**Victorian Purchasing Guide**

**for**

**MEM**

**Manufacturing and Engineering**

**Training Package**

**Release 1**

**May 2015**

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Victorian Purchasing Guide - Version History

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| --- | --- | --- |
| Training Package Version | Date VPG Released | Comments |
| MEM – Manufacturing and Engineering  Training Package  Release 1 | 22 June 2015 | Initial Release of the MEM Manufacturing and Engineering Training Package |

**MEM – Manufacturing and Engineering Training Package Victorian Purchasing Guide**

**CONTENTS**

INTRODUCTION 5

What is a Victorian Purchasing Guide? 5

Victorian Government subsidised training 5

QUALIFICATIONS 6

UNITS OF COMPETENCY 7

CONTACTS AND LINKS 10

GLOSSARY 12

INTRODUCTION

What is a Victorian Purchasing Guide?

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

Specifically, the VPG provides the following information related to the delivery of nationally endorsed Training Packages in Victoria:

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

They also contain sample training programs which reflect a vocational outcome for the particular qualification it has been developed for.

Victorian Government subsidised training

To deliver government subsidised training in Victoria, an RTO must have an approved VET funding contract with the Department of Education and Training (DET).

The VET funding contract and related guidelines set out the requirements that RTOs must abide by to maintain compliance as contracted providers in receipt of government subsidy. The contract and guidelines set standards of behaviour, as well as prescribing minimum requirements with regard to provider practice in the delivery of training services.

For further information relating to obtaining a VET funding contract, please visit the Skills Victoria Training System (SVTS) website: <http://www.education.vic.gov.au/svts>

QUALIFICATIONS

| **Code** | **Title** | **Minimum Payable Hours** | **Maximum Payable Hours** |
| --- | --- | --- | --- |
| MEM31215 | Certificate III in Engineering – Industrial Electrician | 1055 | 1100 |

UNITS OF COMPETENCY

| Unit Code | Unit Title | Nominal Hours |
| --- | --- | --- |
| MEM10016 | Terminate and test electrical wiring and accessories | 40 |
| MEM10018 | Select cable types and sizes to suit loads and electrical installation environment | 40 |
| MEM10019 | Select circuit protection devices by type and rating, fit to switchboards and install earthing | 40 |
| MEM10020 | Install low voltage cabling and fit-off accessories, appliances and equipment | 40 |
| MEM10021 | Inspect, test and verify electrical installations | 40 |
| MEM10022 | Commission and decommission high and low voltage equipment or installations | 40 |
| MEM10023 | Design and connect control switching of circuits for building services and industrial equipment | 40 |
| MEM10024 | Install and troubleshoot luminaires and ancillary equipment | 40 |
| MEM10025 | Undertake a capstone assessment | 10 |
| MEM13016 | Work in hazardous areas | 20 |
| MEM13017 | Apply safety practices, procedures and compliance standards associated with licensed electrical work | 20 |
| MEM18100 | Fault-find, test and rectify AC machines and circuits | 40 |
| MEM18102 | Fault-find, test and rectify single and three-phase transformers | 40 |
| MEM18103 | Fault-find, test and rectify electrical circuits and equipment | 40 |
| MEM18104 | Dismantle, replace and assemble electrical components and equipment | 40 |
| MEM18105 | Disconnect and reconnect high voltage fixed wired equipment | 40 |
| MEM18106 | Terminate communication and data cables | 40 |
| MEM18108 | Troubleshoot analog and digital electronic equipment | 40 |
| MEM18109 | Troubleshoot instrumentation systems and equipment | 40 |

**SAMPLE TRAINING PROGRAMS**

The following pages list a range of Sample Training Programs across the different qualification levels within the **MEM – Manufacturing and Engineering Training Package** to demonstrate how units might be packaged to meet a particular vocational outcome.

|  |  |  |
| --- | --- | --- |
| **Occupation/ Work Function** | Industrial Electrician | |
| **Qualification Title** | Certificate III in Engineering - Industrial Electrician | |
| **Qualification Code** | MEM31215 | |
| **Description** | Appropriate for a person working as a Licensed Industrial Electrician in the Mining, Oil or Gas industries. | |
| **Notes** | For advice on how to choose electives others than those listed below, please refer to the Manufacturing and Engineering Training Package and its Qualifications Packaging Rules or contact the CMM Engineering Industries on (03)9286 9934 | |
| **Unit Code** | **Unit Title** | **Hours** |
| ***Core*** | | |
| MEM10016 | Terminate and test electrical wiring and accessories | 40 |
| MEM10018 | Select cable types and sizes to suit loads and electrical installation environment | 40 |
| MEM10019 | Select circuit protection devices by type and rating, fit to switchboards and install earthing | 40 |
| MEM10020 | Install low voltage cabling and fit-off accessories, appliances and equipment | 40 |
| MEM10021 | Inspect, test and verify electrical installations | 40 |
| MEM10022 | Commission and decommission high and low voltage equipment or installations | 40 |
| MEM10023 | Design and connect control switching of circuits for building services and industrial equipment | 40 |
| MEM10024 | Install and troubleshoot luminaires and ancillary equipment | 40 |
| MEM10025 | Undertake a capstone assessment | 10 |
| MEM12023A | Perform engineering measurements | 30 |
| MEM12024A | Perform computations | 30 |
| MEM13014A | Apply principles of occupational health and safety in the work environment | 10 |
| MEM13017 | Apply safety practices, procedures and compliance standards associated with licensed electrical work | 20 |
| MEM14004A | Plan to undertake a routine task | 10 |
| MEM14005A | Plan a complete activity | 20 |
| MEM15002A | Apply quality systems | 20 |
| MEM15024A | Apply quality procedures | 10 |
| MEM16006A | Organise and communicate information | 20 |
| MEM16007A | Work with others in a manufacturing, engineering or related environment | 10 |
| MEM16008A | Interact with computing technology | 20 |
| MEM17003A | Assist in the provision of on the job training | 20 |
| MEM18001C | Use hand tools | 20 |
| MEM18100 | Fault-find, test and rectify AC machines and circuits | 40 |
| MEM18102 | Fault-find, test and rectify single and three-phase transformers | 40 |
| MEM18103 | Fault-find, test and rectify electrical circuits and equipment | 40 |
| MEM18104 | Dismantle, replace and assemble electrical components and equipment | 40 |
| MSAENV272B | Participate in environmentally sustainable work practices | 30 |
| UEENEEE101A | Apply Occupational Health and Safety regulations, codes and practices in the workplace | 20 |
| UEENEEE104A | Solve problems in d.c. circuits | 80 |
| UEENEEE107A | Use drawings, diagrams, schedules, standards, codes and specifications | 40 |
| UEENEEG101A | Solve problems in electromagnetic devices and related circuits | 60 |
| UEENEEG102A | Solve problems in low voltage a.c. circuits | 80 |
| ***Elective*** | | |
| MEM18109 | Troubleshoot instrumentation systems and equipment | 40 |
| MEM13016 | Work in hazardous areas | 20 |
| **Total** |  | **1100** |

CONTACTS AND LINKS

|  |  |  |
| --- | --- | --- |
| **Curriculum Maintenance Manager (CMM)** | | |
| Engineering Industries | The CMM Service is provided by Executive Officers, across all industry areas covered by Training Packages.  They can assist with questions on payable and nominal hours. | Dennis Crowley  Box Hill Institute  Private Bag 2014, Box Hill VIC, 3128  Phone: (03) 9286-9934  Fax: (03) 9286-9838  Email: [D.Crowley@boxhill.edu.au](mailto:D.Crowley@boxhill.edu.au) |
| **Industry Skills Council (ISC)** | | |
| Manufacturing Skills Australia | This ISC is responsible for developing this **MEM – Manufacturing and Engineering Training Package**, companion volumes and support material and can be contacted for further information. | Phone: 1800 358 458  Fax: (02) 9955 8044  Email: [info@mskills.org.au](mailto:info@mskills.org.au)  Web: <http://www.mskills.com.au> |
| **National Register for VET in Australia** | | |
| Training.gov.au (TGA) | TGA is the Australian governments’ official National Register of information on Training Packages, Accredited Courses, qualifications, units of competency and RTOs. | <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. | <https://education.gov.au/> |
| **Victorian 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 2000  [www.education.vic.gov.au](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  [www.asqa.gov.au](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  [www.vrqa.vic.gov.au](http://www.vrqa.vic.gov.au/) |
| **Industry Regulatory Bodies applicable to this Training Package** | | |
| Energy Safe 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. | Phone: (03) 9203 9700  Fax: (03) 9686 2197  Email: [info@esv.vic.gov.au](mailto:info@esv.vic.gov.au)  Web: <http://www.esv.vic.gov.au/> |
| WorkSafe Victoria | WorkSafe needs to provide written verification before High Risk Work Units can be added to an RTO’s scope of registration. | [www.worksafe.vic.gov.au](http://www.worksafe.vic.gov.au)  Info line: 1800 136 089 |

GLOSSARY

|  |  |
| --- | --- |
| **Code** | Nationally endorsed Training Package qualification code. |
| **Title** | Nationally endorsed Training Package qualification title. |
| **Unit Code** | Nationally endorsed Training Package unit of competency code. |
| **Unit Title** | Nationally endorsed Training Package unit of competency title. |
| **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 any 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. |
| **Nominal Hours** | Nominal hours reflect the anticipated time taken to deliver and assess the outcomes of a unit of competency excluding unsupervised delivery or the time taken for repeated practical application of skills. Nominal hours are determined by the Victorian State Training Authority (DET) and are primarily developed for funding purposes in Victoria. |