



**Australian Government**

# **FDF41012 Certificate IV in Flour Milling**

**Release: 1**

## **FDF41012 Certificate IV in Flour Milling**

### **Modification History**

Not applicable.

### **Description**

The FDF41012 Certificate IV in Flour Milling targets people working in a technical leadership role in the flour milling industry. The Qualification includes technical, leadership and business skills and knowledge required to mill a wide range of flours for human consumption and ensure that operations are implemented and maintained to optimal performance. It also covers skills in monitoring the implementation of systems and procedures, and management functions of the organisation.

This Qualification applies to mill managers and senior supervisors above the shift miller level in the flour milling industry who supervise across departments and either set or participate in setting production and key performance indicators for the flour mill. It applies to flour milling operations for all types of grain including wheat, oats, barley, corn, rice, sorghum, millet, rye, and non-grain flours such as peas and arrowroot.

Units selected from other Training Packages must be relevant to the work outcome, local industry requirements and the Qualification level.

Note: AgriFood Skills Australia expects that the design of any training delivery and assessment program to support the achievement of this Qualification is based on:

- the context required by the industry and/or enterprise
- a holistic and integrated training delivery and assessment plan that identifies learning activities and evidence required
- flexible delivery options including on-the-job and work-based training that support the development of competency.

## **Pathways Information**

### **Pathways into the Qualification**

Common pathways into this Qualification will include the FDF30110 Certificate III in Food Processing or FDF20110 Certificate II in Food Processing. Entry may also be from industry recognised overseas Qualifications e.g. correspondence study conducted by the National Association of British and Irish Millers (NABIM). Individuals with substantial industry experience in flour milling may also enter this Qualification. This Qualification is not suitable for school leavers.

### **Pathways from the Qualification**

After achieving this Qualification, candidates may undertake

- FDF50110 Diploma of Food Processing
- FDF50311 Diploma of Food Science and Technology

or any other suitable Diploma Qualification.

This Qualification is suitable for Australian Apprenticeships.

## **Licensing/Regulatory Information**

There are no specific licences that relate to this Qualification.

## **Entry Requirements**

Entry into this Qualification requires significant prior work experience at least at the operator level in flour milling in grain receipt, grain breaking and grain reduction processes. Preferred work experience is as a shift miller in a flour mill.

## Employability Skills Summary

Employability Skill	Industry/enterprise requirements for this Qualification include:
Communication	<ul style="list-style-type: none"> <li>• Complete workplace documentation and records.</li> <li>• Use a range of communication technologies to support work operations.</li> <li>• Develop work instructions, specifications and procedures.</li> <li>• Demonstrate effective and appropriate communication and interpersonal skills when dealing with people.</li> <li>• Undertake numerical calculations to determine ingredient quantities.</li> <li>• Communicate with all team members in a professional manner.</li> <li>• Demonstrate effective and appropriate documentation, communication and interpersonal skills when dealing with internal and external clients.</li> <li>• Use most appropriate communication method given priority, cost and audience needs.</li> <li>• Access, interpret and apply technical information.</li> <li>• Analyse data and information to determine implications for work operations.</li> </ul>
Teamwork	<ul style="list-style-type: none"> <li>• Work cooperatively with people of different ages, gender, race or religion.</li> <li>• Liaise with, and provide support to, other team members.</li> <li>• Demonstrate leadership skills.</li> <li>• Identify and manage performance required to meet internal and external customer needs in own work and team work.</li> <li>• Manage organisational processes and provide problem solving support to others.</li> </ul>
Problem-solving	<ul style="list-style-type: none"> <li>• Investigate problems and determine root cause.</li> <li>• Identify, rectify or report potential and actual problems associated with work operations.</li> <li>• Identify factors which may affect the product or service to be provided.</li> <li>• Assess product quality and determine potential improvements.</li> <li>• Use ingredient and process knowledge to solve problems.</li> <li>• Identify safety hazards and suggest control measures.</li> <li>• Identify environmental hazards and implement corrective measures.</li> <li>• Monitor food safety practices.</li> <li>• Implement food safety procedures in the workplace.</li> </ul>

Initiative and enterprise	<ul style="list-style-type: none"> <li>• Gather and analyse feedback on products, processes and procedures.</li> <li>• Assess quality and other indicators of products.</li> <li>• Support achievement of efficient production processes.</li> <li>• Determine and act on situations requiring further information or problem solving.</li> <li>• Assist in the implementation of continuous improvement processes.</li> <li>• Identify opportunities for product development.</li> <li>• Test product ideas on the market.</li> <li>• Provide leadership in the workplace.</li> </ul>
Planning and organising	<ul style="list-style-type: none"> <li>• Identify hazards and implement appropriate hazard control measures.</li> <li>• Demonstrate time management skills.</li> <li>• Determine production scheduling requirements.</li> <li>• Determine suitable strategies to control production times and processes.</li> <li>• Source and prepare materials and resources and ensure availability to support work operations.</li> <li>• Schedule and sequence work to maximise safety and productivity.</li> <li>• Optimise work processes.</li> </ul>
Self-management	<ul style="list-style-type: none"> <li>• Interpret and apply relevant Acts and regulations.</li> <li>• Keep work area clean and tidy at all times.</li> <li>• Monitor own work and work of team and identify and act on any quality issues.</li> <li>• Manage own time to meet deadlines and production schedules.</li> <li>• Implement and monitor workplace procedures and instructions.</li> <li>• Lead by example in work practices.</li> <li>• Monitor own work to ensure it meets workplace environmental requirements.</li> </ul>
Learning	<ul style="list-style-type: none"> <li>• Implement learning activities as appropriate to ensure achievement of specified work requirements.</li> <li>• Be supportive and assertive and use interpersonal skills to encourage workplace learning.</li> <li>• Identify own training needs and seek skill development, if required.</li> <li>• Gather feedback to own work to assess effectiveness in meeting objectives and integrate information into own practice.</li> <li>• Assess work data and information to identify areas for improved performance.</li> </ul>

Technology	<ul style="list-style-type: none"><li>• Use computer software applications effectively.</li><li>• Work with machines and workplace technology safely and according to workplace standards.</li><li>• Help others use technology efficiently and safely.</li><li>• Ensure readiness and operational efficiency of workplace technology.</li></ul>
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## Packaging Rules

Completion of twenty two (22) Units made up of ten (10) core Units and twelve (12) elective Units. Total Units must include a minimum of twelve (12) units coded FDF.

NOTE: Units marked with an asterisk (\*) require completion of prerequisite Unit/s identified under the Unit.

### Core Units of Competency

Unit code	Unit title
FDFFS2001A	Implement the food safety program and procedures
FDFFS3001A	Monitor the implementation of quality and food safety programs * <i>FDFFS2001A Implement the food safety program and procedures</i>
FDFGR3003A	Lead flour milling shift operations
FDFGR3004A	Control mill processes and performance
FDFGR4001A	Control power and automation for milling processes
FDFGR4002A	Supervise testing processes for wheat and flour
FDFGR4003A	Manage mill logistics and support services
FDFGR4004A	Establish and supervise dust control procedures in a grain processing enterprise
FDFOHS4002A	Maintain OHS processes
MSAENV472B	Implement and monitor environmentally sustainable work practices

### Elective Units of Competency

Elective selection must include a minimum of six (6) Group A specialist technical and cross sector elective Units. The six (6) remaining elective Units may be selected from:

- Group A
- Group B
- Three (3) from Units packaged at Certificate II in Food Processing
- Five (5) from Units packaged at Certificate III in Food Processing

- Two (2) from Units packaged at Diploma of Food Processing
- Four (4) Units from any nationally endorsed Training Package or accredited course that are packaged at Certificate II (up to 2 Units), Certificate III (up to 2 Units), Certificate IV (up to 4 Units), and Diploma (up to 2 Units)

**GROUP A**

<b>Unit code</b>	<b>Unit title</b>
BSBLED401A	Develop teams and individuals
BSBMGT402A	Implement operational plan
BSBMGT403A	Implement continuous improvement
BSBSMB407A	Manage a small team
FDFST4002A	Monitor the development and implementation of a food QA system
FDFST4003A	Apply digital technology in food processing
FDFST4005A	Document processes and procedures for a food product
FDFST4007A	Establish operational requirements for a food processing enterprise
FDFST4012A	Apply water management principles to the food industry
FDFOP3003A	Operate interrelated processes in a production system
FDFOP3004A	Operate interrelated processes in a packaging system
FDFPPL3002A	Report on workplace performance
FDFPPL3005A	Participate in audit processes
FDFPPL4001A	Manage people in the work area
FDFPPL4002A	Plan and coordinate maintenance
FDFPPL4003A	Schedule and manage production
FDFPPL4004A	Optimise a work process
FDFPPL4005A	Establish process capability
FDFPPL4006A	Manage a work area within budget
FDFPPL4007A	Manage supplier agreements and contracts



Unit code	Unit title
FDFTEC4001A	Determine handling processes for perishable food items
FDFTEC4002A	Manage controlled atmosphere storage
FDFTEC4003A	Control food contamination and spoilage
FDFTEC4004A	Apply basic process engineering principles to food processing* <i>FDFTEC4007A Describe and analyse data using mathematical principles</i> <i>FDFOP2030A Operate a process control interface</i>
FDFTEC4005A	Apply an understanding of food additives
FDFTEC4006A	Apply an understanding of legal requirements of food production
FDFTEC4007A	Describe and analyse data using mathematical principles
FDFTEC4008A	Apply principles of food packaging
FDFTEC4009A	Identify the physical and chemical properties of materials, food and related products
FDFTEC4010A	Manage water treatment processes
FDFTEC4011A	Participate in product recalls
MEM09002B	Interpret technical drawing
MEM30011A	Set up basic pneumatic circuits
MSAPMOPS400A	Optimise process/plant area* <i>MSAPMSUP390A Use structured problem solving tools</i>
MSAPMOPS401A	Trial new process or product
MSAPMOPS405A	Identify problems in fluid power system
MSAPMOPS406A	Identify problems in electronic control systems
MSS014003A	Optimise sustainability of a process or plant area
MSS014004A	Develop team strategies for more sustainable use of resources
MSS015005A	Develop required sustainability reports
MSS024003A	Apply an understanding of environmental principles to a site

Unit code	Unit title
MSS403001A	Implement competitive systems and practices
MSS403002A	Ensure process improvements are sustained
MSS403011A	Facilitate implementation of competitive systems and practices
MSS403030A	Improve cost factors in work practices
MSS403032A	Analyse manual handling processes
MSS403051A	Mistake proof an operational process
MSS404050A	Undertake process capability improvements* <i>MSS404052A Apply statistics to operational processes</i>
MSS404052A	Apply statistics to operational processes
MSS404081A	Undertake proactive maintenance analyses
MSS404082A	Assist in implementing a proactive maintenance strategy
MSS404083A	Support proactive maintenance
PMBTECH406A	Diagnose production equipment problems

### Group B

Unit code	Unit title
AHCBAC204A	Prepare grain storages
BSBCUS501C	Manage quality customer service
BSBHRM402A	Recruit, select and induct staff
BSBINN301A	Promote innovation in a team environment
BSBMGT401A	Show leadership in the workplace
BSBWOR402A	Promote team effectiveness
BSBWOR403A	Manage stress in the workplace
BSBWOR404B	Develop work priorities
BSBWRT401A	Write complex documents

Unit code	Unit title
FDFGR2003A	Operate a grain conditioning process
FDFGR2004A	Operate a grain cleaning process
FDFGR2005A	Operate a purification process
FDFGR2006A	Operate a scalping and grading process
FDFGR2007A	Operate a scratch and sizing process
FDFGR2008A	Operate a break roll process
FDFGR2010A	Handle grain in a storage area
FDFOP2030A	Operate a process control interface
FDFTEC3002A	Implement the pest prevention program
MEM15001B	Perform basic statistical quality control
MSAPMSUP390A	Use structured problem solving tools
MSS402060A	Use planning software systems in operations
MSS402061A	Use SCADA systems in operations
MSS402080A	Undertake root cause analysis
MSS403005A	Facilitate use of a Balanced Scorecard for performance improvement
MSS403010A	Facilitate change in an organisation implementing competitive systems and practices
MSS403013A	Lead team culture improvement
MSS403021A	Facilitate a Just in Time system
MSS403023A	Monitor a levelled pull system of operations
MSS403040A	Facilitate and improve implementation of 5S
MSS403041A	Facilitate breakthrough improvements
MSS404052A	Apply statistics to operational processes
MSS404053A	Use six sigma techniques* <i>MSS404052A Apply statistics to operational processes</i>

<b>Unit code</b>	<b>Unit title</b>
MSS404060A	Facilitate the use of planning software systems in a work area or team
MSS404061A	Facilitate the use of SCADA systems in a team or work area
RIIRIS201B	Conduct local risk control
TLIJ2004A	Implement grain monitoring measures