



Australian Government

MEM19041 Experiment with jewellery or object designs

Release: 1

MEM19041 Experiment with jewellery or object designs

Modification History

Release 1. Supersedes and is equivalent to MEM19041A Experiment with jewellery or object designs.

Application

This unit of competency defines the skills and knowledge required to apply technical and design skills to trial experimental designs and techniques. It targets the creative process to inform development of design concepts for custom production or exhibition.

This unit applies to individuals involved in jewellery design or manufacture in a small or large-scale production context. They use and adapt creative and technical skills and knowledge to create 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. Conduct research into jewellery or object design	2.1 Confirm objectives and parameters for design process 2.2 Access and analyse local and international information on

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	jewellery or object design, materials and production trends 2.3 Identify trends in local and international market conditions 2.4 Determine impact of sustainability considerations on jewellery or object design 2.5 Identify opportunities for jewellery or object design 2.6 Determine funding opportunities for design development
3. Apply creative process to develop design concepts	3.1 Examine possible future directions for jewellery or object design from research 3.2 Scope future directions to guide concept development 3.3 Use creative design tools and techniques to develop concepts for jewellery or object designs 3.4 Experiment with materials to further develop design concept 3.5 Experiment with jewellery or object construction techniques to further develop design concept 3.6 Apply knowledge of design elements and principles to design concepts 3.7 Document processes and outcomes of experimentation 3.8 Select design concepts for testing
4. Assess design concepts	4.1 Test design concepts with selected personnel, and integrate that will enhance the design 4.2 Determine production processes and requirements for concepts and assess viability of design concepts 4.3 Develop preliminary costings based on key features of design concepts 4.4 Conduct tests to assess quality and viability of design 4.5 Assess design concepts against project objectives and parameters 4.6 Determine viability of jewellery or object designs in current market and assess expected response of intended audience 4.7 Select concept for development based on assessment
5. Confirm and document design proposal	5.1 Review and rework design concept based on outcomes of testing 5.2 Determine and document design specifications and production plan

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	5.3 Produce proposal for jewellery or object design, including supporting information and documentation

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:	• job sheets • work instructions.
Objectives for design process include one or more of the following:	• exhibition • sale • presentation or display • creative expression • commercial production • custom production • demonstrate ability or for portfolio • develop design skills • innovate new design concepts • marketing or promotion.
Parameters for design process include one or more of the following:	• availability of materials and equipment • budget • timelines • required criteria • design brief.
Market conditions include one or more of the	• fashion trends • price and availability of materials and other resources • disposable income of target market

following:	• purchasing preferences.
Sustainability considerations include one or more of the following:	• impact on environment including generation of waste and by-products resulting from production or end use, and use of precious or rare materials • impact on greater society including health risks to those obtaining materials or providing resources, and community values with regard to design features • impact on economy including contribution to financial wellbeing of community.
Future directions for jewellery or object designs include one or more of the following:	• new uses and applications • new materials • new technologies and equipment • new markets or market conditions • changes to pricing, distribution or other marketing variables.
Elements and principles of design include one or more of the following:	• colour, direction, form and light • line, mass and point • shape and size • space and texture • time, tone and value • balance, contrast and dominance • emphasis and harmony • movement, pattern and proportion • rhythm and unity.
Creative design tools and techniques include one or more of the following:	• colour wheels • collage • materials board • mind mapping • drawings (hand drawings and electronic) • pictures, photographs and images • discussions with others • models, exhibitions and examination of jewellery and objects.
Design tests include one or more of the following:	• market feedback • testing strength of components and whole piece • development and testing of prototypes or models • colour fastness • testing of fixing mechanisms, glues and finishes • protection of precious components • transportability.
Design documentation includes one or more of the following:	• drawings and illustrations • photographs • specifications

	• production plan.
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Unit Mapping Information

Release 1. Supersedes and is equivalent to MEM19041A Experiment with jewellery or object designs.

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 MEM19041 Experiment with jewellery or object 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 and include:

- following work instructions, standard operating procedures (SOPs) and safe work practices
- conducting research into jewellery or object design to determine trends and sustainability considerations
- confirming objectives for design process
- determining parameters and market conditions for the design process
- applying skill and knowledge in materials and construction processes on at least two occasions to experiment with and develop design concepts, including selecting and using design tools and techniques for jewellery or object designs
- testing and assessing the viability of design concepts on at least two occasions
- using and producing design documentation and production plan.

Note: Where a volume and/or frequency is not specified, demonstration must be provided at least once.

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)
- purpose, objectives and parameters for the design process
- market conditions that influence the design process
- research methodology suitable to determine trends, future directions and sustainability considerations in jewellery or object design
- range and uses of jewellery and object production techniques
- calculations and measurements
- reasons for selecting particular materials, construction methods, manufacturing and finishing techniques
- creative design tools and processes
- elements and principles of design
- planning and process stages

- working properties of precious and non-precious metals and other materials
- fine detail manufacturing processes
- various components of jewellery or object items
- design tests
- measuring devices, documentation and recording methods.
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Assessment Conditions

- Assessors must:
 - have vocational competency in experimenting with jewellery or object 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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