



**Australian Government**

# **MSL40118 Certificate IV in Laboratory Techniques**

**Release 1**

## MSL40118 Certificate IV in Laboratory Techniques

### Modification History

Release	Comments
Release 1	<p>This version was released in <i>MSL Laboratory Operations Training Package Release 2.0</i>.</p> <p>Supersedes and equivalent to MSL40116 Certificate IV in Laboratory Techniques. Core units changed. Elective choices restricted. Total number of units required for qualification changed.</p>

### Qualification Description

This qualification reflects the role of workers who perform a range of laboratory techniques, including manual, semi-automated and fully automated, to collect and prepare samples in a laboratory. They conduct a wide range of basic, and limited range of specialist tests across a variety of industry sectors. Workers may be required to assist other personnel to solve technical problems and to adjust formulations and production mixes. They may also train them to collect samples and conduct basic tests reliably.

Workers have responsibility for their own outputs according to established procedures. Work is carried out according to established procedures often under the direction and supervision of laboratory or quality managers, or scientific/medical professionals. Work is normally subject to frequent progress and quality checks.

No licensing or certification requirements exist at the time of publication.

### Packaging Rules

Total number of units = 15

- 5 core units
- 10 elective units, consisting of:
  - at least 7 units from the electives listed below
  - up to 3 units from any endorsed Training Package or accredited course – these units must be relevant to the work outcome.

#### Core units

Unit code	Unit title
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Unit code	Unit title
MSL924003	Process and interpret data
MSL934004	Maintain and calibrate instruments and equipment
MSL934006	Apply quality system and continuous improvement processes
MSL944002	Maintain laboratory or field workplace safety
MSL953003	Receive and prepare samples for testing

### Elective units

Unit code	Unit title	Prerequisites
MSL904002	Perform standard calibrations	
MSL914002	Prepare practical science classes and demonstrations	
MSL924004	Use laboratory application software	
MSL934005	Contribute to the ongoing development of HACCP plans	
MSL934007	Maintain and control stocks	
MSL954003	Relate anatomical and physiological features to laboratory samples	
MSL954004	Obtain representative samples in accordance with sampling plan	
MSL954005	Prepare mineral samples for analysis	
MSL973016	Perform aseptic techniques	
MSL973019	Perform microscopic examination	
MSL973020	Perform histological procedures	
MSL973021	Conduct field-based acceptance tests for construction materials	
MSL973022	Conduct laboratory-based acceptance tests for construction	

Unit code	Unit title	Prerequisites
	materials	
MSL974016	Perform physical and mechanical tests	
MSL974017	Prepare, standardise and use solutions	
MSL974018	Conduct geotechnical site investigations	
MSL974019	Perform chemical tests and procedures	
MSL974020	Perform food tests	
MSL974021	Perform biological procedures	
MSL974022	Undertake environmental field-based monitoring	
MSL974023	Capture and manage scientific images	
MSL974024	Undertake field-based, remote-sensing monitoring	
MSL974025	Prepare tissue and cell cultures	MSL973016 Perform aseptic techniques
MSL974026	Perform tests to determine the properties of construction materials	MSL973022 Conduct laboratory-based acceptance tests for construction materials
MSL974027	Monitor performance of structures	MSL973021 Conduct field-based acceptance tests for construction materials
MSL974028	Classify soils	MSL973021 Conduct field-based acceptance tests for construction materials MSL973022 Conduct laboratory-based acceptance tests for construction materials
MSL974029	Operate an automated mineral analysis system	

Unit code	Unit title	Prerequisites
MSL975029	Perform histological tests	MSL973019 Perform microscopic examination MSL954003 Relate anatomical and physiological features to laboratory samples
MSL975035	Perform microbiological tests	MSL973016 Perform aseptic techniques MSL973019 Perform microscopic examination
MSL975040	Apply routine chromatographic techniques	MSL974019 Perform chemical tests and procedures
MSL975045	Perform laboratory-based ecological techniques	MSL974021 Perform biological procedures
MSL975048	Apply routine spectrometric techniques	MSL974019 Perform chemical tests and procedures
MSMENV472	Implement and monitor environmentally sustainable work practices	
TAEDEL301	Provide work skill instruction	

## Qualification Mapping Information

Supersedes and equivalent to MSL40116 Certificate IV in Laboratory Techniques

## Links

MSL Laboratory Operations Companion Volume Implementation Guide is available from VETNet -

<https://vetnet.education.gov.au/Pages/TrainingDocs.aspx?q=5c63a03b-4a6b-4ae5-9560-1e3c5f462baa>