



**Australian Government**

**Department of Education, Employment and Workplace Relations**

# **FDFLAB3002A Perform non-routine or specialised tests**

**Release 3**

## FDFLAB3002A Perform non-routine or specialised tests

### Modification History

This unit supersedes and is equivalent to FDFLABNRTA Perform non-routine or specialised tests.

September 2012: clarified pre-requisite information.

April 2012: Minor typographical corrections.

### Unit Descriptor

<b>Unit descriptor</b>	This unit covers the skills and knowledge required to perform tests that are atypical of routine process control procedures.
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### Application of the Unit

<b>Application of the unit</b>	This unit has application in a wine operations laboratory environment. It typically targets the worker responsible for applying laboratory principles to perform non-routine or specialised tests.
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### Licensing/Regulatory Information

Not applicable.

### Pre-Requisites

<b>Prerequisite units</b>		
	FDFLAB2006A	Record laboratory data, and
	FDFLAB2001A	Perform basic analytical tests*, or <i>FDFLAB2011A Use basic laboratory equipment</i>
	FDFLAB2002A	Perform basic microbiological tests*, or <i>FDFLAB2012 Maintain aseptic environment</i> <i>FDFLAB2011A Use basic laboratory equipment</i>
	FDFLAB2009A	Perform packaging quality control procedures* <i>FDFLAB2011A Use basic laboratory equipment</i>

## Employability Skills Information

<b>Employability skills</b>	This unit contains employability skills.
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## Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.

Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.

## Elements and Performance Criteria

<b>ELEMENT</b>	<b>PERFORMANCE CRITERIA</b>
1. Prepare for testing	1.1 Samples are registered and prepared for testing 1.2 Materials are prepared to meet requirements 1.3 Services are confirmed as available and ready for use 1.4 Equipment is selected, prepared and checked to confirm readiness for use 1.5 Defects in samples, test materials and equipment are identified, rectified and/or reported
2. Perform testing	2.1 Test method is carried out according to procedure 2.2 Equipment and materials are used according to workplace procedures 2.3 Results are read and interpreted 2.4 Method or procedure is validated 2.5 Out-of-standard results are identified and appropriate action taken
3. Complete testing	3.1 Waste generated by the testing is monitored and cleared according to workplace procedures 3.2 Equipment is prepared for cleaning 3.3 Work is conducted in accordance with workplace environmental guidelines
4. Record information	4.1 Workplace information is recorded in the appropriate format

## Required Skills and Knowledge

This section describes the skills and knowledge required for this unit.

### Required skills include:

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Note: The following required skills should be applied as appropriate to the equipment and processes that are used in the particular winery or workplace.

#### Ability to:

- access and interpret information to identify testing requirements
- select, fit and use appropriate personal protective clothing and/or equipment
- liaise with other work areas. This may include:
  - laboratory
  - winemaking
  - production
  - marketing
  - supply
- confirm supply of necessary materials, equipment and services
- prepare samples for testing
- prepare materials as required
- confirm equipment status and condition. This may include:
  - confirmation that test equipment is operating accurately
  - recognising and rejecting contaminated or faulty glassware and equipment
  - safety checks
  - replacing consumables
  - instrument setting and calibration
- operate equipment according to test procedure
- carry out tests
- read and interpret results
- record results and complete workplace information
- monitor the process and test equipment to identify out-of-standard results or non-compliance
- take corrective action in response to out-of-standards results, anomalies or non-compliance
- report and/or record corrective action according to workplace procedures
- follow procedures to repeat or confirm results
- sort, collect, treat, recycle or dispose of waste
- shut down equipment in response to an emergency situation
- shut down equipment in response to routine shutdown requirements
- maintain work area to meet housekeeping standards
- prepare equipment for cleaning. This may include dismantling equipment or rinsing in preparation for sanitation
- take samples according to enterprise procedures
- clean and sanitise equipment according to enterprise procedures

- carry out routine maintenance according to enterprise procedures
- identify, rectify or report environmental non-compliance according to enterprise procedures
- use oral communication skills/language to fulfil the job role as specified by the organisation, including questioning, active listening, asking for clarification and seeking advice from supervisor
- work cooperatively within a culturally diverse workforce.

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**Required knowledge includes:**

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Note: The following required knowledge should be applied as appropriate to the equipment and processes that are used in the particular winery or workplace.

**Knowledge of:**

- principles of the test method
- purpose of the test
- relevant standards, specifications and basic legislative requirements (e.g. quality, health, safety, labelling and equipment) and their implications
- procedures and operating parameters
- affect of process stages on results
- start-up and set-up procedures as required
- services required
- common causes and knock-on effects of inaccuracies or contamination, and preventive or corrective action required
- how to read and interpret results
- recording requirements and procedures
- Occupational health and safety (OHS) hazards and controls
- lock-out and tag-out procedures as required
- procedures and responsibility for reporting problems
- shutdown sequence as required
- environmental issues and controls
- procedures and responsibility for reporting problems
- cleaning and sanitising requirements of equipment and work area
- recording requirements and procedures
- sampling plan and procedures where relevant
- cleaning and sanitising procedures where relevant
- routine maintenance procedures where relevant.

## Evidence Guide

<b>EVIDENCE GUIDE</b>	
The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.	
Overview of assessment	Assessment must be carried out in a manner that recognises the cultural and literacy requirements of the assessee and is appropriate to the work performed. Competency in this unit must be achieved in accordance with food safety standards and regulations.
Critical aspects for assessment and evidence required to demonstrate competency in this unit	<p>Evidence of ability to:</p> <ul style="list-style-type: none"> <li>• prepare equipment and materials for conducting tests</li> <li>• conduct non-routine or specialised tests according to workplace requirements</li> <li>• interpret results and identify out-of-standard results</li> <li>• conduct housekeeping and dispose of waste according to workplace standards</li> <li>• complete documentation.</li> </ul>
Context of and specific resources for assessment	<p>Assessment must occur in a real or simulated workplace where the assessee has access to:</p> <ul style="list-style-type: none"> <li>• personal protective clothing and equipment as required</li> <li>• work procedures, including advice on company practices, safe work practices, food safety, quality and environmental requirements</li> <li>• instructions, information, specifications and schedules as required</li> <li>• equipment, services and corresponding information as required</li> <li>• products and materials as required</li> <li>• internal and external customers and suppliers as required</li> <li>• cleaning procedures, materials and equipment as required</li> <li>• documentation and recording requirements and procedures.</li> </ul>
Method of assessment	This unit should be assessed together with other units of competency relevant to the function or work role.
Guidance information for assessment	To ensure consistency in one's performance, competence should be demonstrated on more than one occasion over

**EVIDENCE GUIDE**

	a period of time in order to cover a variety of circumstances, cases and responsibilities, and where possible, over a number of assessment activities.
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**Range Statement****RANGE STATEMENT**

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.

**Policies and procedures**

Work is carried out in accordance with workplace procedures, licensing requirements and legislative requirements

**Workplace information**

Workplace information may include:

- Standard Operating Procedures (SOPs)
- specifications
- production schedules
- instructions
- work notes
- Material Safety Data Sheets (MSDS)
- manufacturer instructions
- verbal direction from laboratory manager, supervisor or senior operator

**Tests**

Tests will vary but may involve assisting the Laboratory Manager, Microbiologist, Production Manager, Winemaker or other senior officer with:

- trial work
- testing new materials or product
- investigating complaints
- improving laboratory efficiency
- adjusting methods to conform to regulatory requirements (e.g. food safety and Hazard Analysis Critical Control Points (HACCP))
- meeting client expectations
- conducting enterprise specific procedures

<b>RANGE STATEMENT</b>	
<b>Procedures</b>	<p>Typical procedures may include:</p> <ul style="list-style-type: none"> <li>• titrimetric and qualitative tests</li> <li>• spectrometric methods, such as ultra violet/visible (UV/Vis), infrared (IR), near infrared (NIR), and atomic absorption spectrophotometry (AA)</li> <li>• chromatographic methods, such as thin layer, paper, gas chromatography (GC), high performance (pressure) liquid chromatography (HPLC)</li> <li>• electrochemical methods, such as ion-selective electrodes</li> <li>• microbiological methods, such as isolating and maintaining culture collections, yeast and bacteria propagation and maintenance, and rapid yeast detection (epi-fluorescence)</li> <li>• physical and destructive tests</li> </ul>
<b>Equipment</b>	Equipment may vary and should include that listed in test procedure or directions for conducting analyses
<b>Materials</b>	Materials may vary and should include those listed in test procedure or directions for conducting analyses
<b>Equipment status</b>	<p>Confirming equipment status involves:</p> <ul style="list-style-type: none"> <li>• checking that hygiene and sanitation standards, safety standards and pre-start requirements are met, and that equipment is operational</li> <li>• checking the operation and/or calibration of measuring instrumentation</li> </ul>
<b>Services</b>	<p>Services may include:</p> <ul style="list-style-type: none"> <li>• water</li> <li>• gases</li> <li>• power</li> </ul>
<b>Information systems</b>	<p>Information systems may be:</p> <ul style="list-style-type: none"> <li>• print or screen based</li> </ul>



**Unit Sector(s)**

<b>Unit sector</b>	Wine operations
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