



Australian Government

**MEM19040 Create and manufacture
jewellery or object design prototypes for the
mass market**

Release: 1

MEM19040 Create and manufacture jewellery or object design prototypes for the mass market

Modification History

Release 1. Supersedes and is equivalent to MEM19040A Create and manufacture jewellery or object design prototypes for the mass market.

Application

This unit of competency defines the skills and knowledge required to develop jewellery or object designs for the mass market. It includes analysis of commercial market opportunities, the development and testing of a prototype and evaluation of product viability as part of the overall design process

This unit applies to designers who use and integrate conceptual, creative and technical skills and knowledge to develop, adapt and implement design solutions.

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

Pre-requisite Unit

MEM13015 Work safely and effectively in manufacturing and engineering

MEM16006 Organise and communicate information

Competency Field

Jewellery

Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Determine job requirements	1.1 Follow standard operating procedures (SOPs) 1.2 Comply with work health and safety (WHS) requirements at all times 1.3 Use personal protective equipment (PPE) in accordance with SOPs 1.4 Identify job requirements from specifications
2. Define and evaluate	2.1 Identify commercial and design objectives of the client or

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mass market opportunities	workplace 2.2 Analyse commercial jewellery or object markets and current and emerging product trends and technologies for impact on design directions
3. Determine suitable jewellery or object manufacturing processes	3.1 Identify in-house manufacturing capabilities available for producing designs and determine the strengths and weaknesses of this form of jewellery or object production 3.2 Identify external manufacturing resources and suppliers available for producing designs and determine their strengths and weaknesses 3.3 Estimate costing impacts of internal and external production suppliers on the overall design costs
4. Develop jewellery or object design concepts	4.1 Use information from market and production analysis to develop commercial product ideas 4.2 Consult with appropriate personnel to analyse and refine ideas and develop a design brief 4.3 Test design brief with appropriate personnel and confirm specifications for product development 4.4 Develop jewellery or object design concepts and solutions in accordance with design brief and determine required manufacturing processes
5. Specify design production requirements	5.1 Document design and production specifications 5.2 Identify target audience, market position and objectives for jewellery or object 5.3 Prepare costing estimates based on specifications 5.4 Develop and present product proposal to test viability and confirm design specifications 5.5 Develop work plan for design production that clearly outlines stages, resources and responsibilities
6. Prepare design prototype	6.1 Plan for the production of jewellery or object design prototype 6.2 Prepare materials and equipment for development based on prototype requirements 6.3 Produce jewellery or object design prototype in accordance with design specifications 6.4 Evaluate production and design results against design brief,

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	costings, marketing objectives and specifications 6.5 Make adjustments to concept, specifications or production processes to improve result 6.6 Finalise design and production specifications based on testing
7. Document and present design solution	7.1 Prepare documentation and drawings of design solution to clearly demonstrate jewellery or object features and specifications 7.2 Present design solution prototype to relevant personnel and seek feedback 7.3 Evaluate design process and outcomes to determine success in meeting design objectives

Foundation Skills

This section describes those language, literacy, numeracy and employment skills that are essential to performance.

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.

Specifications include one or more of the following:	<ul style="list-style-type: none"> • job sheets • sketches • work instructions.
Manufacturing processes include one or more of the following:	<ul style="list-style-type: none"> • centrifugal casting • spinning • engraving • electroplating • laser cutting • die forming.
Appropriate personnel include one or more of the	<ul style="list-style-type: none"> • supervisor • manager

following:	<ul style="list-style-type: none"> • trainer • mentor • team member.
Market research includes one or more of the following:	<ul style="list-style-type: none"> • analysis of target market characteristics • sample testing • discussions with retailers and suppliers • discussions with staff and management • review of media portrayals • review of jewellery or object shows • review of current pricing strategies and price points of products.
Tools and equipment include one or more of the following:	<ul style="list-style-type: none"> • paper • watercolours • pastels • inks • pencils • stencils • rubbers • calculators.
Design documents include one or more of the following:	<ul style="list-style-type: none"> • sketches • illustrations • concept drawings • working drawings • technical data • supporting information • specifications • production plans.
Costings include one or more of the following:	<ul style="list-style-type: none"> • labour • overheads • materials • tooling • equipment • outsourcing.

Unit Mapping Information

Release 1. Supersedes and is equivalent to MEM19040A Create and manufacture jewellery or object design prototypes for the mass market.

Links

Companion Volume implementation guides are found in VETNet -

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