



Australian Government

MEM31010 Certificate III in Watch and Clock Service and Repair

Release: 1

MEM31010 Certificate III in Watch and Clock Service and Repair

Modification History

Not Applicable

Description

This qualification has been specifically developed for apprentices in trades related to watch and clock servicing and repair and describes the skills and knowledge required to perform trade work in watch and clock service and repair. The qualification packaging has been developed on an assumption that competency will be developed through a combination of on and off-the-job learning strategies. The qualification may also be achieved through formal skills recognition assessment processes.

Job roles/employment outcome

The Certificate III in Watch and Clock Service and Repair specifies the competencies required for employment as a watch and clock service and repair tradesperson, including the disassembly, assembly, installation, adjustment, replacement, modification, testing, fault-finding, and maintenance and service of watch and clock cases, mechanisms and other relevant components.

Employment outcomes directly associated with this qualification are found in a variety of watch and clock service related businesses, including retail stores, manufacturer service centres and specialist watch and clock service and repair businesses, including self employment.

Application

This qualification is designed to reflect the industry recognised skills profile associated with trade work as a watch and clock service and repair tradesperson. Skills development would typically be undertaken through an Australian Apprenticeship arrangement where the integration of on and off-the-job training would be specified in the Training Plan associated with the Training Contract between the employer and apprentice.

Pathways Information

Pathways into the qualification

There is no qualification entry requirement. It is assumed that the learner is engaged as an apprentice under a Training Contract and is involved in appropriate structured on-the-job learning while undertaking this qualification.

This qualification may be accessed by direct entry. Credit for relevant units of competency achieved should be granted towards this qualification for those who have completed MEM10105 Certificate I in Engineering, MEM20105 Certificate II in Engineering, MEM20205 Certificate II in Engineering - Production Technology or other qualifications relevant to watch and clock service and repair. Credit towards this qualification may also include units of competency contained within relevant pre-vocational and pre-apprenticeship programs and Statements of Attainment.

Pathways from the qualification

Further training pathways from this qualification include MEM40105 Certificate IV in Engineering and MEM50105 Diploma of Engineering - Advanced Trade or other relevant qualifications.

Competitive Manufacturing qualifications are available for employees at this level who already possess trade and other technical skills and who require additional manufacturing practice skills above those available in this qualification.

Licensing considerations

There are no specific licences that relate to this qualification.

Licensing/Regulatory Information

Refer to Pathways Information

Entry Requirements

Not Applicable

Employability Skills Summary

EMPLOYABILITY SKILLS QUALIFICATION SUMMARY	
Employability Skill	Industry/enterprise requirements for this qualification include:
Communication	• Read, interpret, follow and communicate information on written job packets, specifications, standard operating procedures, charts, lists, drawings and other applicable reference documents • Produce sketches, illustrations and renderings • Check and clarify task-related information • Recognise and use common horological terminology
Teamwork	• Work alone or as part of a team • Contribute to a group effort in order to plan and carry out work • Identify work roles, communicate and cooperate with others
Problem solving	• Undertake numerical operations, geometry and calculations/formulae (including addition, subtraction, multiplication,

EMPLOYABILITY SKILLS QUALIFICATION SUMMARY

	division, fractions and decimals, percentages and proportions, simple ratios and averages) • Use appropriate measuring techniques • Inspect quality of own or other employee's work • Interpret service and repair requirements and translate into practical outcomes • Use diagnostic skills to identify and determine causes of problems • Diagnose precision micro-mechanisms
Initiative and enterprise	• Apply the competency in new and different situations and contexts • Identify actual and foreseeable workplace hazards during course of work • Modify work plan to overcome unforeseen difficulties or developments that occur as work progresses • Economise material use and minimise waste • Participate in improvement procedures, including process, quality and internal/external customer/supplier relationships
Planning and organising	• Plan, prioritise and sequence work operations • Select and use planning techniques and tools • Organise and analyse information relevant to work • Set up jobs prior to commencement of work, including selection of appropriate tools, equipment and materials and adjustment of equipment
Self-management	• Carry out work safely and in accordance with company policy and procedures, manufacturer recommendations and legislative requirements • Monitor performance of operation or quality of product or service to ensure customer satisfaction • Take responsibility for own work outcomes • Apply techniques, procedures, tools and equipment for compliance with site or manufacturers' specifications
Learning	• Check and clarify task-related information with appropriate personnel or technical adviser • Identify customers' requirements with respect to the operation or quality of the product or service • Assess and modify own work practices • Use manuals, online help and other reference materials, such as catalogues/lists as required • Maintain current knowledge of applicable standards, legislation, codes of practice and product/process developments • Assist with on-the-job training and assessment

EMPLOYABILITY SKILLS QUALIFICATION SUMMARY**Technology**

- Select and use appropriate tools, equipment, materials and machines, including high tolerance/precision tools and equipment
- Use high magnification optics
- Use watch and clock service and repair techniques, tools, processes and procedures
- Select and use appropriate measuring/testing devices
- Navigate technology to access/input/store/retrieve/save and produce information/data using appropriate software applications

Packaging Rules**Packaging rules**

The minimum requirements for achievement of the Certificate III in Watch and Clock Service and Repair are:

- completion of all core units of competency listed below
- completion of elective units to a total value of at least 73 points, chosen as described below:
 - watch and clock stream units from Group A to the value of at least 40 points; and
 - trade specialisation units from Group B to bring the total value to at least 73 points.

Units with prerequisites are marked with an asterisk. Points associated with prerequisites count towards the total (refer to units and prerequisites listing in Appendix 2, Volume 1).

Appropriate Group B elective units to the value of 16 points may be chosen from other endorsed Training Packages and accredited courses where those units are available for inclusion at Certificate III.

Registered Training Organisations must seek a determination from Manufacturing Skills Australia in respect of the allocation of points values for units of competency drawn from other Training Packages or accredited courses.

Note that the elective units listed below include all of the units that are approved for selection from the MEM Training Package for use in this qualification. This meets the NQC requirement that one sixth of the total units must be able to be selected from other qualifications in the same Training Package.

Only select units that would be suitable for occupational outcomes in a watch and clock service and repair environment.

Core units of competency

- Select all of the units from this list.

Unit code	Unit title
MEM12023A	Perform engineering measurements
MEM12024A	Perform computations
MEM13014A	Apply principles of occupational health and safety in the work environment
MEM14004A	Plan to undertake a routine task
MEM14005A	Plan a complete activity
MEM15002A	Apply quality systems
MEM15024A	Apply quality procedures
MEM16006A	Organise and communicate information
MEM16007A	Work with others in a manufacturing, engineering or related environment
MEM16008A	Interact with computing technology
MEM17003A	Assist in the provision of on the job training
MSAENV272B	Participate in environmentally sustainable work practices

Elective units of competency

Group A - Watch and Clock stream units

- Select units from this list to the value of at least 40 points.

Unit code	Unit title	P
MEM05001B	Perform manual soldering/desoldering, electrical/electronic components	4

Unit code	Unit title	P
MEM06007B	Perform basic incidental heat/quenching, tempering and annealing	2
MEM07005C	Perform general machining*	8
MEM09002B	Interpret technical drawing	4
MEM12002B	Perform electrical/electronic measurements	2
MEM18001C	Use hand tools	2
MEM21001A	Replace watch batteries, capacitors and bands	2
MEM21002A	Perform watch movement exchange *	2
MEM21003A	Perform watch case servicing, repair and refurbishment *	4
MEM21004A	Clean watch and clock components	2
MEM21005A	Diagnose faults in quartz watches *	2
MEM21006A	Service quartz watches *	4
MEM21007A	Service complex quartz watches *	4
MEM21008A	Service mechanical watches *	4
MEM21009A	Inspect, diagnose, adjust and repair mechanical watches *	4
MEM21010A	Service watch power generating systems *	2
MEM21011A	Service calendar and other dial indication mechanisms for watches *	4
MEM21012A	Service and repair mechanical watch oscillating systems *	4
MEM21013A	Service, test and adjust watch escapements *	4

Unit code	Unit title	P
MEM21014A	Service mechanical chronograph watches *	6
MEM21015A	Perform precision watch timing and adjustment *	6
MEM21016A	Install and set up clocks	2
MEM21017A	Service and repair clock timepieces	6
MEM21018A	Service clock escapements and oscillating systems *	4
MEM21019A	Service and repair clock striking mechanisms *	4
MEM21020A	Service and repair clock chiming mechanism *	6
MEM21021A	Restore clockwork mechanisms *	6
MEM21022A	Manufacture watch and clock components*	6
MEM21023A	Plan, set up and operate horological workshop or service centre	4
MEM30025A	Analyse a simple electrical system circuit*	4

Group B - specialisation units

- Select units from the Certificate III Trade Specialisation units listed in Appendix I, Volume 1 of this Training Package to bring the total value of units to at least 73 points, including any prerequisites.
- Appropriate specialisation units to the value of 16 points may be chosen from other endorsed Training Packages and accredited courses where those units are available for inclusion at Certificate III.
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