities, safe work procedures and manufacturer requirements



## Foundation Skills

Foundation skills essential to performance are explicit in the performance criteria of this unit of competency

## Range of Conditions

Range is restricted to essential operating conditions and any other variables essential to the work environment.

Non -essential conditions may be found in the Companion Volume Implementation Guide.

## Unit Mapping Information

This unit replaces and is equivalent to TLILIC3006 Licence to operate a non-slewing mobile crane (greater than 3 tonnes)

## Links

Companion Volume Implementation Guide -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=df441c6e-213d-43e3-874c-0b3f7036d851>

# Assessment Requirements for TLILIC0008 Licence to operate a non-slewing mobile crane (greater than 3 tonnes capacity)

## Modification History

Release 1. This is the first release of this unit of competency in the TLI Transport and Logistics Training Package.

## Performance Evidence

Evidence required to demonstrate competence in this unit must be relevant to and satisfy all the requirements of the elements and performance criteria on at least one occasion and include:

- applying relevant mathematical calculations in conjunction with lift plan and load chart, radius requirements and relevant lifting gear to perform work/task to enable crane to be configured for load including:
  - boom
  - fly-jib (where fitted)
  - line pull
  - mobiling
  - type of hook
  - side slope derations
  - articulation derations
- applying relevant crane movements including:
  - boom/jib up and down (luffing)
  - positioning and using main and auxiliary hook and lifting gear to connect to load safely
  - raise and lower hoist
  - telescope in and out
  - travel and articulating (as required)
- communicating with other workplace personnel through using appropriate worksite procedures including:
  - 2-way radio
  - listening
  - making and interpreting hand signals
  - questioning to confirm understanding
  - signage
  - verbal language
  - visual aids
  - whistles
  - written instructions
- complying with Commonwealth, state and territory Work Health and Safety

(WHS)/Occupational Health and Safety (OHS)/Occupational Safety and Health (OSH) legislation and safe work procedures

- completing the pre-start check including:
  - battery power level as required by manufacturer requirements
  - engine / mechanical fluid level checks as required by manufacturer requirements
  - presence of correct logbook
  - evidence of damage
  - fluid leaks
  - lights work effectively
  - locating, identifying and confirming all controls
  - mirrors and seat are adjusted appropriately
  - safety equipment checks
  - signage and labels to ensure they are visible and legible
  - checking for signs of paint separation and stressed welds indicating potential structural weakness
  - tyres and wheels for damage/wear and correct inflation (Water/Air)
  - updating records as required
  - visual damage or equipment faults
- conducting and applying risk and hazard strategies including:
  - confirming work area operating surface suitability based on crane and task requirements
  - articulation of crane
  - dynamic loads
  - ground conditions including surface and slopes
  - impact of tyre inflation/condition
  - load swing
  - overloading
  - pick and placement of load
  - asymmetric loads
  - overhead hazards
  - restricted site/s and poorly ventilated area/s
  - risk of collision with people, moving plant and fixed structures
  - adequate lighting
  - weather conditions
- completing operational checks ensuring:
  - all controls are located, identified and tested for functionality
  - all hydraulic functions are operated
  - lifting gear movements and control functions are smooth and comply with lift plan
  - hazard warning systems, safety, audible and visual warning devices are checked to ensure they are functional including:
    - reversing beepers

- lights
- horns
- crane computer alarm (where fitted)
- anti-two block alarms (where fitted)
- start-up is in accordance with manufacturer requirements and workplace procedures
- there are no unusual noises
- steering, transmission and brake functions comply with operating requirements
- confirming and following traffic management plan procedures relevant to crane operator role in the work area
- determining any defects or faults with operation of crane and reporting to relevant person/s
- ensuring risk control measures within the work area are effective as per workplace procedures
- ensuring stability of load and avoidance of hazards by applying best mobile practice including:
  - allowing for boom deflection
  - boom/jib as low as possible
  - boom/jib in line with crane
  - carrying load near to ground surface
  - crane stability whilst manoeuvring load into position with drive/steering wheels and articulating as required
  - gently accelerating and braking to minimise load swing
  - lowering load safely and stably onto appropriate dunnage taking into consideration swing and restrictions of area
  - minimum boom/jib length
  - minimum speed
  - using handheld taglines/bridling
- following directions of dogger or rigger
- interpreting and confirming relevant documentation for the work task and relevant area
- inputting crane configuration into crane computer (where fitted) and checking operation to accurately reflect crane configuration
- interpreting and acting on communications signals including:
  - hoist down - hand and whistle and radio
  - hoist up - hand and whistle and radio
  - luff boom down - hand and whistle and radio
  - luff boom up - hand and whistle and radio
  - articulate left - hand and whistle and radio
  - articulate right - hand and whistle and radio
  - stop - hand and whistle and radio
  - telescope in - hand and whistle and 2-way radio (where manufacturer requirements allow)
  - telescope out - hand and whistle and 2-way radio (where manufacturer requirements allow)

- travel - hand and radio
- maintaining three points of contact whilst accessing crane and ensure rungs / steps are free of hazards
- monitoring load disconnection from hook is safe and ensuring no movement of controls
- observing relevant communication signals from relevant person
- operating an articulated non-slewing mobile crane with a rated capacity (RC) of 12 tonnes or greater to lift four different loads using the main hook through an obstacle course using all crane operational controls while the load is in full view of the crane operator. Loads must consist of:
  - a load of >50% of the Rated Capacity (RC) of the crane with a boom length of >75%, and
  - a round load with a minimum diameter of 300 mm and minimum length of 3 m that requires a dogger to sling, and
  - an asymmetrical load that requires a dogger to sling, and
  - travelling with a load of stillage containing at least ten scaffolding standards or containing a load of steel pipes of equivalent weight that requires a dogger to sling and a boom length of <75%
- positioning the non-slewing mobile crane for safe operation for:
  - application of the task
  - manoeuvring in the workplace
  - aligning of crane boom to the load
  - stability of the non-slewing mobile crane and the load whilst driving to load set down position
- recording and maintaining accurate information relating to crane operations
- reporting to relevant person/s on site risk control measures that are not in place or deficient
- setting up of:
  - fly jib (where fitted)
  - manual boom section (where fitted)
- setting up and validating an exclusion zone
- shutting down a non-slewing mobile crane in accordance with manufacturer requirements and workplace procedures
- stabilising a non-slewing mobile crane for operation by ensuring level and articulation (if required) is checked and within deration load chart requirements
- test-lifting load just clear of lifting plane to allow for checks to be safely made in consultation with associated personnel to ensure:
  - slinging is correct
  - all crane equipment is functioning properly
  - load centre of gravity is correct
  - loads of unusual shape or weight distribution are correctly slung
- test-lifting load just clear of lifting plane to allow for checks of crane computer (where fitted) to ensure:
  - load measuring equipment can be used to verify calculated weight of load
  - near capacity loads do not overload crane

## Knowledge Evidence

Evidence required to demonstrate competence in this unit must be relevant to and satisfy all of the requirements of the elements and performance criteria and include knowledge of:

- appropriate worksite communication procedures including:
  - listening
  - hand signals
  - questioning techniques
  - signage
  - two-way radios
  - written instructions
  - whistles
- crane configuration mathematical calculations to:
  - estimate loads
  - establish counterweight/s requirements (where fitted)
  - radius requirements
  - relevant lifting gear to perform work/task
- characteristics and impact of factors affecting non-slewing mobile crane stability whilst mobilising loads including:
  - side slope derations
  - articulation derations of crane
  - correct tyre pressure (inflation/condition)
  - driving safely on roadways
  - pick up and carry the load
- crane and lifting gear load chart/s and manufacturer requirements
- lift impacting factors including:
  - centre of gravity
  - dynamic nature of load
  - deflection of boom
  - length
  - radius of lift
  - weight
  - side slope derations
  - articulation derations of crane
  - tyre inflation pressures
- hazards including:
  - pack up and crane stability, crane tipping and demolition sites
  - ground stability including ground condition, recently filled trenches and slopes
  - insufficient lighting
  - obstacles or obstruction

- catching load swing appropriately
- other specific hazards and dangerous materials
- overhead hazards including:
  - electric lines
  - service pipes
  - fixed structures
  - Vegetation (Trees)
- traffic including pedestrians, vehicles and other plant
- operations on unusual, uneven or difficult terrains
- impact of factors affecting non-slewing mobile crane stability including:
  - overloading
  - pick up and placement of load
  - unbalanced loads
  - articulation of crane
  - correct tyre pressures (inflation/condition)
  - side slope derations
- manufacturer requirements and instructions on shutting down and packing up crane
- mobile non-slewing crane characteristics and capabilities to allow crane configuration to suit a range of loads
- relevant workplace instructions, safety information, emergency procedures
- relevant documentation requirements and procedures for recording, reporting and maintaining workplace records and information
- risk assessment management and mitigation strategies including hierarchy of control:
  - elimination
  - substitution
  - isolation
  - engineering controls
  - administrative controls
  - personal protective equipment (PPE)
- roles and responsibilities of duty holders as per legislative obligations of Work Health and Safety (WHS)/Occupational health and Safety (OHS)/Occupational Safety and Health (OSH) requirements and safe work/workplace procedures
- prestart and operational checks required for a non-slewing mobile crane
- starting procedure of crane as per manufacturer requirements
- set up of:
  - jib
  - fly jib (where fitted)
  - manual boom section (where fitted)
- weather bureau forecasts and environmental conditions that could impact operation
- workplace standards, requirements, policies and procedures for conducting operations for the mobile non-slewing crane

- problems and applying appropriate response procedures to unplanned and/or unsafe situations and environmental conditions
- work area suitability based on relevant ground reports including:
  - backfilled ground
  - bitumen
  - concrete
  - hard compacted soil
  - pre-contaminated soils
  - rock
  - rough uneven ground
  - soft soils

## Assessment Conditions

As a minimum, assessors must satisfy applicable regulatory requirements, which include requirements in the Standards for Registered Training Organisations current at the time of assessment.

As a minimum, assessment must satisfy applicable regulatory requirements, which include requirements in the Standards for Registered Training Organisations current at the time of assessment.

Assessment processes and techniques must be appropriate to the language, literacy and numeracy requirements of the work being performed and the needs of the candidate.

Assessment must occur in workplace operational situations. Where this is not appropriate, assessment must occur in simulated workplace operational situations that reflect workplace conditions.

- Simulators must not be used in the assessment of this unit of competency.

Resources for assessment must include access to:

- non-slewing articulated mobile crane with an MRC greater than 12 tonnes in safe/serviceable working order in accordance with manufacturer specifications
- appropriate loads as outlined in the performance evidence requirements
- associated personnel to sling and direct loads including:
  - dogger or rigger
- communications equipment including:
  - two-way radios
  - whistles
- personal protective equipment (PPE)
- relevant documentation for operating a non-slewing mobile crane over 3 tonnes including:
  - approved codes of practice and guidance
  - Australian Standards
  - checklists



- industry operating procedures
- relevant industry standards (where applicable)
- logbook
- manufacturer guidelines (instructions, specifications or checklists)

## Links

Companion Volume Implementation Guide -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=df441c6e-213d-43e3-874c-0b3f7036d851>

# **TLILIC2001 Licence to operate a forklift truck**

## **Modification History**

Release 1. This is the first release of this unit of competency in the TLI Transport and Logistics Training Package.

## **Application**

This unit specifies the skills and knowledge required to operate a forklift truck safely.

Forklift truck means a powered industrial truck equipped with lifting media made up of a mast and an elevating load carriage to which is attached a pair of fork arms or other arms that can be raised 900 mm or more above the ground, but does not include a pedestrian-operated truck or a pallet truck.

A person performing this work is required to hold a forklift truck high risk work (HRW) licence.

This unit requires a person operating a forklift truck to plan the work, conduct routine checks on a forklift truck, shift loads in a safe manner, and safely shut down and secure equipment after completing operations.

## **Licensing/Regulatory Information**

This unit is based on the licensing requirements of Part 4.5 of the Model Work Health and Safety (WHS) Regulations, HRW and meets Commonwealth, state and territory HRW licensing requirements.

Any alteration to this unit would result in a unit that would not be acceptable to work health and safety (WHS)/occupational health and safety (OHS) regulators for the purpose of licensing.

## **Pre-requisite Unit**

Not applicable.

## **Competency Field**

LIC – Licensing

## Unit Sector

Not applicable.

## Elements and Performance Criteria

ELEMENTS	PERFORMANCE CRITERIA
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
<b>1 Plan work</b>	<ul style="list-style-type: none"><li>1.1 Potential workplace hazards are identified</li><li>1.2 Risk control measures are identified consistent with regulatory requirements and the hierarchy of control</li><li>1.3 Appropriate forklift truck is selected in accordance with load and workplace conditions</li><li>1.4 Working area is inspected to determine appropriate paths for moving loads and forklift truck in accordance with workplace conditions</li><li>1.5 Methods for communicating are identified and confirmed in accordance with workplace procedures</li></ul>
<b>2 Conduct routine checks</b>	<ul style="list-style-type: none"><li>2.1 Prior to operation, forklift truck is visually checked for any damage or defects</li><li>2.2 All signage and labels are checked to ensure they are visible and legible, in accordance with the appropriate standard</li><li>2.3 All controls are located, identified and confirmed</li><li>2.4 Pre-start operational checks are carried out in accordance with manufacturer specifications and workplace procedures</li><li>2.5 Forklift truck is started in accordance with manufacturer specifications and workplace procedures, and is checked for any abnormal noise</li><li>2.6 Post-start operational checks are carried out in accordance with manufacturer specifications and workplace procedures</li></ul>

- 2.7 All forklift truck functions and safety devices are tested to their maximum in accordance with manufacturer specifications and workplace procedures
- 2.8 Issues, defects and damage identified during routine checks are reported and recorded in accordance with workplace procedures, and appropriate action is taken

### **3 Shift load**

- 3.1 Weight of load is assessed to ensure compliance with forklift truck data plate specifications
- 3.2 Appropriate hazard prevention/control measures are implemented and communicated to personnel in the work area
- 3.3 Forklift truck is operated at a safe speed in accordance with manufacturer specifications and workplace procedures
- 3.4 Loads are moved and placed to ensure stability of material and avoidance of hazards
- 3.5 Load movement is monitored constantly to ensure safety of personnel and load, and structural stability
- 3.6 Unplanned and/or unsafe situations are responded to in accordance with workplace procedures and emergency plans

### **4 Shut down and secure forklift truck**

- 4.1 Forklift truck is parked to avoid hazards
- 4.2 Forklift truck is shut down in accordance with manufacturer specifications and workplace procedures
- 4.3 Routine post-operational forklift truck checks are carried out in accordance with manufacturer specifications and workplace procedures
- 4.4 Forklift truck is secured to prevent unauthorised access/use
- 4.5 All defects and damage are reported and recorded in accordance with manufacturer specifications and workplace procedures, and appropriate action is taken

## Foundation Skills

The language, literacy, numeracy and employment skills that are essential to performance that are not explicit in the unit are listed below.

Skill	Performance feature
Employment skills to:	<ul style="list-style-type: none"><li>operate a forklift truck in different types of workplaces transferring key principles of safe operation to different contexts</li><li>improve own performance in safely and efficiently operating a forklift truck by incorporating learnings from different workplaces and different conditions into current performance</li></ul>
Numeracy skills to:	<ul style="list-style-type: none"><li>interpret numerical information including:<ul style="list-style-type: none"><li>selecting appropriate forklift in accordance with load and workplace conditions</li><li>load weight assessment, to ensure compliance with forklift truck data plate specifications</li><li>controlling and monitoring instrument readings</li></ul></li></ul>
Language skills to:	<ul style="list-style-type: none"><li>use and interpret vocabulary specific to forklift truck operations and workplace procedures to communicate with other workplace personnel</li><li>use non-verbal feedback to support effective communication</li><li>use relevant communications conventions</li></ul>
Literacy (reading ) skills to:	<ul style="list-style-type: none"><li>interpret documentation that includes technical specificity including:<ul style="list-style-type: none"><li>forklift truck data plate</li><li>plant operation manuals and manufacturer specifications</li><li>workplace procedures, including emergency plan</li><li>workplace signage and labels</li></ul></li></ul>
Literacy (writing) skills to:	<ul style="list-style-type: none"><li>accurately record and maintain information relating to operating a forklift truck, including:<ul style="list-style-type: none"><li>incident reports</li><li>vehicle checking and maintenance records</li></ul></li></ul>
Self-management skills	<ul style="list-style-type: none"><li>implement risk control measures</li><li>initiate emergency management strategies</li></ul>

## Range of Conditions

Range is restricted to essential operating conditions and any other variables essential to the work environment.

Non-essential conditions can be found in the Companion Volume Implementation Guide.

## Unit Mapping Information

This unit is equivalent to TLILIC2001A Licence to operate a forklift truck

## Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=df441c6e-213d-43e3-874c-0b3f7036d851>

# Assessment Requirements for TLILIC2001 Licence to operate a forklift truck

## Modification History

Release 1. This is the first release of this unit of competency in the TLI Transport and Logistics Training Package.

## Performance Evidence

A person who demonstrates competency in this unit must provide evidence of safely operating a forklift truck and satisfy all of the unit elements, performance criteria and foundations skills requirements on at least one occasion including:

- applying risk assessment and hazard control strategies, including hierarchy of control as applied to safely operating a forklift truck
- carrying out post-start operational checks, which must ensure:
  - attachment movements and control functions are smooth and comply with operating requirements
  - hazard warning systems (e.g. lights and horns) are functional
  - safety devices are checked, including
    - deadman's switch
    - emergency descent device (hydraulic)
    - reversing beepers
  - start-up is in accordance with procedures
  - steering, transmission and brake functions comply with operating requirements
- carrying out pre-start operational checks, which must include:
  - battery charge checks, as required
  - ensuring availability of logbook, records, handbook and/or operating manuals
  - fitting and interpreting forklift truck data plate
  - fluid checks
  - forklift truck attachment security checks
  - identifying approved modifications and/or attachments fitted, to manufacturer specifications in accordance with forklift truck or attachment data plate
  - locating, identifying and confirming all controls
  - safety equipment checks
  - signage and label visibility and legibility checks
  - updating records as required
- communicating with other workplace personnel through
  - using appropriate worksite protocols

- listening
- making and interpreting hand signals
- questioning to confirm understanding
- signage
- verbal and non-verbal language
- written instructions
- complying with Commonwealth, state and territory work health and safety (WHS)/occupational health and safety (OHS) legislation and regulations
- conducting and monitoring safe forklift truck operations that include moving loads safely, driving and manoeuvring, picking up and placing loads at various stack heights and carrying out all functions to the maximum height and load capacity
- driving a forklift truck with load in forward and reverse, while maintaining visibility
- planning and preparing for forklift truck operations including:
  - conducting a workplace risk assessment
  - identifying hazards associated with operating a forklift truck, which must include
    - forklift truck instability (e.g. due to overloading, poor load placement, irregular loads)
    - ground conditions (e.g. condition of pavement, slopes)
    - insufficient lighting
    - overhead hazards (e.g. electric lines, service pipes)
    - traffic (e.g. pedestrians, vehicles, other plant) and the risk of collision with people, moving plant and fixed structures
    - weather conditions (e.g. wind, lightning, rain)
  - selecting hazard prevention strategies in accordance with the hierarchy of control
  - putting in place effective controls for identified hazards
  - visually checking a forklift truck for any damage or defects prior to operation including
    - evidence of damage
    - leaks
    - structural weaknesses (including paint separation or stressed welds)
- receiving and interpreting workplace instructions, safety information and emergency procedures
- shutting down a forklift truck in accordance with manufacturer specifications and workplace procedures including
  - parking in a suitable location away from dangerous areas
  - correctly positioning fork arms (tips down, tilted forward, lowered to ground)
  - selecting appropriate transmission/gear for parking (relevant to transmission type)
  - applying hand/parking brake
  - turning off engine power
  - removing ignition key as required
  - shutting off LPG gas cylinder valve as required



- securing equipment in accordance with manufacturer specifications and against unauthorised operation
- securing site
- ensuring access ways are clear
- identifying and segregating defective equipment and reporting to authorised personnel
- connecting batteries to charger as required
- verifying problems and equipment faults, and implementing appropriate response procedures to unplanned and/or unsafe situations including
  - environmental conditions (e.g. wind, lightning, storms)
  - failure/loss of control (e.g. brakes and steering)
  - failure of equipment (e.g. hydraulic system)
  - forklift truck instability (e.g. due to deterioration of ground condition, overloading, poor load placement, irregular loads).

## Knowledge Evidence

Evidence required to demonstrate competence in this unit must be relevant to and satisfy all of the requirements of the elements and performance criteria and include knowledge of:

- Australian and industry standards relevant to operating a forklift truck
- Commonwealth, state or territory WHS/OHS legislation and approved codes of practice in relation to one's own responsibilities
- forklift truck characteristics and capabilities (including use of load data plates)
- forklift truck operations and safe operating techniques
- hierarchy of control:
  - elimination
  - substitution
  - isolation
  - engineering controls
  - administrative controls
  - personal protective equipment (PPE)
- methodology to determine weight of a load including the estimation or determination from labels, markings or load paperwork such as:
  - control labels
  - forklift data plates/labels
  - forklift warning decals
- organisational and workplace standards, requirements, policies and procedures for operating a forklift truck
- procedures for recording, reporting and maintaining workplace records and information
- relevant Australian and industry standards, codes of practice and guidelines to safely

operate a forklift truck

- risk control measures including:
  - barricades and traffic control (e.g. traffic management plan)
  - compliance with permit condition requirements from electrical supply authority, including
    - adequate illumination
    - disconnected power
    - excavation safeguards
    - insulated electric lines
    - maintaining safety observer zone
    - movement of obstructions
    - observing limits of approach
    - pedestrian control (barricades, signs, etc.)
    - power disconnection or compliance with electrical supply authority requirements
    - safety tags on electrical switches/isolators
    - using safety observer inside exclusion zone
    - using personal protective equipment
- selecting forklift truck to suit load and workplace conditions
- typical routine problems encountered operating a forklift truck and equipment, and adjustments required for correction.

## Assessment Conditions

Assessments must be conducted by an assessor accredited for this high risk work (HRW) licence class in the Commonwealth/state/territory where the licence will be obtained (i.e. an assessor authorised by a Commonwealth/state/territory WHS/OHS regulator).

As a minimum, assessors must satisfy applicable regulatory requirements, which may include requirements in the Standards for *Registered Training Organisations* current at the time of assessment.

Assessment processes and techniques must be appropriate to the language, literacy and numeracy requirements of the work being performed and all assessment must be conducted in the English language.

Assessment of performance must be undertaken in the workplace and/or under realistic workplace conditions which typically reflect:

- performing tasks/activities within timelines that would be expected in a workplace
- standard and authorised work practices, safety requirements and environmental constraints
- using full-scale equipment

Forklift truck operation assessment must be conducted in a working zone in accordance with state/territory arrangements.

If the working zone is located at a 'live' site, assessment should continue in all weather conditions unless the safety of the candidate or others could be compromised.

Simulators must **not** be used in the assessment of this unit of competency.

Accredited assessors are responsible for ensuring that candidates have access to:

- a suitable forklift truck that complies with AS 2359 Powered industrial trucks and is in a safe condition
- associated equipment appropriate to forklift truck operations
- suitable loads
- required personal protective equipment (PPE) for the purpose of Performance Assessment
- relevant workplace procedures and standards for operating a forklift truck, including:
  - approved codes of practice and guidance
  - relevant Australian and international technical standards
  - manufacturer guidelines (instructions, specifications or checklists) for the purpose of Performance Assessment
  - relevant industry standards and operating procedures (where applicable)
  - safe work method statements (SWMS), as required.

## Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=df441c6e-213d-43e3-874c-0b3f7036d851>

# TLILIC2014 Licence to drive a light rigid vehicle

## Modification History

**Release 2.** This is the second release of this unit of competency in the TLI Transport and Logistics Training Package.

Modification of assessment conditions to remove an implementation barrier.

**Release 1.** This is the first release of this unit of competency in the TLI Transport and Logistics Training Package.

## Application

This unit involves the skills and knowledge required to obtain a licence to drive a light rigid vehicle. It includes systematically and efficiently controlling all vehicle functions, monitoring traffic and road conditions, managing vehicle condition and performance, and effectively managing hazardous situations.

Types of light rigid vehicles include:

- a rigid truck above 4.5 tonnes GVM but less than or equal to 8 tonnes GVM or
- a rigid bus with less than or equal to 8 tonnes GVM or seats more than 12 adults, including the driver.

Assessment of this unit will be undertaken within a licensing examination conducted by, or under the authority of, the relevant state/territory driver licensing authority.

This unit applies to driving that is carried out in accordance with relevant state/territory driver licensing authority licence requirements and regulations for light rigid vehicles.

Driving is performed with limited or minimum supervision, and with limited accountability and responsibility for self and others in achieving the prescribed outcomes.

Driving involves the application of routine vehicle driving principles and procedures to maintain safety and to operate a light rigid vehicle across a variety of driving contexts.

The primary legislative requirements applicable to this unit of competency are state/territory legislation in relation to road use and driver licensing.

This unit addresses the knowledge and skills necessary for the granting of a Light Rigid Driver Licence.

Being awarded this unit of competency is a necessary requirement to obtain a Light Rigid Driver Licence but is only one of several criteria. Prospective licence applicants should check with the state/territory driver licensing authority for other criteria (such as licence tenure and medical fitness) to confirm other eligibility requirements before undertaking training and/or assessment.

## Pre-requisite Unit

Not applicable.

## Competency Field

LIC – Licensing

## Unit Sector

Not applicable.

## Elements and Performance Criteria

### ELEMENTS

Elements describe the essential outcomes.

### PERFORMANCE CRITERIA

Performance criteria describe the performance needed to demonstrate achievement of the element.

#### **1 Drive a light rigid vehicle**

- 1.1 Light rigid vehicle is started, steered, manoeuvred, positioned and stopped in accordance with traffic regulations, manufacturer instructions and relevant vehicle handling procedures
- 1.2 Engine power is managed to ensure efficiency and performance, and to minimise engine and transmission damage
- 1.3 Braking system of light rigid vehicle is managed and operated efficiently to ensure effective control of vehicle under all conditions
- 1.4 Driving hazards are identified and/or anticipated and avoided or controlled through defensive driving
- 1.5 Light rigid vehicle is driven in reverse, maintaining visibility and achieving accurate positioning
- 1.6 Light rigid vehicle is parked, shutdown and safely secured in accordance with traffic regulations
- 1.7 Load is safely and effectively restrained

#### **2 Monitor traffic and road conditions**

- 2.1 Traffic and road conditions are constantly monitored and acted on to enable safe operation and to ensure no injury to people or damage to property, equipment, loads and facilities
- 2.2 Interaction with other road users is conducted courteously in accordance with road rules to ensure safe and efficient traffic flow

#### **3 Monitor and**

- 3.1 Vehicle performance is maintained through pre-operational

**maintain vehicle  
performance**

inspections and vehicle checks

3.2

Appropriate signage, lights and equipment are checked for operational effectiveness and for conformity to prescribed traffic regulations

## Foundation Skills

Foundation skills essential to performance are explicit in the performance criteria of this unit of competency.

## Range of Conditions

Range is restricted to essential operating conditions and any other variables essential to the work environment.

Non-essential conditions can be found in the Companion Volume Implementation Guide.

## Unit Mapping Information

This unit replaces and is equivalent to TLILIC2014B Licence to drive a light rigid vehicle.

## Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=df441c6e-213d-43e3-874c-0b3f7036d851>

# Assessment Requirements for TLILIC2014 Licence to drive a light rigid vehicle

## Modification History

**Release 2.** This is the second release of this unit of competency in the TLI Transport and Logistics Training Package.

Modification of assessment conditions to remove an implementation barrier.

**Release 1.** This is the first release of this unit of competency in the TLI Transport and Logistics Training Package.

## Performance Evidence

Evidence required to demonstrate competence in this unit must be relevant to and satisfy all of the requirements of the elements and performance criteria on at least one occasion and include:

- anticipating and monitoring traffic hazards and taking appropriate action
- applying precautions and required action to eliminate, minimise or control identified hazards
- applying relevant procedures that reflect legislative requirements
- carrying out pre-operational vehicle checks including:
  - checking and topping up fluid levels
  - checking:
    - brakes
    - operation of vehicle lights and indicators
    - tyre pressures
  - visually checking vehicle
- communicating effectively with others
- handling vehicle including:
  - accelerating and braking
  - managing engine performance
  - operating vehicle controls, instruments and indicators
  - positioning and stopping a vehicle
  - reversing a vehicle
  - starting a vehicle
  - steering and manoeuvring a vehicle
  - using defensive driving techniques
- negotiating a range of complex traffic infrastructure (such as roundabouts, traffic lights, stalemate intersections, railway level crossings)
- reading and interpreting relevant instructions, procedures, information and signs.

## Knowledge Evidence

Evidence required to demonstrate competence in this unit must be relevant to and satisfy all of the requirements of the elements and performance criteria and include knowledge of:

- driving hazards and related defensive driving techniques
- efficient driving techniques
- engine power management and safe driving strategies
- light rigid vehicle controls, instruments and indicators, and their use
- light rigid vehicle handling procedures
- pre-operational checks carried out on vehicle and related action
- relevant state/territory driver licensing authority road rules, regulations, permit and licence requirements.

## Assessment Conditions

As a minimum, assessors must satisfy applicable regulatory requirements, which include requirements in the *Standards for Registered Training Organisations* current at the time of assessment.

As a minimum, assessment must satisfy applicable regulatory requirements, which include requirements in the *Standards for Registered Training Organisations* current at the time of assessment.

Practical driving aspects must be assessed in a vehicle typical of the class as approved by the state/territory driver licensing authority. The use of simulators for driver testing is not permitted.

The assessor must use the mandatory assessment tool provided by the state/territory driver licensing authority to conduct the assessment for this unit, in accordance with licensing authority requirements

The state/territory driver licensing authority may prescribe approved routes, which must be used for the final assessment.

Assessment must occur in the following traffic and road conditions:

- on open and/or private roads with moderate inclines and declines
- typical weather conditions.

and may also include traffic and road conditions at a depot, base or warehouse.

Resources for assessment include:

- a range of relevant exercises, case studies and/or simulations
- applicable documentation including workplace procedures, regulations, codes of practice and operation manuals
- appropriate range of relevant on-road operational or workplace situations
- relevant materials, tools, equipment and personal protective equipment currently used in industry.



## Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=df441c6e-213d-43e3-874c-0b3f7036d851>

# TLILIC2015 Licence to drive a medium rigid vehicle

## Modification History

**Release 2.** This is the second release of this unit of competency in the TLI Transport and Logistics Training Package.

Modification of assessment conditions to remove an implementation barrier.

**Release 1.** This is the first release of this unit of competency in the TLI Transport and Logistics Training Package.

## Application

This unit involves the skills and knowledge required to obtain a licence to drive a medium rigid vehicle. It includes systematically and efficiently controlling all vehicle functions, monitoring traffic and road conditions, managing vehicle condition and performance, and effectively managing hazardous situations.

Types of medium rigid vehicles include:

- two axle rigid trucks, not being a prime mover, above 8 tonnes GVM or
- a two axle bus above 8 tonnes GVM.

Assessment of this unit will be undertaken within a licensing examination conducted by, or under the authority of, the relevant state/territory driver licensing authority.

This unit applies to driving that is carried out in accordance with relevant state/territory driver licensing authority licence requirements and regulations for medium rigid vehicles.

Driving is performed with limited or minimum supervision, and with limited accountability and responsibility for self and others in achieving the prescribed outcomes.

Driving involves the application of routine vehicle driving principles and procedures to maintain safety and to operate a medium rigid vehicle across a variety of driving contexts.

The primary legislative requirements applicable to this unit of competency are state/territory legislation in relation to road use and driver licensing.

This unit addresses the knowledge and skills necessary for the granting of a Medium Rigid Driver Licence.

Being awarded this unit of competency is a necessary requirement to obtain a Medium Rigid Driver Licence but is only one of several criteria. Prospective licence applicants should check with the state/territory driver licensing authority for other criteria (such as licence tenure and medical fitness) to confirm other eligibility requirements before undertaking training and/or assessment.

## Pre-requisite Unit

Not applicable.

## Competency Field

LIC – Licensing

## Unit Sector

Not applicable.

## Elements and Performance Criteria

ELEMENTS	PERFORMANCE CRITERIA
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
<b>1 Drive a medium rigid vehicle</b>	<p>1.1 Medium rigid vehicle is started, steered, manoeuvred, positioned and stopped in accordance with traffic regulations, manufacturer instructions and relevant vehicle handling procedures</p> <p>1.2 Engine power is managed to ensure efficiency and performance, and to minimise engine and transmission damage</p> <p>1.3 Braking system of medium rigid vehicle is managed and operated efficiently to ensure effective control of vehicle under all conditions</p> <p>1.4 Driving hazards are identified and/or anticipated and avoided or controlled through defensive driving</p> <p>1.5 Medium rigid vehicle is driven in reverse, maintaining visibility and achieving accurate positioning</p> <p>1.6 Medium rigid vehicle is parked, shutdown and safely secured according to traffic regulations</p> <p>1.7 Load is safely and effectively restrained</p>
<b>2 Monitor traffic and road conditions</b>	<p>2.1 Traffic and road conditions are constantly monitored and acted on to enable safe operation and to ensure no injury to people or damage to property, equipment, loads and facilities</p> <p>2.2 Interaction with other road users is conducted courteously in accordance with road rules to ensure safe and efficient traffic flow</p>
<b>3 Monitor and</b>	<p>3.1 Vehicle performance is maintained through pre-operational</p>

**maintain vehicle performance**

inspections and vehicle checks

3.2

Appropriate signage, lights and equipment are checked for operational effectiveness and for conformity to prescribed traffic regulations

## Foundation Skills

Foundation skills essential to performance are explicit in the performance criteria of this unit of competency.

## Range of Conditions

Range is restricted to essential operating conditions and any other variables essential to the work environment.

Non-essential conditions can be found in the Companion Volume Implementation Guide.

## Unit Mapping Information

This unit is equivalent to TLILIC2015B Licence to drive a medium rigid vehicle.

## Links

Companion Volume implementation guides are found in VETNet -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=df441c6e-213d-43e3-874c-0b3f7036d851>

# Assessment Requirements for TLILIC2015 Licence to drive a medium rigid vehicle

## Modification History

**Release 2.** This is the second release of this unit of competency in the TLI Transport and Logistics Training Package.

Modification of assessment conditions to remove an implementation barrier.

**Release 1.** This is the first release of this unit of competency in the TLI Transport and Logistics Training Package.

## Performance Evidence

Evidence required to demonstrate competence in this unit must be relevant to and satisfy all of the requirements of the elements and performance criteria on at least one occasion and include:

- anticipating and monitoring traffic hazards and taking appropriate action
- applying precautions and required action to eliminate, minimise or control identified hazards
- applying relevant procedures that reflect legislative requirements
- carrying out pre-operational vehicle checks including:
  - checking and topping up fluid levels
  - checking:
    - brakes
    - operation of vehicle lights and indicators
    - tyre pressures
  - visually checking vehicle
- communicating effectively with others
- handling vehicle including:
  - accelerating and braking
  - managing engine performance
  - operating vehicle controls, instruments and indicators
  - positioning and stopping a vehicle
  - reversing a vehicle
  - starting a vehicle
  - steering and manoeuvring a vehicle
  - using defensive driving techniques
- negotiating a range of complex traffic infrastructure (such as roundabouts, traffic lights, stalemate intersections, railway level crossings)
- reading and interpreting relevant instructions, procedures, information and signs.

## Knowledge Evidence

Evidence required to demonstrate competence in this unit must be relevant to and satisfy all of the requirements of the elements and performance criteria and include knowledge of:

- driving hazards and related defensive driving techniques
- efficient driving techniques
- engine power management and safe driving strategies
- medium rigid vehicle controls, instruments and indicators, and their use
- medium rigid vehicle handling procedures
- pre-operational checks carried out on vehicle and related action
- relevant state/territory driver licensing authority road rules, regulations, permit and licence requirements.

## Assessment Conditions

As a minimum, assessors must satisfy applicable regulatory requirements, which include requirements in the *Standards for Registered Training Organisations* current at the time of assessment.

As a minimum, assessment must satisfy applicable regulatory requirements, which include requirements in the *Standards for Registered Training Organisations* current at the time of assessment.

Practical driving aspects must be assessed in a vehicle typical of the class as approved by the state/territory driver licensing authority. The use of simulators for driver testing is not permitted.

The assessor must use the mandatory assessment tool provided by the state/territory driver licensing authority to conduct the assessment for this unit, in accordance with licensing authority requirements.

The state/territory driver licensing authority may prescribe approved routes, which must be used for the final assessment.

Assessment must occur in the following traffic and road conditions:

- on open and/or private roads with moderate inclines and declines
- typical weather conditions.

and may also include traffic and road conditions at a depot, base or warehouse.

Resources for assessment include:

- a range of relevant exercises, case studies and/or simulations
- appropriate range of relevant on-road operational or workplace situations
- applicable documentation including workplace procedures, regulations, codes of practice and operation manuals
- relevant materials, tools, equipment and personal protective equipment currently used in industry.

## Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=df441c6e-213d-43e3-874c-0b3f7036d851>

# TLILIC2016 Licence to drive a heavy rigid vehicle

## Modification History

**Release 2.** This is the second release of this unit of competency in the TLI Transport and Logistics Training Package.

Modification of assessment conditions to remove an implementation barrier.

**Release 1.** This is the first release of this unit of competency in the TLI Transport and Logistics Training Package.

## Application

This unit involves the skills and knowledge required to obtain a licence to drive a heavy rigid vehicle. It includes systematically and efficiently controlling all vehicle functions, monitoring traffic and road conditions, managing vehicle condition and performance, and effectively managing hazardous situations.

Heavy rigid vehicle includes:

- a rigid vehicle, not being an unladen prime mover, with a minimum of three axles and a minimum 15 tonnes GVM or
- a modified three axle prime mover with a certified detachable tray (with capacity to carry 75% of its specified GVM) with a GVM of 15 tonnes and holds dual registration (HC & HR) or
- a three axle articulated bus or
- a three axle bus above 15 tonnes GVM.

Assessment of this unit will be undertaken within a licensing examination conducted by, or under the authority of, the relevant state/territory driver licensing authority.

This unit applies to driving that is carried out in accordance with relevant state/territory driver licensing authority licence requirements and regulations for heavy rigid vehicles.

Driving is performed with limited or minimum supervision, and with limited accountability and responsibility for self and others in achieving the prescribed outcomes.

Driving involves the application of routine vehicle driving principles and procedures to maintain safety and to operate a heavy rigid vehicle across a variety of driving contexts.

The primary legislative requirements applicable to this unit of competency are state/territory legislation in relation to road use and driver licensing.

This unit addresses the knowledge and skills necessary for the granting of a Heavy Rigid Driver Licence.

Being awarded this unit of competency is a necessary requirement to obtain a Heavy Rigid Driver Licence but is only one of several criteria. Prospective licence applicants should check with the state/territory driver licensing authority for other criteria (such as licence tenure and medical fitness) to confirm other eligibility requirements before undertaking training and/or



assessment.

## Pre-requisite Unit

Not applicable.

## Competency Field

LIC – Licensing

## Unit Sector

Not applicable.

## Elements and Performance Criteria

### ELEMENTS

Elements describe the essential outcomes.

### PERFORMANCE CRITERIA

Performance criteria describe the performance needed to demonstrate achievement of the element.

#### **1 Drive a heavy rigid vehicle**

- 1.1 Heavy rigid vehicle is started, steered, manoeuvred, positioned and stopped in accordance with traffic regulations, manufacturer instructions and relevant vehicle handling procedures
- 1.2 Engine power is managed to ensure efficiency and performance, and to minimise engine and gear damage
- 1.3 Braking system of heavy rigid vehicle is managed and operated efficiently to ensure effective control of vehicle under all conditions
- 1.4 Driving hazards are identified and/or anticipated and avoided or controlled through defensive driving
- 1.5 Heavy rigid vehicle is driven in reverse, maintaining visibility and achieving accurate positioning
- 1.6 Heavy rigid vehicle is parked, shutdown and safely secured according to traffic regulations
- 1.7 Load is safely and effectively restrained

#### **2 Monitor traffic and**

- 2.1 Traffic and road conditions are constantly monitored and acted on to enable safe operation and to ensure no injury to

<b>3 Monitor and maintain vehicle performance</b>	<b>road conditions</b>	people or damage to property, equipment, loads and facilities
	2.2	Interaction with other road users is conducted courteously in accordance with road rules to ensure safe and efficient traffic flow
	3.1	Vehicle performance is maintained through pre-operational inspections and vehicle checks
	3.2	Appropriate signage, lights and equipment are checked for operational effectiveness and for conformity to prescribed traffic regulations

## Foundation Skills

Foundation skills essential to performance are explicit in the performance criteria of this unit of competency.

## Range of Conditions

Range is restricted to essential operating conditions and any other variables essential to the work environment.

Non-essential conditions can be found in the Companion Volume Implementation Guide.

## Unit Mapping Information

This unit replaces and is equivalent to TLILIC2016B Licence to drive a heavy rigid vehicle.

## Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=df441c6e-213d-43e3-874c-0b3f7036d851>

# Assessment Requirements for TLILIC2016 Licence to drive a heavy rigid vehicle

## Modification History

**Release 2.** This is the second release of this unit of competency in the TLI Transport and Logistics Training Package.

Modification of assessment conditions to remove an implementation barrier.

**Release 1.** This is the first release of this unit of competency in the TLI Transport and Logistics Training Package.

## Performance Evidence

Evidence required to demonstrate competence in this unit must be relevant to and satisfy all of the requirements of the elements and performance criteria on at least one occasion and include:

- anticipating and monitoring traffic hazards and taking appropriate action
- applying precautions and required action to eliminate, minimise or control identified hazards
- applying relevant procedures that reflect legislative requirements
- carrying out pre-operational vehicle checks including:
  - checking and topping up fluid levels
  - checking:
    - brakes
    - operation of vehicle lights and indicators
    - tyre pressures
  - visually checking vehicle
- communicating effectively with others
- handling vehicle including:
  - accelerating and braking
  - managing engine performance
  - operating vehicle controls, instruments and indicators
  - positioning and stopping a vehicle
  - reversing a vehicle
  - starting a vehicle
  - steering and manoeuvring a vehicle
  - using defensive driving techniques
- negotiating a range of complex traffic infrastructure (such as roundabouts, traffic lights, stalemate intersections, railway level crossings)
- reading and interpreting relevant instructions, procedures, information and signs.

## Knowledge Evidence

Evidence required to demonstrate competence in this unit must be relevant to and satisfy all of the requirements of the elements and performance criteria and include knowledge of:

- driving hazards and related defensive driving techniques
- efficient driving techniques
- engine power management and safe driving strategies
- heavy rigid vehicle controls, instruments and indicators, and their use
- heavy rigid vehicle handling procedures
- pre-operational checks carried out on vehicle and related action
- relevant state/territory driver licensing authority road rules, regulations, permit and licence requirements.

## Assessment Conditions

As a minimum, assessors must satisfy applicable regulatory requirements, which include requirements in the *Standards for Registered Training Organisations* current at the time of assessment.

As a minimum, assessment must satisfy applicable regulatory requirements, which include requirements in the *Standards for Registered Training Organisations* current at the time of assessment.

Practical driving aspects must be assessed in a vehicle typical of the class as approved by the state/territory driver licensing authority. The use of simulators for driver testing is not permitted.

The assessor must use the mandatory assessment tool provided by the state/territory driver licensing authority to conduct the assessment for this unit according to licensing authority requirements.

The state/territory driver licensing authority may prescribe approved routes, which must be used for the final assessment.

Assessment must occur in the following traffic and road conditions:

- on open and/or private roads with moderate inclines and declines
- typical weather conditions.

and may also include traffic and road conditions at a depot, base or warehouse.

Resources for assessment include:

- a range of relevant exercises, case studies and/or simulations
- appropriate range of relevant on-road operational or workplace situations
- applicable documentation including workplace procedures, regulations, codes of practice and operation manuals
- relevant materials, tools, equipment and personal protective equipment currently used in industry.

## Links

Companion Volume implementation guides are found in VETNet -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=df441c6e-213d-43e3-874c-0b3f7036d851>

# TLILIC3017 Licence to drive a heavy combination vehicle

## Modification History

**Release 2.** This is the second release of this unit of competency in the TLI Transport and Logistics Training Package.

Modification of assessment conditions to remove an implementation barrier.

**Release 1.** This is the first release of this unit of competency in the TLI Transport and Logistics Training Package.

## Application

This unit involves the skills and knowledge required to obtain a licence to drive a heavy combination vehicle. It includes systematically and efficiently controlling all vehicle functions, monitoring traffic and road conditions, managing vehicle condition and performance, coupling and uncoupling of trailer, and effectively managing hazardous situations.

A heavy combination vehicles includes:

- a prime mover with a minimum of three axles and a semi-trailer with a minimum of two axles – vehicle must have a GCM rating of at least 24 tonnes or
- a heavy rigid vehicle towing a trailer – trailer must have at least two axles and a GVM of 12 tonnes or more.

Assessment of this unit will be undertaken within a licensing examination conducted by, or under the authority of, the relevant state/territory driver licensing authority.

This unit applies to driving that is carried out in accordance with relevant state/territory driver licensing authority licence requirements and regulations for heavy combination vehicles.

Driving is performed with limited or minimum supervision, and with limited accountability and responsibility for self and others in achieving the prescribed outcomes.

Driving involves the application of routine vehicle driving principles and procedures to maintain safety and to operate a heavy combination vehicle across a variety of driving contexts.

The primary legislative requirements applicable to this unit of competency are state/territory legislation in relation to road use and driver licensing.

This unit addresses the knowledge and skills necessary for the granting of a Heavy Combination Driver Licence.

Being awarded this unit of competency is a necessary requirement to obtain a Heavy Combination Driver Licence but is only one of several criteria. Prospective licence applicants should check with the state/territory driver licensing authority for other criteria (such as licence tenure and medical fitness) to confirm other eligibility requirements before undertaking training and/or assessment.

## Pre-requisite Unit

Not applicable.

## Competency Field

LIC – Licensing

## Unit Sector

Not applicable.

## Elements and Performance Criteria

### ELEMENTS

Elements describe the essential outcomes.

#### **1 Drive a heavy combination vehicle**

### PERFORMANCE CRITERIA

Performance criteria describe the performance needed to demonstrate achievement of the element.

- 1.1 Heavy combination vehicle is started, steered, manoeuvred, positioned and stopped in accordance with traffic regulations, manufacturer instructions and relevant vehicle handling procedures
- 1.2 Engine power is managed to ensure efficiency and performance, and to minimise engine and gear damage
- 1.3 Braking system of heavy combination vehicle is managed and operated efficiently to ensure effective control of vehicle under all conditions
- 1.4 Driving hazards are identified and/or anticipated and avoided or controlled through defensive driving
- 1.5 Heavy combination vehicle is driven in reverse, maintaining visibility and achieving accurate positioning
- 1.6 Heavy combination vehicle is parked, shutdown, uncoupled and safely secured in accordance with traffic regulations
- 1.7 Load is safely and effectively restrained
- 2.1 Traffic and road conditions are constantly monitored and acted on to enable safe operation and to ensure no injury to people or damage to property, equipment, loads and facilities
- 2.2 Interaction with other road users is conducted courteously in accordance with road rules to ensure safe and efficient traffic

flow

- |   |   |     |  |     |  |     |   |     |  |
|---|---|-----|--|-----|--|-----|---|-----|--|
| <b>3 Monitor and maintain vehicle performance</b> | <table border="0"><tr><td style="vertical-align: top;">3.1</td><td>Vehicle performance is maintained through pre-operational inspections and vehicle checks</td></tr><tr><td style="vertical-align: top;">3.2</td><td>Appropriate signage, lights and equipment are checked for operational effectiveness and for conformity to prescribed traffic regulations</td></tr><tr><td style="vertical-align: top;">3.3</td><td>Prime mover and trailer are correctly aligned and coupled</td></tr><tr><td style="vertical-align: top;">3.4</td><td>Coupled vehicle is checked and tested to ensure it is correctly secured and to confirm it is fully operational</td></tr></table> | 3.1 | Vehicle performance is maintained through pre-operational inspections and vehicle checks | 3.2 | Appropriate signage, lights and equipment are checked for operational effectiveness and for conformity to prescribed traffic regulations | 3.3 | Prime mover and trailer are correctly aligned and coupled | 3.4 | Coupled vehicle is checked and tested to ensure it is correctly secured and to confirm it is fully operational |
| 3.1   | Vehicle performance is maintained through pre-operational inspections and vehicle checks  |     |  |     |  |     |   |     |  |
| 3.2   | Appropriate signage, lights and equipment are checked for operational effectiveness and for conformity to prescribed traffic regulations  |     |  |     |  |     |   |     |  |
| 3.3   | Prime mover and trailer are correctly aligned and coupled   |     |  |     |  |     |   |     |  |
| 3.4   | Coupled vehicle is checked and tested to ensure it is correctly secured and to confirm it is fully operational  |     |  |     |  |     |   |     |  |

## Foundation Skills

Foundation skills essential to performance are explicit in the performance criteria of this unit of competency.

## Range of Conditions

Range is restricted to essential operating conditions and any other variables essential to the work environment.

Non-essential conditions can be found in the Companion Volume Implementation Guide.

## Unit Mapping Information

This unit replaces and is equivalent to TLILIC3017A Licence to drive a heavy combination vehicle.

## Links

Companion Volume implementation guides are found in VETNet -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=df441c6e-213d-43e3-874c-0b3f7036d851>



# Assessment Requirements for TLILIC3017 Licence to drive a heavy combination vehicle

## Modification History

**Release 2.** This is the second release of this unit of competency in the TLI Transport and Logistics Training Package.

Modification of assessment conditions to remove an implementation barrier.

**Release 1.** This is the first release of this unit of competency in the TLI Transport and Logistics Training Package.

## Performance Evidence

Evidence required to demonstrate competence in this unit must be relevant to and satisfy all of the requirements of the elements and performance criteria on at least one occasion and include:

- anticipating and monitoring traffic hazards and taking appropriate action
- applying precautions and required action to eliminate, minimise or control identified hazards
- applying relevant procedures that reflect legislative requirements
- carrying out pre-operational vehicle checks including:
  - checking and topping up fluid levels
  - checking:
    - brakes
    - operation of vehicle lights and indicators
    - tyre pressures
  - visually checking vehicle
- communicating effectively with others
- handling vehicle including:
  - accelerating and braking
  - managing engine performance
  - operating vehicle controls, instruments and indicators
  - positioning and stopping a vehicle
  - reversing a vehicle
  - starting a vehicle
  - steering and manoeuvring a vehicle
  - using defensive driving techniques
- monitoring performance of vehicle, its trailers and its equipment, and taking appropriate action as required
- negotiating a range of complex traffic infrastructure (such as roundabouts, traffic lights, stalemate intersections, railway level crossings)

- reading and interpreting relevant instructions, procedures, information and signs.

## Knowledge Evidence

Evidence required to demonstrate competence in this unit must be relevant to and satisfy all of the requirements of the elements and performance criteria and include knowledge of:

- driving hazards and related defensive driving techniques
- efficient driving techniques
- engine power management and safe driving strategies
- heavy combination vehicle controls, instruments and indicators, and their use
- heavy combination vehicle handling procedures
- pre-operational checks carried out on vehicle and related action
- relevant state/territory driver licensing authority road rules, regulations, permit and licence requirements.

## Assessment Conditions

As a minimum, assessors must satisfy applicable regulatory requirements, which include requirements in the *Standards for Registered Training Organisations* current at the time of assessment.

As a minimum, assessment must satisfy applicable regulatory requirements, which include requirements in the *Standards for Registered Training Organisations* current at the time of assessment.

Practical driving aspects must be assessed in a vehicle typical of the class as approved by the state/territory driver licensing authority. The use of simulators for driver testing is not permitted.

The assessor must use the mandatory assessment tool provided by the state/territory driver licensing authority to conduct the assessment for this unit, in accordance with licensing authority requirements.

The state/territory driver licensing authority may prescribe approved routes, which must be used for the final assessment.

Assessment must occur in the following traffic and road conditions:

- on open and/or private roads with moderate inclines and declines
- typical weather conditions.

and may also include traffic and road conditions at a depot, base or warehouse.

Resources for assessment include:

- a range of relevant exercises, case studies and/or simulations
- appropriate range of relevant on-road operational or workplace situations
- applicable documentation including workplace procedures, regulations, codes of practice and operation manuals
- relevant materials, tools, equipment and personal protective equipment currently used in industry.

## Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=df441c6e-213d-43e3-874c-0b3f7036d851>

# UEPOPL001 Licence to operate a steam turbine

## Modification History

Release 1. This is the first release of this unit of competency in the UEP Generation Training Package.

## Application

This unit specifies the outcomes required to operate a steam turbine for licensing purposes, steam turbine means equipment that is driven by steam acting on a turbine or rotor to cause a rotary motion.

It covers the operation of any steam turbine (except a steam turbine that produces a power output of less than 500 kW) that:

- is multi-wheeled
- is capable of a speed greater than 3600 rpm or
- uses attached condensers or
- a multi-staged heat exchange extraction process.

This unit requires the operator to plan the work, carry out preoperational safety checks, start the steam turbine, monitor steam turbine operation and shutdown the steam turbine.

A person performing this work is required to hold a turbine operation high risk work (HRW) licence.

## Licensing/Regulatory information

This unit is based on the licensing requirements of Part 4.5 of the Model Work Health and Safety (WHS) Regulations, HRW and meets Commonwealth, state and territory HRW licensing requirements.

Any alteration to this unit would result in a unit that would not be acceptable to Work, Health and Safety (WHS)/Occupational Health and Safety (OHS) regulators for the purpose of licensing.

## Pre-requisite Unit

There are no prerequisite units

## Competency Field

Licensing

## Unit Sector

Electricity generation

## Elements and Performance Criteria

### ELEMENTS

Elements describe the essential outcomes.

#### 1 Plan work

### PERFORMANCE CRITERIA

Performance criteria describe the performance needed to demonstrate achievement of the element.

**1.1** Type of operations to be conducted for steam turbine are assessed and prepared

**1.2** Steam turbine operations are planned, in accordance with procedures

**1.3** Personal Protective Equipment (PPE) is selected for use, ensuring statutory requirements and procedures are followed

**1.4** Hazards and potential hazards in work area are identified and assessed for risk, and controls recommended are consistent with appropriate standards

**1.5** Appropriate communication methods are identified, in accordance with procedures

#### 2 Start-up steam turbine

**2.1** Downstream user of output power from steam turbine is advised of start up

**2.2** Controls are implemented for identified hazards and potential hazards in work area consistent with appropriate standards

**2.3** Availability of quality steam from upstream provider is confirmed

**2.4** Preoperational safety checks of steam turbine are conducted, in accordance with procedures

**2.5** Start-up checks are performed upon ancillary plant

**2.6** Maintenance requirements are identified and reported, in accordance with procedures

**2.7** Steam turbine is started and brought up to speed and placed on line safely, in accordance with procedures, including performance of start-up checks

- |  |  |
|--|--|
| <b>3 Monitor steam turbine operation</b> | <b>3.1</b> Steam turbine is monitored, in accordance with required procedures, including performing of operational checks and fault finding  |
|  | <b>3.2</b> Operating log is maintained clearly and accurately, in accordance with established procedures   |
|  | <b>3.3</b> Operating status of steam turbine is diagnosed and verified   |
|  | <b>3.4</b> Status of steam turbine is communicated to other operational personnel, including downstream users of steam turbine output power  |
|  | <b>3.5</b> Steam turbine emergencies and contingencies are dealt with, in accordance with local workplace procedures, manufacturers' specifications and environmental requirements |
| <b>4 Shut down steam turbine</b>         | <b>4.1</b> Energy isolation procedures are followed  |
|  | <b>4.2</b> Routine shutdown of steam turbine is performed, in accordance with operational and manufacturers' requirements and procedures, including performing shut down checks    |
|  | <b>4.3</b> Maintenance requirements are identified, recorded and reported, in accordance with procedures   |

## Foundation Skills

Foundation skills essential to performance are explicit in the performance criteria of this unit of competency.

## Range of Conditions

Range is restricted to essential operating conditions and any other variables essential to the work environment.

Non-essential conditions may be found in the Companion Volume Implementation Guide.

appropriate standards must include

but not be limited to:

- codes of practice
- state, territory and federal legislation
- Australian standards
- manufacturers' specifications

communicated and communication must include

- but not be limited to:
  - verbal
  - written
  - telephone
  - two-way radio
  - log records
  - computer record systems

emergencies must include

- but not be limited to:
  - fire
  - bomb threat
  - terrorism
  - personal accidents
  - chemical spills
  - major steam leaks
  - major water leaks
  - and flooding
  - natural disasters

faults must include

- but not be limited to:
  - abnormal operating conditions
  - loss of a major auxiliary
  - steam turbine water ingress
  - wet steam
  - excessively high turbine and turbine valves heating or cooling rates and/or differentials
  - loss of condenser vacuum
  - condenser tube leak
  - high dissolved oxygen
  - conductivity
  - high steam turbine bearing temperatures or vibration
  - high or low bearing oil temperatures
  - loss of steam turbine bearing oil flow or pressure
  - low or high pressure heaters malfunction
  - actuator, valve, mechanical and electrical faults or failure
  - instrument failure
  - steam turbine protection

hazards must include

- but not be limited to:
  - chemical hazards
  - thermal hazards
  - manual handling hazards
  - guarding of machinery requirements
  - illumination of work area
  - rubbish and combustibles in area
  - leakage of steam
  - leakage of fuel
  - obstructions in the work area
  - fire
  - noise
  - vibration
  - water and working at heights

operational checks must include

- but not be limited to:
  - quality of steam supply
  - cooling water system
  - condenser operation
  - position and operation of valves and fittings
  - cylinder drainage system
  - lubrication system, speed control, vibration level and steam reticulation line pressure
  - operation of control or safety devices

Personal Protective Equipment (PPE) must include

- but not be limited to:
  - prescribed under legislation, regulations, codes of practice and workplace policies and procedures
  - hard hat, safety boots, gloves and high visibility clothing
  - breathing, hearing, sight, skin and sun protection
  - fall arrest equipment such as harnesses and lanyards, horizontal lines and inertia reel

preoperational safety checks must include

- but not be limited to:
  - steam supply system
  - position and operation of steam turbine valves
  - safety devices



- overspeed shutdown
  - pressure relieve devices
  - speed governor
  - exhaust system
  - auxiliary equipment
  - lubrication system
- procedures must include
- but not be limited to:
    - manufacturers' instructions, specifications or checklists
    - industry operating procedures
    - workplace procedures including instructions, operating procedures and checklists
- recorded information must include
- but not be limited to:
    - operations and maintenance of steam turbine equipment
    - difficulties or issues
    - environmental issues
    - recommendations for future work
    - results
    - costs
    - hazards
    - incidents or injuries
    - dangerous occurrences or equipment malfunctions
    - log book and proformas
    - production reports and maintenance records
- simulated training must include
- reproduction of conditions in working situation
  - enabling tasks to be learned and practised safely and economically
- shut down checks must include
- but not be limited to:
    - checks of cooling down process
    - steam supply isolated
    - load on steam turbine
    - auxiliary equipment shutdown
    - cylinder drain system
    - isolation from any common connection
- start-up checks must include
- but not be limited to:
    - position and operation of valves and

- industrial equipment must include
- steam turbine emergencies and contingencies must include
- fittings
  - operation of lubrication system
  - operation of drainage system
  - steam quality
  - heat input
  - operation of auxiliary equipment
  - freedom of rotation of steam turbine
  - steam turbine warmup
  - operation of steam traps and steam line purge systems
  - warm up of reticulation system
  - reticulation line pressure
  - where steam acts on a steam turbine or rotor to cause a rotary motion with any or all the following features:
    - attached condensers
    - multi-wheeled
  - multi-staged heat exchange extraction process at speed greater than 3600 rpm may include:
    - axial flow
    - back pressure
    - condensing
    - impulse
    - non-condensing pass out
    - radial flow
    - reaction and velocity compounding
  - steam turbines with a power output of greater than 500kw
  - the operation may be assisted by remote indicators of plant status and other parameters monitored (e.g. central control stations), in wet, noisy, dusty or hot areas or during continuous operation
  - but not be limited to:
    - identification of type of emergency
    - isolation of steam supply
    - selection and application of appropriate firefighting equipment
    - notification of upstream steam supplier
    - operation of steam turbine only when safe to do so

testing must include

- but not be limited to:
  - loss of a major auxiliary controls response checks
  - standby plant tests
  - valves operating checks
  - emergency governor operation test
  - performance tests
  - alarm and protection tests

## Unit Mapping Information

This unit replaces and is equivalent to UEPOPL001A Licence to operate a steam turbine.

## Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=1715b9fa-e7bd-441c-bb8d-cf22c9c825a8>

# Assessment Requirements for UEPOPL001 Licence to operate a steam turbine

## Modification History

Release 1. This is the first release of this unit of competency in the UEP Generation Training Package.

## Performance Evidence

Evidence required to demonstrate competence in this unit must be relevant to and satisfy all the requirements of the elements, performance criteria and range of conditions on at least one occasion and includes:

- communicating effectively and working safely with others in the work area
- completing verification of problems and steam turbine equipment faults and demonstrating appropriate response procedures
- compliance with Commonwealth, state or territory regulations for the acquisition of a high risk work licence for steam turbine operation
- compliance with legislation, regulations, standards, codes of practice and established safe practices and procedures for starting, operating, shutting down and maintaining a steam turbine
- compliance with organisational and site policies and procedures including quality requirements and state or territory legislation applicable to workplace operations
- compliance with WHS and environmental regulations, policies and procedures
- controlling and monitoring any ancillary equipment which may be connected or interfaced to the steam turbine recording accurately and maintaining information related to operation of a steam turbine
- identifying hazards associated with the operation of the steam turbine and put in place effective hazard controls for those hazards identified
- performing efficiently and safely when starting, operating, shutting down and maintaining a steam turbine
- starting up, monitoring and shutting down a steam turbine effectively which meets the definition of this licence class
- undertaking diagnostic and testing techniques as applied to steam turbines
- using appropriate communication techniques with colleagues and others
- utilising relevant tools and equipment

## Knowledge Evidence

Evidence required to demonstrate competence in this unit must be relevant to and satisfy all the requirements of the elements, performance criteria and range of conditions and includes knowledge of:

- basic principles of heat transfer and thermodynamics
- Commonwealth, state or territory WHS legislation, regulations, standards and codes of practice relevant to the full range of techniques for operating steam turbines
- confined space awareness and the limits for entry into a confined space
- environmental protection requirements relating to the disposal of waste material and storage of environmentally hazardous materials
- established communication channels and protocols in the workplace
- organisational and workplace standards, requirements, policies and procedures for starting, operating, shutting down and maintaining a steam turbine
- procedures for the recording, reporting and maintenance of workplace records and information
- safety data sheets and material handling methods
- steam turbine capabilities and components
- steam turbine fault finding and problem solving techniques
- steam turbine operations and operating techniques
- steam turbine safety devices and testing techniques
- steam turbine speed control equipment
- system components and their interaction with other plant and equipment.
- typical routine problems encountered in the process and with equipment and adjustments required for correction
- understanding of the hierarchy of hazard identification and control

## Assessment Conditions

Assessments must be conducted by an assessor accredited for this High Risk Work (HRW) licence class in the Commonwealth, state or territory where the licence will be obtained (i.e. an assessor authorised by a Commonwealth, state or territory WHS/OHS regulator).

As a minimum, assessors must satisfy applicable regulatory requirements, which include requirements in the Standards for Registered Training Organisations current at the time of assessment.

As a minimum, assessment must satisfy applicable regulatory requirements, which include requirements in the Standards for Registered Training Organisations current at the time of assessment.

Assessment processes and techniques must be appropriate to the language, literacy and numeracy requirements of the work being performed and the needs of the candidate.

Assessment of performance must be undertaken in the workplace and/or under realistic workplace conditions which typically reflect:

- performing tasks and activities within timelines that would be expected in a workplace
- standard and authorised work practices, safety requirements and environmental constraints
- using full scale equipment

The use of simulators in the assessment of this unit of competency is acceptable.

Resources for assessment must include access to:

- a range of relevant exercises, case studies and/or other simulations
- relevant and appropriate materials, tools and equipment used in industry including:
  - Personal Protective Equipment (PPE) for performance assessment
  - appropriate safety equipment in safe condition
  - appropriate steam turbine and associated equipment in safe condition
- communication equipment, as required, applicable documentation including workplace procedures, industry standards, equipment specifications, regulations, codes of practice and operation manuals.

## Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=1715b9fa-e7bd-441c-bb8d-cf22c9c825a8>

## **FBP Food, Beverage and Pharmaceutical**

### **Modification History**

Not applicable.

### **Credit Arrangements**

### **Links**

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

## FBPSS00001 Advanced baking skill set

### Modification History

Release	Comments
Release 2	This version released with FBP Food, Beverage and Pharmaceutical Training Package version 2.0. Corrected typographical errors.
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package version 1.0.

### Description

This skill set addresses the skills required to provide bakers with advanced knowledge and skills to produce baking products.

### Pathways Information

These units of competency provide a pathway from *FBP30417 Certificate III in Bread Baking* and *FBP30517 Certificate III in Baking*. Three of the units provide credit toward *FBP40217 Certificate IV in Baking*.

### Licensing/Regulatory Information

Food safety legislation applies to workers in this industry. Requirements vary between industry sectors and state/territory jurisdictions. Users of this skill set are advised to check with their food safety authority for specific requirements.

### Skill Set Requirements

An asterisk next to the unit code indicates that there are prerequisite requirements which must be met as part of the skill set requirements. Please refer to the Prerequisite requirements table for details.

- FBPRBK3005 Produce basic bread products
- FBPRBK3018 Produce basic artisan products
- FBPRBK4001\* Produce artisan bread products
- FBPRBK4002\* Develop advanced artisan bread methods

#### Prerequisite requirements



Unit of competency	Prerequisite requirement
FBPRBK4001 Produce artisan bread products	FBPRBK3005 Produce basic bread products
FBPRBK4002 Develop advanced artisan bread methods	FBPRBK4001 Produce artisan bread products

## Target Group

This skill set is for experienced bakers working in a commercial baking environment.

## Suggested words for Statement of Attainment

These competencies from the *FBP Food, Beverage and Pharmaceutical Training Package* meet industry requirements for producing advanced bakery products in a commercial baking environment.

## FBPSS00002 Bread baking for pastry cooks skill set

### Modification History

Release	Comments
Release 2	This version released with FBP Food, Beverage and Pharmaceutical Training Package version 2.0. Corrected typographical error.
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package version 1.0.

### Description

This skill set addresses the skills required to provide pastry cooks with the knowledge and skills to bake bread products.

### Pathways Information

These units of competency provide a pathway from the *FBP30317 Certificate III in Cake and Pastry* or equivalent.

### Licensing/Regulatory Information

Food safety legislation applies to workers in this industry. Requirements vary between industry sectors and state/territory jurisdictions. Users of this skill set are advised to check with their food safety authority for specific requirements.

### Skill Set Requirements

An asterisk next to the unit code indicates that there are prerequisite requirements which must be met as part of the skill set requirements. Please refer to the Prerequisite requirements table for details.

- FBPRBK3005 Produce basic bread products
- FBPRBK3006 Produce savoury bread products
- FBPRBK3007 Produce specialty flour bread products
- FBPRBK3014 Produce sweet yeast products
- FBPRBK4001\* Produce artisan bread products

### Prerequisite requirements

Unit of competency	Prerequisite requirement
FBPRBK4001 Produce artisan bread products	FBPRBK3005 Produce basic bread products

## Target Group

This skill set targets experienced pastry cooks who require the skills and knowledge to bake bread products in a commercial baking environment.

## Suggested words for Statement of Attainment

These competencies from the *FBP Food, Beverage and Pharmaceutical Training Package* meet industry requirements for baking bread products in commercial bakeries.

## FBPSS00003 Cake and pastry baking for bread bakers skill set

### Modification History

Release	Comments
Release 2	This version released with FBP Food, Beverage and Pharmaceutical Training Package version 2.0.  Corrected typographical errors in <i>Suggest words for Statement of Attainment</i> section.
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package version 1.0.

### Description

This skill set addresses the skills required to provide bread bakers with the knowledge and skills to bake cake and pastry products.

### Pathways Information

These units of competency provide a pathway for individuals who hold the *FBP30417 Certificate III in Bread Baking* or equivalent.

### Licensing/Regulatory Information

Food safety legislation applies to workers in this industry. Requirements vary between industry sectors and state/territory jurisdictions. Users of this skill set are advised to check with their food safety authority for specific requirements.

### Skill Set Requirements

- FBPRBK3001 Produce laminated pastry products
- FBPRBK3002 Produce non laminated pastry products
- FBPRBK3008 Produce sponge cake products
- FBPRBK3009 Produce biscuit and cookie products
- FBPRBK3010 Produce cake and pudding products
- FBPRBK3018 Produce basic artisan products

## Target Group

This skill set targets experienced bread bakers who require the skills and knowledge to bake cake and pastry products in a commercial baking environment.

## Suggested words for Statement of Attainment

These competencies from the *FBP Food, Beverage and Pharmaceutical Training Package* meet industry requirements for baking cake and pastry products in commercial bakeries.

## FBPSS00004 Food Safety Auditor Skill Set

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

### Description

This skill set is designed to cover the knowledge and skills required of an entry level food safety auditor who conducts low risk safety audits (as outlined in the National Regulatory Food Safety Auditor Guideline and Policy) in food preparation or food processing sites.

### Pathways Information

These units of competency provide credit towards a number of qualifications in the *FBP Food, Beverage and Pharmaceutical Training Package*, including:

- *FBP40418 Certificate IV in Food Science and Technology*
- *FBP50118 Diploma of Food Science and Technology*.

### Licensing/Regulatory Information

This Skill Set supports relevant legislation, including food standards included in the Australian New Zealand Food Standards Code and industry codes of practice relating to validation and verification of a food safety program and the audit requirements detailed in the National Regulatory Food Safety Auditor Guideline and Policy, and should be read in conjunction with these documents.

Regulatory food safety audits in Australia are covered by state/territory legislative frameworks that support the requirements of the National Food Safety Audit Policy 2009.

### Skill Set Requirements

- FBPAUD4001 Assess compliance with food safety programs
- FBPAUD4002 Communicate and negotiate to conduct food safety audits
- FBPAUD4003 Conduct food safety audits
- FBPAUD4004 Identify, evaluate and control food safety hazards

## Target Group

This skill set is for food safety auditors who carry out low risk food safety audits.

## Suggested words for Statement of Attainment

These competencies from the *FBP Food, Beverage and Pharmaceutical Training Package*, meet the requirements for a food safety auditor who audits low risk food preparation and processing sites.

# FBPSS00005 Milk Tanker Operator Skill Set

## Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

## Description

This skill set is designed to provide milk tanker operators with the skills and knowledge around pre-competitive requirements for food safety compliance and testing.

## Pathways Information

These units of competency provide credit towards a number of qualifications in the *FBP Food, Beverage and Pharmaceutical Training Package*, including:

- FBP20117 Certificate II in Food Processing
- FBP30117 Certificate III in Food Processing.

## Licensing/Regulatory Information

No occupational licensing or certification requirements apply to this skill set at the time of publication. However, legislative and regulatory requirements for food processing exist so local requirements must be checked. All work must comply with Australian food safety standards and relevant codes of practice.

## Skill Set Requirements

- FBPOPR2008 Operate a bulk liquid transfer process
- FBPOPR2014 Participate in sensory analysis
- FBPOPR2066 Apply sampling procedures
- FBPOPR2070 Apply quality systems and procedures

## Target Group

This skill set is for milk tanker operators who undertake milk transfer from farm to processor.



## Suggested words for Statement of Attainment

These competencies from the *FBP Food, Beverage and Pharmaceutical Training Package*, meet the requirements for milk tanker operators who undertake milk transfer from farm to processor.

# FBPSS00006 Pasteuriser and Homogeniser Operator Skill Set

## Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

## Description

This skill set is designed to develop the knowledge and skills of pasteuriser and homogeniser operators so that work is carried out in accordance with company policies and procedures, regulatory/licensing requirements and legislative requirements for the operation of high temperature/short time (HTST) and ultra-high temperature (UHT) pasteurisation equipment.

## Pathways Information

These units of competency provide credit towards a number of qualifications in the *FBP Food, Beverage and Pharmaceutical Training Package*, including:

- FBP20117 Certificate II in Food Processing
- FBP30117 Certificate III in Food Processing.

## Licensing/Regulatory Information

No occupational licensing or certification requirements apply to this skill set at the time of publication. However, legislative and regulatory requirements for food processing exist so local requirements must be checked. All work must comply with Australian food safety standards and relevant codes of practice.

## Skill Set Requirements

- FBPOPR2040 Operate a heat treatment process
- FBPOPR2043 Operate an homogenising process
- FBPOPR2045 Operate pumping equipment
- FBPOPR2050 Operate a separation process
- FBPOPR2063 Clean equipment in place

## Target Group

This skill set is for pasteuriser and homogeniser operators who work in the dairy industry.

## Suggested words for Statement of Attainment

These competencies from the *FBP Food, Beverage and Pharmaceutical Training Package*, meet the requirements for pasteuriser and homogeniser operators who work in the dairy industry.

# FBPSS00007 Pasteuriser Operator Skill Set

## Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

## Description

This skill set is designed to develop the knowledge and skills of pasteuriser operators so that work is carried out in accordance with company policies and procedures, regulatory/licensing requirements and legislative requirements for the operation of high temperature/short time (HTST) and ultra-high temperature (UHT) pasteurisation equipment.

## Pathways Information

These units of competency provide credit towards a number of qualifications in the *FBP Food, Beverage and Pharmaceutical Training Package*, including:

- FBP20117 Certificate II in Food Processing
- FBP30117 Certificate III in Food Processing.

## Licensing/Regulatory Information

No occupational licensing or certification requirements apply to this skill set at the time of publication. However, legislative and regulatory requirements for food processing exist so local requirements must be checked. All work must comply with Australian food safety standards and relevant codes of practice.

## Skill Set Requirements

- FBPOPR2040 Operate a heat treatment process
- FBPOPR2045 Operate pumping equipment
- FBPOPR2050 Operate a separation process
- FBPOPR2063 Clean equipment in place

## Target Group

This skill set is for pasteuriser operators who work in the dairy industry.

## Suggested words for Statement of Attainment

These competencies from the *FBP Food, Beverage and Pharmaceutical Training Package*, meet the requirements for pasteuriser operators who work in the food processing industry.

## FBPSS00008 Evaporator Station Operator Skill Set

### Modification History

Release	Comments
Release 1	<p>This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.</p> <p>Supersedes and is equivalent to <i>FDFSS00006 Evaporator Station Operator</i>. Updated to meet Standards for Training Packages.</p>

### Description

This skill set addresses the skills required to operate an evaporation process.

### Pathways Information

These units of competency provide credit towards a number of qualifications in the *FBP Food, Beverage and Pharmaceutical Training Package*, including:

- FBP31018 Certificate III in Sugar Milling Industry Operations.

### Licensing/Regulatory Information

No occupational licensing or regulatory requirements apply to this skill set at the time of publication.

### Skill Set Requirements

- BSBWHS201 Contribute to health and safety of self and others
- FBPOPR2034 Operate an evaporation process
- FBPOPR2068 Operate a process control interface
- FBPSUG2006 Collect and prepare samples
- FBPSUG2010 Operate a juice clarification process
- FBPSUG2011 Operate a mud filtration process
- FBPSUG2012 Chemically clean equipment

### Target Group

This skill set is for evaporator station operators.

## Suggested words for Statement of Attainment

This skill set from the *FBP Food, Beverage and Pharmaceutical Training Package* meets the industry requirements for an individual working as an evaporator station operator.

## FBPSS00009 Loco Driver Skill Set

### Modification History

Release	Comments
Release 1	<p>This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.</p> <p>Supersedes and is equivalent to <i>FDFSS00012 Loco Driver</i>. Updated to meet Standards for Training Packages.</p>

### Description

This skill set addresses the skills required to prepare, start-up, operate and shut down a cane locomotive.

### Pathways Information

These units of competency provide credit towards a number of qualifications in the *FBP Food, Beverage and Pharmaceutical Training Package*, including:

- FBP31018 Certificate III in Sugar Milling Industry Operations.

### Licensing/Regulatory Information

No occupational licensing or regulatory requirements apply to this skill set at the time of publication.

### Skill Set Requirements

- BSBWHS201 Contribute to health and safety of self and others
- FBPSUG3001 Drive a cane locomotive

### Target Group

This skill set is for cane locomotive drivers.

### Suggested words for Statement of Attainment

This skill set from the *FBP Food, Beverage and Pharmaceutical Training Package* meets the industry requirements for an individual working as a cane locomotive driver.



## FBPSS00010 Loco Driver Assistant Skill Set

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

### Description

This skill set addresses the skills required to carry out shunting of rolling stock to meet requirements of a cane haulage system, under supervision.

### Pathways Information

These units of competency provide credit towards a number of qualifications in the *FBP Food, Beverage and Pharmaceutical Training Package*, including:

- FBP31018 Certificate III in Sugar Milling Industry Operations.

### Licensing/Regulatory Information

No occupational licensing or regulatory requirements apply to this skill set at the time of publication.

### Skill Set Requirements

- BSBWHS201 Contribute to health and safety of self and others
- FBPSUG1002 Undertake shunting operations

### Target Group

This skill set is for sugar cane locomotive driver assistants.

### Suggested words for Statement of Attainment

This skill set from the *FBP Food, Beverage and Pharmaceutical Training Package* meets the industry requirements for an individual working as a sugar cane locomotive driver assistant.

## FBPSS00011 Cane Railway Skill Set

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

### Description

This skill set addresses the skills required to carry out duties of leading hands on cane railways.

### Pathways Information

These units of competency provide credit towards a number of qualifications in the *FBP Food, Beverage and Pharmaceutical Training Package*, including:

- FBP31018 Certificate III in Sugar Milling Industry Operations.

### Licensing/Regulatory Information

No occupational licensing or regulatory requirements apply to this skill set at the time of publication.

### Skill Set Requirements

An asterisk next to the unit code indicates that there are prerequisite requirements which must be met as part of the skill set requirements. Please refer to the prerequisite requirements table for details.

- BSBWHS201 Contribute to health and safety of self and others
- FBPSUG2001 Lay sleepers for cane rail systems
- FBPSUG2002 Lay rails for cane rail systems
- FBPSUG2003 Lay skeleton track for cane rail system
- FBPSUG2005\* Construct turnouts
- FBPPPL3004 Lead work teams and groups

#### Prerequisite requirements

Unit of competency	Prerequisite requirement
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FBPSUG2005 Construct turnouts	FBPSUG2002 Lay rails for cane rail systems
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## Target Group

This skill set is for cane railway leading hands.

## Suggested words for Statement of Attainment

This skill set from the *FBP Food, Beverage and Pharmaceutical Training Package* meets the industry requirements for an individual working as a cane railway leading hand.

## FBPSS00012 Cane Traffic Movement Skill Set

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

### Description

This skill set addresses the skills required to control movements on the cane railway delivery and transport network to ensure safe train separation, efficient running of the traffic system and continuous, fresh supply of cane to the mill.

### Pathways Information

These units of competency provide credit towards a number of qualifications in the *FBP Food, Beverage and Pharmaceutical Training Package*, including:

- FBP31018 Certificate III in Sugar Milling Industry Operations.

### Licensing/Regulatory Information

No occupational licensing or regulatory requirements apply to this skill set at the time of publication.

### Skill Set Requirements

- BSBWHS201 Contribute to health and safety of self and others
- FBPSUG3002 Control cane traffic movements

### Target Group

This skill set is for cane traffic movement leading hands.

### Suggested words for Statement of Attainment

This skill set from the *FBP Food, Beverage and Pharmaceutical Training Package* meets the industry requirements for an individual working as cane traffic movement leading hand.

## FBPSS00013 Cane Traffic Scheduling Skill Set

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

### Description

This skill set addresses the skills required to adjust cane delivery schedules to meet daily sugar mill operational requirements.

### Pathways Information

These units of competency provide credit towards a number of qualifications in the *FBP Food, Beverage and Pharmaceutical Training Package*, including:

- FBP31018 Certificate III in Sugar Milling Industry Operations.

### Licensing/Regulatory Information

No occupational licensing or regulatory requirements apply to this skill set at the time of publication.

### Skill Set Requirements

- BSBWHS201 Contribute to health and safety of self and others
- FBPSUG3003 Adjust cane delivery schedules to meet daily milling requirements

### Target Group

This skill set is for cane traffic scheduling leading hands.

### Suggested words for Statement of Attainment

This skill set from the *FBP Food, Beverage and Pharmaceutical Training Package* meets the industry requirements for an individual working as a cane traffic scheduling leading hand.

## FBPSS00014 Cane Weigh Bridge Skill Set

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

### Description

This skill set addresses the skills required to set up and operate a weighbridge to weigh and record incoming cane deliveries in sugar milling operations.

### Pathways Information

These units of competency provide credit towards a number of qualifications in the *FBP Food, Beverage and Pharmaceutical Training Package*, including:

- FBP31018 Certificate III in Sugar Milling Industry Operations.

### Licensing/Regulatory Information

No occupational licensing or regulatory requirements apply to this skill set at the time of publication.

### Skill Set Requirements

- BSBWHS201 Contribute to health and safety of self and others
- FBPOPR2068 Operate a process control interface
- FBPSUG2007 Conduct cane weighbridge operations

### Target Group

This skill set is for cane weigh bridge operators.

### Suggested words for Statement of Attainment

This skill set from the *FBP Food, Beverage and Pharmaceutical Training Package* meets the industry requirements for an individual working as a cane weigh bridge operator.

## FBPSS00015 Crushing and Extraction Skill Set

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

### Description

This skill set addresses the skills required to prepare and operate an extraction station and monitor turbines supplying power in sugar cane operation.

### Pathways Information

These units of competency provide credit towards a number of qualifications in the *FBP Food, Beverage and Pharmaceutical Training Package*, including:

- FBP31018 Certificate III in Sugar Milling Industry Operations.

### Licensing/Regulatory Information

No occupational licensing or regulatory requirements apply to this skill set at the time of publication.

### Skill Set Requirements

An asterisk next to the unit code indicates that there are prerequisite requirements which must be met as part of the skill set requirements. Please refer to the Prerequisite requirements table for details.

- BSBWHS201 Contribute to health and safety of self and others
- FBPOPR2068 Operate a process control interface
- FBPSUG2009 Operate an extraction station
- FBPSUG3006\* Monitor a sugar mill powerhouse
- UEPOPL001 Licence to operate a steam turbine

#### Prerequisite requirements

Unit of competency	Prerequisite requirement
FBPSUG3006* Monitor a sugar mill powerhouse	UEPOPL001A Licence to operate a steam turbine

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## Target Group

This skill set is for crushing and extraction station operators.

## Suggested words for Statement of Attainment

This skill set from the *FBP Food, Beverage and Pharmaceutical Training Package* meets the industry requirements for an individual working as a crushing and extraction station operator.



## FBPSS00016 Crystalliser Skill Set

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

### Description

This skill set addresses the skills required to operate a crystalliser station process.

### Pathways Information

These units of competency provide credit towards a number of qualifications in the *FBP Food, Beverage and Pharmaceutical Training Package*, including:

- FBP31018 Certificate III in Sugar Milling Industry Operations.

### Licensing/Regulatory Information

No occupational licensing or regulatory requirements apply to this skill set at the time of publication.

### Skill Set Requirements

- BSBWHS201 Contribute to health and safety of self and others
- FBPOPR2068 Operate a process control interface
- FBPSUG2016 Operate a crystalliser station process

### Target Group

This skill set is for crystalliser station operators.

### Suggested words for Statement of Attainment

This skill set from the *FBP Food, Beverage and Pharmaceutical Training Package* meets the industry requirements for an individual working as a crystalliser station operator.

## FBPSS00017 Sugar Lab Skill Set

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

### Description

This skill set addresses the skills required to analyse samples for cane payment and routine factory control.

### Pathways Information

These units of competency provide credit towards a *FBP31018 Certificate III in Sugar Milling Industry Operations*.

### Licensing/Regulatory Information

No occupational licensing or regulatory requirements apply to this skill set at the time of publication.

### Skill Set Requirements

- BSBWHS201 Contribute to health and safety of self and others
- FBPSUG2006 Collect and prepare samples
- FBPSUG2024 Perform standard tests on cane samples
- FBPSUG3007 Perform factory control tests
- MSL933008 Perform calibration checks on equipment and assist with its maintenance

### Target Group

This skill set is for sugar laboratory assistants.

### Suggested words for Statement of Attainment

This skill set from the *FBP Food, Beverage and Pharmaceutical Training Package* meets the industry requirements for an individual working as a sugar laboratory assistant.

# FBPSS00018 Sugar Mill Powerhouse Skill Set

## Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

## Description

This skill set addresses the skills required to operate and monitor both continuous and short-term sugar mill powerhouse operation.

## Pathways Information

These units of competency provide credit towards a number of qualifications in the *FBP Food, Beverage and Pharmaceutical Training Package*, including:

- FBP31018 Certificate III in Sugar Milling Industry Operations.

## Licensing/Regulatory Information

No occupational licensing or regulatory requirements apply to this skill set at the time of publication.

## Skill Set Requirements

An asterisk next to the unit code indicates that there are prerequisite requirements which must be met as part of the skill set requirements. Please refer to the Prerequisite requirements table for details.

- BSBWHS201 Contribute to health and safety of self and others
- FBPOPR2068 Operate a process control interface
- FBPSUG3006\* Monitor a sugar mill powerhouse

### Prerequisite requirements

Unit of competency	Prerequisite requirement
FBPSUG3006* Monitor a sugar mill powerhouse	UEPOPL001A Licence to operate a steam turbine

## Target Group

This skill set is for sugar mill powerhouse operators.

## Suggested words for Statement of Attainment

This skill set from the *FBP Food, Beverage and Pharmaceutical Training Package* meets the industry requirements for an individual working as a sugar mill powerhouse operator.

## FBPSS00019 Pan Stage Skill Set

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

### Description

This skill set addresses the skills required to operate the panning process from the molasses tanks to the high grade fugal distributor and low grade pan receiver.

### Pathways Information

These units of competency provide credit towards a number of qualifications in the *FBP Food, Beverage and Pharmaceutical Training Package*, including:

- FBP31018 Certificate III in Sugar Milling Industry Operations.

### Licensing/Regulatory Information

No occupational licensing or regulatory requirements apply to this skill set at the time of publication.

### Skill Set Requirements

- FBPSUG2006 Collect and prepare samples
- FBPSUG2012 Chemically clean equipment
- FBPSUG2013 Operate a pan station
- FBPSUG2016 Operate a crystalliser station process

### Target Group

This skill set is for pan stage station operator.

### Suggested words for Statement of Attainment

This skill set from the *FBP Food, Beverage and Pharmaceutical Training Package* meets the industry requirements for an individual working as a pan stage station operator.

## FBPSS00020 Low Grade Fugal Operator Skill Set

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

### Description

This skill set addresses the skills required to operate the low grade fugal process from the re-heater to the magma pump and molasses cooler.

### Pathways Information

These units of competency provide credit towards a number of qualifications in the *FBP Food, Beverage and Pharmaceutical Training Package*, including:

- FBP31018 Certificate III in Sugar Milling Industry Operations.

### Licensing/Regulatory Information

No occupational licensing or regulatory requirements apply to this skill set at the time of publication.

### Skill Set Requirements

- BSBWHS201 Contribute to health and safety of self and others
- FBPOPR2068 Operate a process control interface
- FBPSUG2006 Collect and prepare samples
- FBPSUG2014 Operate a low grade fugal station

### Target Group

This skill set is for low grade fugal operators.

### Suggested words for Statement of Attainment

This skill set from the *FBP Food, Beverage and Pharmaceutical Training Package* meets the industry requirements for an individual working as a low grade fugal operator.

## FBPSS00021 High Grade Fugal Operator Skill Set

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

### Description

This skill set addresses the skills required to operate the high grade fugal process from the high grade fugal distributor to the sugar bin and the molasses storage tanks.

### Pathways Information

These units of competency provide credit towards a number of qualifications in the *FBP Food, Beverage and Pharmaceutical Training Package*, including:

- FBP31018 Certificate III in Sugar Milling Industry Operations.

### Licensing/Regulatory Information

No occupational licensing or regulatory requirements apply to this skill set at the time of publication.

### Skill Set Requirements

- BSBWHS201 Contribute to health and safety of self and others
- FBPOPR2068 Operate a process control interface
- FBPSUG2006 Collect and prepare samples
- FBPSUG2015 Operate a high grade fugal station

### Target Group

This skill set is for high grade fugal operators.

### Suggested words for Statement of Attainment

This skill set from the *FBP Food, Beverage and Pharmaceutical Training Package* meets the industry requirements for an individual working as a high grade fugal operator.

# FBPSS00022 Standard Boiler Operator Skill Set

## Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

## Description

This skill set addresses the skills required to operate standard boilers.

## Pathways Information

These units of competency provide credit towards a number of qualifications in the *FBP Food, Beverage and Pharmaceutical Training Package*, including:

- FBP31018 Certificate III in Sugar Milling Industry Operations.

## Licensing/Regulatory Information

Licensing requirements apply to boiler operation but vary between states and territories. Users are advised to check with the relevant regulatory authority.

## Skill Set Requirements

- BSBWHS201 Contribute to health and safety of self and others
- FBPSUG2019 Operate a bagasse fuel supply system
- FBPSUG2021 Operate an ash separation system
- FBPOPR2068 Operate a process control interface
- MSMBLIC001 Licence to operate a standard boiler
- UEPOPL001 Licence to operate a steam turbine

## Target Group

This skill set is for individuals operating boilers who require occupational licensing by a state or territory work health and safety or occupational health and safety regulator.



## Suggested words for Statement of Attainment

These competencies from the *FBP Food, Beverage and Pharmaceutical Training Package* meet the industry requirements for an individual working as a standard boiler operator.

## FBPSS00023 Advanced Boiler Operator Skill Set

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

### Description

This skill set addresses the skills required to operate advanced boilers.

### Pathways Information

These units of competency provide credit towards a number of qualifications in the *FBP Food, Beverage and Pharmaceutical Training Package*, including:

- FBP31018 Certificate III in Sugar Milling Industry Operations.

### Licensing/Regulatory Information

Licensing requirements apply to this occupation but vary between states and territories. Users are advised to check with the relevant regulatory authority.

### Skill Set Requirements

- BSBWHS201 Contribute to health and safety of self and others
- FBPSUG2019 Operate a bagasse fuel supply system
- FBPSUG2021 Operate an ash separation system
- FBPOPR2068 Operate a process control interface
- MSMBLIC002 Licence to operate an advanced boiler
- UEPOPL001 Licence to operate a steam turbine

### Target Group

This skill set is for individuals operating boilers who require occupational licensing by a state or territory work health and safety or occupational health and safety regulator.

## **Suggested words for Statement of Attainment**

These competencies from the *FBP Food, Beverage and Pharmaceutical Training Package* meet the industry requirements for an individual working as an advanced boiler operator.

## FBPSS00024 Cellar Door Sales Skill Set

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.  Supersedes <i>FDFSS00001 Cellar Door Sales Induction</i> . Updated unit codes and titles.

### Description

This skill set addresses the entry level skills required by individuals working in cellar door sales within the wine industry.

### Pathways Information

These units of competency provide credit towards a number of qualifications in the *FBP Food, Beverage and Pharmaceutical Training Package*, including:

- FBP20518 Certificate II in Wine Industry Operations
- FBP30918 Certificate III in Wine Industry Operations.

### Licensing/Regulatory Information

No occupational licensing or regulatory requirements apply to this skill set at the time of publication.

### Skill Set Requirements

- FBPCDS2001 Conduct a standard product tasting
- FBPCDS2003 Sell cellar door products and services
- FBPWIN2003 Conduct sensory evaluation of wine
- SITHFAB002 Provide responsible service of alcohol
- SITXCCS003 Interact with customers

### Target Group

This skill set is for individuals that are new to cellar door sales and need to obtain skills and knowledge to perform effectively in a sales role.

## **Suggested words for Statement of Attainment**

These competencies from the *FBP Food, Beverage and Pharmaceutical Training Package* meet the industry requirements for new workers in cellar door sales within the wine industry.

# FBPSS00025 Cellar Operations Induction Skill Set

## Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.  Supersedes <i>FDFSS00002 Cellar Hand Induction</i> . Updated unit codes and titles.

## Description

This skill set addresses the entry level skills required by individuals working in cellar operations (wine making) within the wine industry.

## Pathways Information

These units of competency provide credit towards a number of qualifications in the *FBP Food, Beverage and Pharmaceutical Training Package*, including:

- FBP20518 Certificate II in Wine Industry Operations
- FBP30918 Certificate III in Wine Industry Operations.

## Licensing/Regulatory Information

No occupational licensing or regulatory requirements apply to this skill set at the time of publication.

## Skill Set Requirements

- FBPCEL2008 Carry out inert gas handling operations
- FBPCEL2009 Carry out transfer operations
- FBPOPR2064 Clean and sanitise equipment
- FBPWIN2001 Perform effectively in a wine industry workplace

## Target Group

This skill set is for individuals that are new to cellar hand operations and need to obtain skills and knowledge to perform effectively in cellar operations.

## **Suggested words for Statement of Attainment**

These competencies from the *FBP Food, Beverage and Pharmaceutical Training Package* meet the industry requirements for new workers in cellar hand operations within the wine industry.

## FBPSS00026 Spirit Operations Skill Set

### Modification History

Release	Comments
Release 1	<p>This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.</p> <p>Supersedes <i>FDFSS00005 Distillation Operations</i>. Updated unit codes and titles</p>

### Description

This skill set addresses the skills required by individuals working in cellar operations (wine making) involved with distilling and handling spirits within the wine industry operations.

### Pathways Information

These units of competency provide credit towards a number of qualifications in the *FBP Food, Beverage and Pharmaceutical Training Package*, including:

- FBP20518 Certificate II in Wine Industry Operations
- FBP30918 Certificate III in Wine Industry Operations.

### Licensing/Regulatory Information

Legislative requirements relating to distilling alcohol apply to this skill set. Users are advised to check current requirements with the Australian Tax Office (ATO), and state/territory liquor licencing and health agencies.

### Skill Set Requirements

- FBPCEL2009 Carry out transfer operations
- FBPCEL3001 Handle and store spirits
- FBPCEL3015 Perform first distillation (pot still brandy) operations
- FBPCEL3016 Perform second distillation (pot still brandy) operations
- FBPCEL3017 Perform single column lees stripping (continuous still brandy) operations
- FBPCEL3018 Perform dual column distillation (continuous still brandy) operations



## Target Group

This skill set is for individuals who distill and handle spirits as part of cellar operations within wine industry operations.

## Suggested words for Statement of Attainment

These competencies from the *FBP Food, Beverage and Pharmaceutical Training Package* meet the industry requirements for workers who distill and handle spirits for cellar operations within the wine industry.

## FBPSS00027 Seasonal Vineyard Hand Skill Set

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.  Supersedes <i>FDFSS0010 Hand Pruning Induction</i> . Updated unit codes and titles.

### Description

This skill set addresses the entry level skills required by individuals working as seasonal vineyard hand (viticulture) within the wine industry.

### Pathways Information

These units of competency provide credit towards a number of qualifications in the *FBP Food, Beverage and Pharmaceutical Training Package*, including:

- FBP20518 Certificate II in Wine Industry Operations
- FBP30918 Certificate III in Wine Industry Operations.

### Licensing/Regulatory Information

No occupational licensing or regulatory requirements apply to this skill set at the time of publication.

### Skill Set Requirements

An asterisk next to the unit code indicates that there are prerequisite requirements which must be met as part of the skill set requirements. Please refer to the prerequisite requirements table for details.

- AHCIRG215 Assist with low volume irrigation operations
- AHCIRG217 Assist with pressurised irrigation operations
- AHCMOM202 Operate tractors
- AHCPHT201 Plant horticultural crops
- BSBWHS301 Maintain workplace safety
- FBPVIT2003 Hand prune vines
- FBPVIT2004 Pick grapes by hand

- FBPVIT2008 Train vines
- FBPVIT2009 Plant vines by hand
- FBPVIT2015 Carry out basic canopy maintenance
- FBPVIT2018\* Support mechanical harvesting operations
- FBPWIN2001 Perform effectively in a wine industry workplace

### Prerequisite requirements

Unit of competency	Prerequisite requirement
FBPVIT2018 Support mechanical harvesting operations	AHCMOM202 Operate tractors

### Target Group

This skill set is for individuals who are new to vineyard operations and need the skills to perform a variety of seasonal vineyard operations within the wine industry.

### Suggested words for Statement of Attainment

These competencies from the *FBP Food, Beverage and Pharmaceutical Training Package* meet the industry requirements for new operatives as seasonal vineyard hands within the wine operations industry.

## FBPSS00028 Wine Hospitality Skill Set

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.  Supersedes <i>FDFSS00024 Wine Evaluation</i> . Updated unit codes and titles.

### Description

This skill set addresses the skills required by individuals working in wine evaluation and tasting events within wine industry operations.

### Pathways Information

These units of competency provide credit towards a number of qualifications in the *FBP Food, Beverage and Pharmaceutical Training Package*, including:

- FBP20518 Certificate II in Wine Industry Operations
- FBP30918 Certificate III in Wine Industry Operations.

### Licensing/Regulatory Information

No occupational licensing or regulatory requirements apply to this skill set at the time of publication.

### Skill Set Requirements

An asterisk next to the unit code indicates that there are prerequisite requirements which must be met as part of the skill set requirements. Please refer to the prerequisite requirements table for details.

- FBPCDS2001 Conduct a standard product tasting
- FBPCDS3002 Plan and deliver a wine tasting event
- FBPWIN2003 Conduct sensory evaluation of wine
- FBPWIN3001\* Evaluate wines (advanced)
- SITHFAB002 Provide responsible service of alcohol

### Prerequisite requirements

Unit of competency	Prerequisite requirement
FBPWIN3001 Evaluate wines (advanced)	FBPWIN2003 Conduct sensory evaluation of wine

## Target Group

This skill set is for individuals that need to obtain the skills and knowledge to performing wine evaluation and tasting roles within cellar door operations.

## Suggested words for Statement of Attainment

These competencies from the *FBP Food, Beverage and Pharmaceutical Training Package* meet the industry requirements for workers in wine evaluation and tasting within the wine industry.

# FBPSS00029 Bottling and Packaging Operator Skill Set

## Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

## Description

This skill set is designed to cover the knowledge and skills required of a bottling and packaging operator, working in wine or food processing industries.

## Pathways Information

These units of competency provide credit towards a number of qualifications in the *FBP Food, Beverage and Pharmaceutical Training Package*, including:

- FBP20518 Certificate II in Wine Industry Operations
- FBP30918 Certificate III in Wine Industry Operations.

## Licensing/Regulatory Information

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

## Skill Set Requirements

- BSBWHS301 Maintain workplace safety
- FBPBPG2001 Operate the bottle supply process
- FBPBPG2003 Operate the carton packing process
- FBPBPG3001 Operate the bottle filling process
- FBPBPG3002 Operate the labelling process
- FBPBPG3004 Operate the bottle sealing process

## Target Group

This skill set is for individuals who carry out bottling and packaging operations.

## Suggested words for Statement of Attainment

These competencies from the *FBP Food, Beverage and Pharmaceutical Training Package* meet the requirements for a bottling and packaging operator who may work across a range of industry areas.

# FBPSS00030 Vineyard Operations Hand Skill Set

## Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

## Description

This skill set addresses the entry level skills required by individuals working in vineyard operations (viticulture) within wine industry operations.

## Pathways Information

These units of competency provide credit towards a number of qualifications in the *FBP Food, Beverage and Pharmaceutical Training Package*, including:

- FBP20518 Certificate II in Wine Industry Operations
- FBP30918 Certificate III in Wine Industry Operations.

## Licensing/Regulatory Information

No occupational licensing or regulatory requirements apply to this skill set at the time of publication.

## Skill Set Requirements

### Skill Set Requirements

An asterisk next to the unit code indicates that there are prerequisite requirements which must be met as part of the skill set requirements. Please refer to the prerequisite requirements table for details.

- AHCCHM101 Follow basic chemical safety rules
- AHCCHM201 Apply chemicals under supervision
- AHCMOM202 Operate tractors
- BSBWHS301 Maintain workplace safety
- FBPVIT2003 Hand prune vines
- FBPVIT2008 Train vines
- FBPVIT2011 Operate vineyard equipment
- FBPVIT2013 Recognise disorders and identify pests and diseases



- FBPVIT2014 Perform pest control activities
- FBPVIT2015 Carry out basic canopy maintenance
- FBPVIT2018\* Support mechanical harvesting operations
- FBPPWIN2001 Perform effectively in a wine industry workplace

### Prerequisite requirements

Unit of competency	Prerequisite requirement
FBPVIT2018 Support mechanical harvesting operations	AHCMOM202 Operate tractors

### Target Group

This skill set is for individuals who are new to vineyard hand operations and need to obtain skills and knowledge to perform effectively in vineyard operations.

### Suggested words for Statement of Attainment

These competencies from the *FBP Food, Beverage and Pharmaceutical Training Package* meet the industry requirements for new workers in vineyard operations within the wine operations industry.

## FBPSS00031 Vineyard Nursery Hand Skill Set

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

### Description

This skill set addresses the entry level skills required by individuals working in vineyard nurseries (viticulture) within wine industry operations.

### Pathways Information

These units of competency provide credit towards a number of qualifications in the *FBP Food, Beverage and Pharmaceutical Training Package*, including:

- FBP20518 Certificate II in Wine Industry Operations
- FBP30918 Certificate III in Wine Industry Operations.

### Licensing/Regulatory Information

No occupational licensing or regulatory requirements apply to this skill set at the time of publication.

### Skill Set Requirements

- BSBWHS301 Maintain workplace safety
- FBPVIT2001 Bench graft vines
- FBPVIT2002 Carry out potting operations
- FBPVIT2005 Maintain callusing environment
- FBPVIT2006 Obtain and process rootlings
- FBPVIT2007 Tend containerised nursery plants
- FBPVIT2009 Plant vines by hand
- FBPVIT2012 Identify and treat nursery plant disorders
- FBPVIT2016 Carry out hot water treatment
- FBPVIT3006 Field graft vines
- FBPWIN2001 Perform effectively in a wine industry workplace

## Target Group

This skill set is for individuals who perform a variety of vineyard nursery operations and need to obtain skills and knowledge to perform effectively within vineyard operations.

## Suggested words for Statement of Attainment

These competencies from the *FBP Food, Beverage and Pharmaceutical Training Package* meet the industry requirements for new workers in vineyard nurseries within the wine industry.

# FBPSS00032 Bottle Supply Operator Skill Set

## Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

## Description

This skill set is designed to cover the knowledge and skills required of a bottle supply operator, working in wine or food processing industries.

## Pathways Information

These units of competency provide credit towards a number of qualifications in the *FBP Food, Beverage and Pharmaceutical Training Package*, including:

- FBP20518 Certificate II in Wine Industry Operations.

## Licensing/Regulatory Information

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

## Skill Set Requirements

- BSBWHS301 Maintain workplace safety
- FBPBPG2001 Operate the bottle supply process
- FBPOPR2068 Operate a process control interface
- TLID2010 Operate a forklift

## Target Group

This skill set is for individuals who carry out bottle supply operations.

## Suggested words for Statement of Attainment

These competencies from the *FBP Food, Beverage and Pharmaceutical Training Package* meet the requirements for a bottle supply operator who may work across a range of industry areas.



# FBPSS00033 Bottling and Packaging Filler Operator Skill Set

## Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

## Description

This skill set is designed to cover the knowledge and skills required of a bottling and packaging filler operator, working in wine or food processing industries.

## Pathways Information

These units of competency provide credit towards a number of qualifications in the *FBP Food, Beverage and Pharmaceutical Training Package*, including:

- FBP20518 Certificate II in Wine Industry Operations
- FBP30918 Certificate III in Wine Industry Operations.

## Licensing/Regulatory Information

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

## Skill Set Requirements

- BSBWHS301 Maintain workplace safety
- FBPBPG3001 Operate the bottle filling process
- FBPBPG3004 Operate the bottle sealing process
- FBPBPG3007 Perform packaging equipment changeover
- FBPFSSY2001 Implement the food safety program and procedures
- FBPOPR2068 Operate a process control interface

## Target Group

This skill set is for individuals who carry out bottling and packaging filler operations.

## Suggested words for Statement of Attainment

These competencies from the *FBP Food, Beverage and Pharmaceutical Training Package* meet the requirements for a bottling and packaging filler operator who may work across a range of industry areas.

# FBPSS00034 Bottling and Packaging Labelling Operator Skill Set

## Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

## Description

This skill set is designed to cover the knowledge and skills required of a bottling and packaging labelling operator, working in wine or food processing industries.

## Pathways Information

These units of competency provide credit towards a number of qualifications in the *FBP Food, Beverage and Pharmaceutical Training Package*, including:

- FBP20518 Certificate II in Wine Industry Operations
- FBP30918 Certificate III in Wine Industry Operations.

## Licensing/Regulatory Information

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

## Skill Set Requirements

- BSBWHS301 Maintain workplace safety
- FBPBPG3002 Operate the labelling process
- FBPBPG3007 Perform packaging equipment changeover
- FBPOPR2068 Operate a process control interface

## Target Group

This skill set is for individuals who carry out bottling and packaging labelling operations.



## Suggested words for Statement of Attainment

These competencies from the *FBP Food, Beverage and Pharmaceutical Training Package* meet the requirements for a bottling and packaging labelling operator who may work across a range of industry areas.

# FBPSS00035 Carton Packaging and Palletising Operator Skill Set

## Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

## Description

This skill set is designed to cover the knowledge and skills required of a carton packaging and palletising operator, working in wine or food processing industries.

## Pathways Information

These units of competency provide credit towards a number of qualifications in the *FBP Food, Beverage and Pharmaceutical Training Package*, including:

- FBP20518 Certificate II in Wine Industry Operations
- FBP30918 Certificate III in Wine Industry Operations.

## Licensing/Regulatory Information

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

## Skill Set Requirements

- BSBWHS301 Maintain workplace safety
- FBPBPG2002 Operate the carton erection process
- FBPBPG2003 Operate the carton packing process
- FBPBPG2004 Operate the palletising process
- FBPBPG2005 Operate the electronic coding process
- FBPBPG3007 Perform packaging equipment changeover
- FBPOPR2068 Operate a process control interface

## Target Group

This skill set is for individuals who carry out carton packaging and palletising operations.

## Suggested words for Statement of Attainment

These competencies from the *FBP Food, Beverage and Pharmaceutical Training Package* meet the requirements for a carton packaging and palletising operator who may work across a range of industry areas.

## FBPSS00036 Continuous Still Distillation Skill Set

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

### Description

This skill set addresses the skills required by individuals working in cellar operations (wine making) involved with continuous still distillation and handling spirits within wine industry operations.

### Pathways Information

These units of competency provide credit towards a number of qualifications in the *FBP Food, Beverage and Pharmaceutical Training Package*, including:

- FBP20518 Certificate II in Wine Industry Operations
- FBP30918 Certificate III in Wine Industry Operations.

### Licensing/Regulatory Information

Legislative requirements relating to distilling alcohol apply to this skill set. Users are advised to check current requirements with the Australian Tax Office (ATO), and state/territory liquor licencing and health agencies.

### Skill Set Requirements

- BSBWHS301 Maintain workplace safety
- FBPCEL2009 Carry out transfer operations
- FBPCEL3001 Handle and store spirits
- FBPCEL3017 Perform single column lees stripping (continuous still brandy) operations
- FBPCEL3018 Perform dual column distillation (continuous still brandy) operations

### Target Group

This skill set is for individuals who distill and handle spirits using continuous still distillation as part of cellar operations within wine industry operations.

## Suggested words for Statement of Attainment

These competencies from the *FBP Food, Beverage and Pharmaceutical Training Package* meet the industry requirements for workers who distill and handle spirits using continuous still distillation for cellar operations within the wine industry.

## FBPSS00037 Pot Still Distillation Skill Set

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

### Description

This skill set addresses the skills required by individuals working in cellar operations (wine making) involved with pot still distillation and handling spirits within wine industry operations.

### Pathways Information

These units of competency provide credit towards a number of qualifications in the *FBP Food, Beverage and Pharmaceutical Training Package*, including:

- FBP20518 Certificate II in Wine Industry Operations
- FBP30918 Certificate III in Wine Industry Operations.

### Licensing/Regulatory Information

Legislative requirements relating to distilling alcohol apply to this skill set. Users are advised to check current requirements with the Australian Tax Office (ATO), and state/territory liquor licensing and health agencies.

### Skill Set Requirements

- BSBWHS301 Maintain workplace safety
- FBPCEL2009 Carry out transfer operations
- FBPCEL3001 Handle and store spirits
- FBPCEL3015 Perform first distillation (pot still brandy) operations
- FBPCEL3016 Perform second distillation (pot still brandy) operations

### Target Group

This skill set is for individuals who distill and handle spirits using pot still distillation as part of cellar operations within wine industry operations.

## Suggested words for Statement of Attainment

These competencies from the *FBP Food, Beverage and Pharmaceutical Training Package* meet the industry requirements for workers who distill and handle spirits using pot still distillation for cellar operations within the wine industry.

## FBPSS00038 Spirit Handling Skill Set

### Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

### Description

This skill set addresses the skills required by individuals working in cellar operations (wine making) involved with handling spirits within wine industry operations.

### Pathways Information

These units of competency provide credit towards a number of qualifications in the *FBP Food, Beverage and Pharmaceutical Training Package*, including:

- FBP20518 Certificate II in Wine Industry Operations
- FBP30918 Certificate III in Wine Industry Operations.

### Licensing/Regulatory Information

Legislative requirements relating to distilling alcohol apply to this skill set. Users are advised to check current requirements with the Australian Tax Office (ATO), and state/territory liquor licensing and health agencies.

### Skill Set Requirements

- BSBWHS301 Maintain workplace safety
- FBPCEL2009 Carry out transfer operations
- FBPCEL3001 Handle and store spirits

### Target Group

This skill set is for individuals who handle spirits as part of cellar operations within wine industry operations.



## Suggested words for Statement of Attainment

These competencies from the *FBP Food, Beverage and Pharmaceutical Training Package* meet the industry requirements for operatives who handle spirits for cellar operations within the wine operations industry.