**Victorian Purchasing Guide**

**for**

**MSL Laboratory Operations
Training Package**

**Release 2.0**

**August 2018**

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Victorian Purchasing Guide ⎯ Version History

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| --- | --- | --- |
| Training Package Version  | Date VPGApproved | Comments |
| MSL Laboratory Operations Training PackageRelease No 2.0 | 7 September 2018 | Release 2.0 of the MSL Laboratory Operations Training Package incorporates changes to the MSL40118 Certificate IV in Laboratory Techniques and MSL50118 Diploma of Laboratory Technology; in particular, new entry requirements to the Diploma.The codes for the remaining three qualifications in this release have been updated but the qualifications remain equivalent. There are two new units, a new merged unit and while the majority of existing units are equivalent, they have been updated and recoded: The new and merged units are:* MSL954003 Relate anatomical and physiological features to laboratory samples
* MSL975028 Apply advanced embedding and microtomy skills
* MSL974016 Perform physical and mechanical tests (Formerly MSL974005 and MSL974010)

For detailed mapping of qualifications and units between MSL Release 2.0 and MSL Release 1.0 please refer to the MSL Companion Volume Implementation Guide [CLICK HERE](https://vetnet.education.gov.au/Pages/TrainingDocs.aspx?q=5c63a03b-4a6b-4ae5-9560-1e3c5f462baa)   |
| MSL Laboratory Operations Training PackageRelease No 1.0 | 24 April 2016 | The MSL Laboratory Operations Training Package reflects the transitioning of the MSL09 Laboratory Operations Training PackagePackage to the new Standards for Training Packages. This Victorian Purchasing Guide also reflects the changes made from Maximum Nominal Hours to Maximum and Minimum Payable Hours. For detailed mapping of qualifications and units between MSL Release 1.0 and MSL09 please refer to the MSL Implementation Guide [CLICK HERE.](https://vetnet.education.gov.au/Pages/TrainingDocs.aspx?q=5c63a03b-4a6b-4ae5-9560-1e3c5f462baa) |

**MSL Laboratory Operations Release 2.0
Victorian Purchasing Guide**

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INTRODUCTION

What is a Victorian Purchasing Guide?

The Victorian Purchasing Guide provides information for use by Registered Training Organisations (RTOs) in the provision of Victorian government subsidised training.

Specifically the Victorian Purchasing Guide provides the following information related to the delivery of nationally endorsed Training Packages in Victoria:

* The maximum and minimum payable hours available for each qualification.
* Nominal hours for each unit of competency within the Training Package.

Registration

RTOs must be registered by either the Victorian Registration and Qualifications Authority (VRQA) or the Australian Skills Qualification Authority (ASQA) regulatory body to be eligible to issue qualifications and Statements of Attainment under the Australian Qualifications Framework (AQF).

The VRQA is the regulatory authority in Victoria responsible for the registration of education and training providers in VET who provide courses to domestic students only and who offer training in Victoria only or Victoria and Western Australia only.

To register to provide training to international students and in other Australian states and territories you will need to apply with ASQA.

QUALIFICATIONS

|  |  |  |  |
| --- | --- | --- | --- |
| **Code** | **Title** | **Minimum Payable Hours** | **Maximum Payable Hours** |
| MSL20118 | Certificate II in Sampling and Measurement | 314 | 330 |
| MSL30118 | Certificate III in Laboratory Skills | 684 | 720 |
| MSL40118 | Certificate IV in Laboratory Techniques | 1264 | 1330 |
| MSL50118 | Diploma of Laboratory Technology | 1463 | 1540 |
| MSL60118 | Advanced Diploma of Laboratory Operations | 627 | 660 |

UNITS OF COMPETENCY AND NOMINAL HOURS

RTOs are advised that there is a mapping inside the Training Package (Companion Volume) that describes the relationship between new units and any superseded or replaced units from the previous version of **MSL Laboratory Operations Training Package Release 2.0.** Information regarding transition arrangements can be obtained from the state or national VET Regulating Authority (see Contacts and Links section).

You must be sure that all training and assessment leading to qualifications or Statements of Attainment from the **MSL Laboratory Operations Training Package Release 2.0** is conducted against the Training Package units of competency and complies with the assessment requirements.

**List of the Units of Competency and Nominal Hours**

| Unit Code | Unit Title | Nominal Hours |
| --- | --- | --- |
| MSL904002 | Perform standard calibrations | 50 |
| MSL905004 | Perform non-standard calibrations | 60 |
| MSL905005 | Create or modify calibration procedures | 40 |
| MSL905006 | Create or modify automated calibration procedures | 40 |
| MSL912001 | Work within a laboratory or field workplace (induction) | 40 |
| MSL913003 | Communicate with other people | 40 |
| MSL913004 | Plan and conduct laboratory/field work | 40 |
| MSL914002 | Prepare practical science classes and demonstrations | 60 |
| MSL915003 | Provide information to customers | 30 |
| MSL915004 | Schedule laboratory work for a small team | 50 |
| MSL916006 | Develop and maintain laboratory documentation | 30 |
| MSL916007 | Manage and develop teams | 40 |
| MSL916008 | Supervise laboratory operations in work or functional area | 60 |
| MSL916009 | Maintain registration and statutory or legal compliance in work or functional area | 50 |
| MSL916010 | Manage complex projects | 50 |
| MSL922001 | Record and present data | 40 |
| MSL924003 | Process and interpret data | 70 |
| MSL924004 | Use laboratory application software | 60 |
| MSL925003 | Determine measurements of uncertainty | 60 |
| MSL925004 | Analyse data and report results | 80 |
| MSL933005 | Maintain the laboratory/field workplace fit for purpose | 30 |
| MSL933006 | Contribute to the achievement of quality objectives | 30 |
| MSL933007 | Apply critical control point requirements | 40 |
| MSL933008 | Perform calibration checks on equipment and assist with its maintenance | 40 |
| MSL934004 | Maintain and calibrate instruments and equipment | 60 |
| MSL934005 | Contribute to the ongoing development of HACCP plans | 60 |
| MSL934006 | Apply quality system and continuous improvement processes | 80 |
| MSL934007 | Maintain and control stocks | 50 |
| MSL935005 | Authorise the issue of test results | 60 |
| MSL935006 | Assist in the maintenance of reference materials | 30 |
| MSL935007 | Monitor the quality of test results and data | 40 |
| MSL936003 | Maintain quality system and continuous improvement processes within work or functional area | 50 |
| MSL936004 | Conduct an internal audit of the quality system | 40 |
| MSL943003 | Work safely with instruments that emit ionising radiation | 60 |
| MSL943004 | Participate in laboratory or field workplace safety | 40 |
| MSL944002 | Maintain laboratory or field workplace safety | 50 |
| MSL946002 | Implement and monitor WHS and environmental management systems | 60 |
| MSL952001 | Collect routine site samples | 30 |
| MSL952002 | Handle and transport samples or equipment | 30 |
| MSL953003 | Receive and prepare samples for testing | 30 |
| MSL953004 | Operate a robotic sample preparation system | 60 |
| MSL954003 | Relate anatomical and physiological features to laboratory samples | 100 |
| MSL954004 | Obtain representative samples in accordance with sampling plan | 40 |
| MSL954005 | Prepare mineral samples for analysis | 60 |
| MSL955002 | Supervise a robotic sample preparation system | 50 |
| MSL972001 | Conduct routine site measurements | 30 |
| MSL973013 | Perform basic tests | 60 |
| MSL973014 | Prepare working solutions | 50 |
| MSL973015 | Prepare culture media | 30 |
| MSL973016 | Perform aseptic techniques | 40 |
| MSL973017 | Assist with fieldwork | 40 |
| MSL973018 | Prepare trial batches for evaluation | 40 |
| MSL973019 | Perform microscopic examination | 40 |
| MSL973020 | Perform histological procedures | 40 |
| MSL973021 | Conduct field-based acceptance tests for construction materials | 60 |
| MSL973022 | Conduct laboratory-based acceptance tests for construction materials | 50 |
| MSL973023 | Perform fire pouring techniques | 50 |
| MSL973024 | Perform site investigation activities | 40 |
| MSL974016 | Perform physical and mechanical tests | 140 |
| MSL974017 | Prepare, standardise and use solutions | 100 |
| MSL974018 | Conduct geotechnical site investigations | 60 |
| MSL974019 | Perform chemical tests and procedures | 100 |
| MSL974020 | Perform food tests | 100 |
| MSL974021 | Perform biological procedures | 130 |
| MSL974022 | Undertake environmental field-based monitoring | 80 |
| MSL974023 | Capture and manage scientific images | 40 |
| MSL974024 | Undertake field-based, remote-sensing monitoring | 60 |
| MSL974025 | Prepare tissue and cell cultures | 50 |
| MSL974026 | Perform tests to determine the properties of construction materials | 90 |
| MSL974027 | Monitor performance of structures | 90 |
| MSL974028 | Classify soils | 80 |
| MSL974029 | Operate an automated mineral analysis system | 60 |
| MSL975028 | Apply advanced embedding and microtomy skills | 150 |
| MSL975029 | Perform histological tests | 200 |
| MSL975030 | Perform immunohaematological tests | 80 |
| MSL975031 | Supervise sampling, inspections and testing at construction sites | 80 |
| MSL975032 | Provide input to production trials | 40 |
| MSL975033 | Perform tissue and cell culture techniques | 100 |
| MSL975034 | Perform molecular biology tests and procedures | 150 |
| MSL975035 | Perform microbiological tests | 140 |
| MSL975036 | Perform haematological tests | 130 |
| MSL975037 | Perform chemical pathology tests | 130 |
| MSL975038 | Conduct sensory analysis | 40 |
| MSL975039 | Apply electrophoretic techniques | 100 |
| MSL975040 | Apply routine chromatographic techniques | 120 |
| MSL975041 | Perform fire assay techniques | 60 |
| MSL975042 | Design and supervise complex environmental field surveys | 40 |
| MSL975043 | Prepare animal and plant material for display | 50 |
| MSL975044 | Perform complex tests to measure engineering properties of materials | 40 |
| MSL975045 | Perform laboratory-based ecological techniques | 60 |
| MSL975046 | Perform complex tests to measure chemical properties of materials | 50 |
| MSL975047 | Apply complex instrumental techniques | 50 |
| MSL975048 | Apply routine spectrometric techniques | 150 |
| MSL975049 | Apply routine electrometric techniques | 40 |
| MSL975050 | Perform food analyses | 60 |
| MSL975051 | Supervise geotechnical site investigations | 80 |
| MSL975052 | Locate, record and collect forensic samples | 90 |
| MSL975053 | Perform complex laboratory testing of forensic samples | 120 |
| MSL975054 | Perform physical examination of forensic samples | 100 |
| MSL975055 | Prepare tissue and cell cultures | 50 |
| MSL976004 | Prepare plans and quality assurance procedures for environmental field activities | 50 |
| MSL976005 | Evaluate and select appropriate test methods and/or procedures | 40 |
| MSL977005 | Validate test methods | 40 |
| MSL977006 | Contribute to the development of products and applications | 50 |
| MSL977007 | Troubleshoot equipment and/or production processes | 50 |
| MSL977008 | Develop or adapt analyses and procedures | 50 |

SAMPLE TRAINING PROGRAMS

A range of Sample Training Plans have been provided to demonstrate the flexibility of qualifications contained in the **MSL Laboratory Operations Training Package Release 2.0**, but are by no means mandatory.

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| **Occupation** | Sampling / testing assistant |
| **Qualification Title**  | Certificate II in Sampling and Measurement |
| **Qualification Code** | MSL20118 |
| **Description** | Appropriate for a person responsible for taking samples and conducting simple tests in a manufacturing or field environment. |
| **Unit Code** | **Unit Title** | **Hours** |
| **Core** |   |
| MSL912001 | Work within a laboratory or field workplace (induction) | 40 |
| MSL922001 | Record and present data | 40 |
| MSL943004 | Participate in laboratory or field workplace safety | 40 |
| MSMENV272 | Participate in environmentally sustainable work practices | 30 |
| **Elective units** |   |  |
| MSL952001 | Collect routine site samples | 30 |
| MSL952002 | Handle and transport samples or equipment | 30 |
| MSL943003 | Work safely with instruments that emit ionising radiation | 60 |
| MSL973013 | Perform basic tests | 60 |
|   | **Total** | **330** |
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| **Occupation** | Laboratory Assistant  |
| **Qualification Title**  | Certificate III in Laboratory Skills |
| **Qualification Code** | MSL30118 |
| **Description** | Appropriate for a person working in a materials laboratory performing sampling and testing.  |
| **Unit Code** | **Unit Title** | **Hours** |
| **Core** |   |
| MSL913003 | Communicate with other people | 40 |
| MSL913004 | Plan and conduct laboratory/field work | 40 |
| MSL922001 | Record and present data | 40 |
| MSL933006 | Contribute to the achievement of quality objectives | 30 |
| MSL943004 | Participate in laboratory or field workplace safety | 40 |
| MSMENV272 | Participate in environmentally sustainable work practices | 30 |
| **Electives** |   |  |
| MSL933008 | Perform calibration checks on equipment and assist with its maintenance | 40 |
| MSL954005 | Prepare mineral samples for analysis | 60 |
| MSL973013 | Perform basic tests | 60 |
| MSL973021 | Conduct field-based acceptance tests for construction materials | 60 |
| MSL973022 | Conduct laboratory-based acceptance tests for construction materials | 50 |
| MSL974016 | Perform physical and mechanical tests | 140 |
| MSL974026 | Perform tests to determine the properties of construction materials | 90 |
|  | **Total** | **720** |

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| **Occupation** | Technical Assistant |
| **Qualification Title**  | MSL40118 |
| **Qualification Code** | Certificate IV in Laboratory Techniques |
| **Description** | Appropriate for a person working as a laboratory Technical Assistant across a range of laboratory operations. |
| **Unit Code** | **Unit Title** | **Hours** |
| **Core** |   |
| MSL924003 | Process and interpret data | 70 |
| MSL934004 | Maintain and calibrate instruments and equipment | 60 |
| MSL934006 | Apply quality system and continuous improvement processes | 80 |
| MSL944002 | Maintain laboratory or field workplace safety | 50 |
| MSL953003 | Receive and prepare samples for testing | 30 |
| **Electives** |   |  |
| MSL935007 | Monitor the quality of test results and data | 40 |
| MSL954003 | Relate anatomical and physiological features to laboratory samples | 100 |
| MSL973016 | Perform aseptic techniques | 40 |
| MSL973019 | Perform microscopic examination | 40 |
| MSL974019 | Perform chemical tests and procedures | 100 |
| MSL974021 | Perform biological procedures | 130 |
| MSL975029 | Perform histological tests | 200 |
| MSL975034 | Perform molecular biology tests and procedures | 150 |
| MSL975035 | Perform microbiological tests | 140 |
| MSL975039 | Apply electrophoretic techniques | 100 |
|   | **Total** | **1330** |
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| **Occupation** | Technical Officer |
| **Qualification Title**  | Diploma of Laboratory Technology |
| **Qualification Code** | MSL50118 |
| **Description** | Appropriate for a person working in a pathology laboratory performing a range of tests on body tissues and fluids. |
| **Unit Code** | **Unit Title** | **Hours** |
| **Core** |   |
| MSL924003 | Process and interpret data | 70 |
| MSL924004 | Use laboratory application software | 60 |
| MSL925004 | Analyse data and report results | 80 |
| MSL934004 | Maintain and calibrate instruments and equipment | 60 |
| MSL935007 | Monitor the quality of test results and data | 40 |
| **Electives** |   |  |
| MSL913004 | Plan and conduct laboratory/field work | 40 |
| MSL954003 | Relate anatomical and physiological features to laboratory samples | 100 |
| MSL975029 | Perform histological tests | 200 |
| MSL975033 | Perform tissue and cell culture techniques | 100 |
| MSL975034 | Perform molecular biology tests and procedures | 150 |
| MSL975035 | Perform microbiological tests | 140 |
| MSL975036 | Perform haematological tests | 130 |
| MSL975039 | Apply electrophoretic techniques | 100 |
| MSL975040 | Apply routine chromatographic techniques | 120 |
| MSL975048 | Apply routine spectrometric techniques | 150 |
|   | **Total** | **1540** |
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| **Occupation** | Senior Technical Officer |
| **Qualification Title**  | Advanced Diploma of Laboratory Operations |
| **Qualification Code** | MSL60118 |
| **Description** | Appropriate for a person working as a senior laboratory technician responsible for planning, coordinating, evaluating and reporting within a work area or for a project team.  |
| **Unit Code** | **Unit Title** | **Hours** |
| **Core** |   |
| MSL916006 | Develop and maintain laboratory documentation | 30 |
| MSL916007 | Manage and develop teams | 40 |
| MSL916008 | Supervise laboratory operations in work or functional area | 60 |
| MSL916009 | Maintain registration and statutory or legal compliance in work or functional area | 50 |
| MSL936003 | Maintain quality system and continuous improvement processes within work or functional area | 50 |
| MSL946002 | Implement and monitor WHS and environmental management systems | 60 |
| MSMENV472 | Implement and monitor environmentally sustainable work practices | 40 |
| **Elective** |   |  |
| MSL916010 | Manage complex projects | 50 |
| MSL924003 | Process and interpret data | 70 |
| MSL925004 | Analyse data and report results | 80 |
| MSL936004 | Conduct an internal audit of the quality system | 40 |
| MSL976005 | Evaluate and select appropriate test methods and/or procedures | 40 |
| MSL977006 | Contribute to the development of products and applications | 50 |
|  | **Total** | **660** |

CONTACTS AND LINKS

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| **Curriculum Maintenance Manager (CMM)** |
| General Manufacturing  | The CMM service is provided by Executive Officers located within Victorian TAFE institutes on behalf of the Higher Education and Skills Group.  | Paul Saunders: Address: Chisholm Institute, PO Box 684, Dandenong, Vic. 3175. Phone: 9238 8448 Email: paul.saunders@chisholm.edu.au  |
| **Service Skills Organisation (SSO)** |
| Innovation & Business Skills Australia (IBSA) | This SSO is responsible for developing this **MSL Laboratory Operations Training Package** and can be contacted for further information. You can also source copies of the Training Package and support material. | Address:Level 11, 176 Wellington Parade,East Melbourne, VIC 3002. Phone: 03 9815 7099Email: manufacturing@ibsa.org.auIBSA website can be found [here](https://ibsa.org.au/). |
| **National Register for VET in Australia** |
| Training.gov.au (TGA) | TGA is the Australian governments’ official National Register of information on Training Packages, qualifications, courses, units of competency and RTOs. | National Register website can be found [here](http://training.gov.au). |
| **Australian Government** |
| Department of Education and Training  | The Commonwealth Department is responsible for national policies and programmes that help Australians access quality vocational education and training.  | The Commonwealth Department of Education and Training website can be found [here](https://education.gov.au/) |
| **State Government** |
| Department of Education and Training (DET)  | DET is responsible for funding and the implementation of Vocational Education and Training (VET) in Victoria, including Apprenticeships and Traineeships policy.  | (03) 9637 2000The Victorian Department of Education and Training website can be found [here](http://www.education.vic.gov.au/) |
| **National VET Regulatory Authority** |
| Australian Skills Quality Authority (ASQA) | ASQA is the national regulator for Australia’s VET sector.  | Info line: 1300 701 801 ASQA’s website can be found [here](http://www.asqa.gov.au/) |
| **Victorian State VET Regulatory Authority** |
| Victorian Registration and Qualifications Authority (VRQA) | The VRQA is a statutory authority responsible for the registration and regulation of Victorian RTOs and for the regulation of apprenticeships and traineeships in Victoria. | (03) 9637 2806 VRQA’s website can be found [here](http://www.vrqa.vic.gov.au/)  |

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| **Industry Regulatory Bodies** |
| WorkSafe Victoria | The industry Regulatory body can provide advice on licensing, legislative or regulatory requirements which may impact on the delivery of training or the issuance of qualifications in this Training Package. WorkSafe needs to provide written verification before High Risk Work Units can be added to an RTO’s scope of registration. | Address: 222 Exhibition Street, Melbourne, 3000. Phone: (03) 9641 1444 or 1800 136 089 (toll free)Email:info@worksafe.vic.gov.au Worksafe Victoria’s website can be found [here](http://www.worksafe.vic.gov.au/) |

GLOSSARY

|  |  |
| --- | --- |
| **Code** | Nationally endorsed Training Package qualification code. |
| **Title** | Nationally endorsed Training Package qualification title. |
| **Unit Code** | Nationally endorsed Training Package unit code. |
| **Unit Title** | Nationally endorsed Training Package unit title. |
| **Maximum Payable Hours** | The maximum number of hours the Victorian Government will subsidise under the Victorian Training Guarantee for the achievement of the minimum realistic vocational outcome of the qualification, as determined by the qualification packaging rules.  The Maximum Payable Hours do not cover every possible combination of core and elective units available for a specific qualification.    |
| **Minimum Payable Hours** | The number of hours the Victorian government designates as the minimum required to deliver a qualification, taking into account contextualisation and integrated delivery efficiencies. |
| **Scope of Registration** | Scope of registration specifies the AQF qualifications and/or units of competency the training organisation is registered to issue and the industry training and/or assessment services it is registered to provide. |
| **Nominal Hours** | The anticipated hours of supervised learning or training deemed necessary to conduct training and assessment activities associated with the program of study. These hours are determined by the Victorian State Training Authority. Nominal hours may vary for a qualification depending on the units of competency selected. |