



Australian Government

MEM19008 Prepare jewellery designs

Release: 1

MEM19008 Prepare jewellery designs

Modification History

Release 1. Supersedes and is equivalent to MEM19008B Prepare jewellery designs

Application

This unit of competency defines the skills and knowledge required to prepare designs and associated documentation required to inform manufacture of jewellery items.

Where computer-aided design (CAD) is required to be used appropriate units should also be selected.

Where jewellery illustrations only are prepared unit MEM19002 Prepare jewellery illustrations should also be selected.

No licensing, legislative or certification requirements apply to this unit at the time of publication.

Band: A

Unit Weight: 6

Pre-requisite Unit

MEM11011	Undertake manual handling
MEM13015	Work safely and effectively in manufacturing and engineering
MEM16006	Organise and communicate information

Competency Field

Jewellery and horological

Elements and Performance Criteria

Elements describe the essential outcomes.		Performance criteria describe the performance needed to demonstrate achievement of the element.	
1	Determine job requirements	1.1	Follow standard operating procedures (SOPs)
		1.2	Comply with work health and safety (WHS) requirements at all times

Elements describe the essential outcomes.

Performance criteria describe the performance needed to demonstrate achievement of the element.

		1.3	Use appropriate personal protective equipment (PPE) in accordance with SOPs
		1.4	Identify job requirements from specifications, design documentation, illustrations, design drawings, job sheets or work instructions
2	Identify design requirements	2.1	Determine design requirements, purpose and needs
		2.2	Undertake further research and idea development
		2.3	Consolidate information and analyse
		2.4	Advise customer on design considerations and limitations and gain further clarification, as necessary
3	Develop design concept	3.1	Develop concept, employing design principles
		3.2	Document design process
		3.3	Establish basic forms and proportion
		3.4	Apply required decorative aesthetics
		3.5	Confirm design concept
4	Produce drawings for item manufacture	4.1	Select appropriate manufacturing technologies
		4.2	Apply drawing techniques in drawing development
		4.3	Produce working technical and finished drawings
		4.4	Specify production requirements and instructions and communicate to appropriate persons

Foundation Skills

This section describes those required skills (reading, writing, oral communication and numeracy) that are essential to workplace performance in this unit of competency.

Foundation skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

This field allows for different work environments and conditions that may affect performance. Essential operating conditions that may be present (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) are included.

Design requirements include one (1) or more of the following:	• materials • stone specifications • special requirements • size • budgetary range • end-use • special customer requirements
Design principles include one (1) or more of the following:	• correct construction techniques • construction limitations of materials • drawing to scale • form, function, harmony and line definition (interpretive and actual)
Design concept includes one (1) or more of the following:	• balance • proportion • highlights • shadowing • texturing effects • decorative aesthetics
Sources of information for jewellery design include one (1) or more of the following:	• specifications • design documentation • illustrations • design drawings • job sheets • work instructions
Decorative aesthetics include one (1) or more of the following surface finishing techniques:	• sandblasting • polishing • electroplating
Manufacturing technologies include one (1) or more of the	• hand-fabrication techniques • computer numerically controlled (CNC) processes • mass finishing activities

This field allows for different work environments and conditions that may affect performance. Essential operating conditions that may be present (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) are included.

following:

**Drawing techniques
include one (1) or more of
the following:**

- cones
- cylinders
- cube
- rectangle
- sphere
- 3-D concept
- axis lines
- conversion of 2-D to 3-D concepts
- depth
- perspective
- scale (1,2 and 3 point)
- use of drawing media, including paper, watercolour, pastel, ink and pencil
- use of drawing tools, including stencils and rubbers

**Preparation of designs
includes one (1) or more
of the following:**

- manual drawing techniques
- 2-D CAD applications
- 3-D CAD applications

Unit Mapping Information

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Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=b7050d37-5fd0-4740-8f7d-3b7a49c10bb2>

Assessment Requirements for MEM19008 Prepare jewellery designs

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Performance Evidence

Evidence required to demonstrate competence in this unit must be relevant to and satisfy the requirements of the elements and performance criteria on at least two (2) occasions and include:

- following work instructions, standard operating procedures (SOPs) and safe work practices
- identifying and interpreting requirements from supplied information to prepare jewellery designs
- identifying and confirming the design requirements with the customer
- developing research and idea to sufficient level in order to determine customer expectations and design outcomes, and evaluating abstract and applied concepts for use in a commercial environment
- undertaking numerical operations and calculations associated with preparing jewellery designs
- applying design principles in concept development
- documenting design concept and selecting technologies suitable for manufacture of item
- producing drawings that accurately reflect design concept and specify production requirements.

Knowledge Evidence

Evidence required to demonstrate the required knowledge for this unit must be relevant to and satisfy the requirements of the elements and performance criteria and include knowledge of:

- safe work practices and procedures and use of personal protective equipment (PPE)
- design resources and where to locate them
- research techniques and available resources
- social trends, cultural, environmental and social context
- relevant industry literature and applicable industry standards or regulations
- existing designs, ethical and competitive considerations
- brainstorming techniques for research and idea development
- design principles
- design documentation
- form drawing development
- geometric forms and drawing techniques
- enhancement techniques

- available manufacturing technologies and their suitability for jewellery manufacture
- types of working drawings and their uses
- interrelation between technical and design drawings
- industry requirements and availability of industry expertise.

Assessment Conditions

- Assessors must:
 - have vocational competency in preparing jewellery designs at least to the level being assessed with relevant industry knowledge and experience
 - satisfy the assessor requirements in the *Standards for Registered Training Organisations 2015* or its replacement and comply with the *National Vocational Education and Training Regulator Act 2011*, its replacement or equivalent legislation covering VET regulation in a non-referring state/territory as the case requires
- Where possible assessment must occur in operational workplace situations. Where this is not possible or where personal safety or environmental damage are limiting factors, assessment must occur in a sufficiently rigorous simulated environment that reflects realistic operational workplace conditions. This must cover all aspects of workplace performance, including environment, task skills, task management skills, contingency management skills and job role environment skills
- Conditions for assessment must include access to all tools, equipment, materials and documentation required, including relevant workplace procedures, product and manufacturing specifications
- Assessment processes and techniques must be appropriate to the language, literacy and numeracy requirements of the work being performed and the needs of the candidate.

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