



Australian Government

MEM19054 Fabricate platinum jewellery items

Release: 1

MEM19054 Fabricate platinum jewellery items

Modification History

Release 1. Supersedes and is equivalent to MEM19054A Fabricate platinum jewellery items.

Application

This unit of competency defines the skills and knowledge required to design and create platinum jewellery objects applying appropriate jewellery techniques and includes assessing the application of the design brief in the final outcome.

This unit applies to individuals designing jewellery in a small or large-scale production context. They use and adapt both creative and technical skills and knowledge to produce work.

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

Band: A

Unit Weight: 4

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 Determine client requirements for the fabrication of platinum jewellery

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
2. Design and develop a concept from a design brief	2.1 Identify and evaluate relevant research information, references and resources to the design process 2.2 Record concept development through drawings, notations and design options 2.3 Prepare production plans for selected design solution and refine design in response to production considerations 2.4 Determine and obtain resources and equipment to undertake the task
3. Join platinum items using fusing techniques	3.1 Determine appropriate jewellery techniques and equipment through testing and experimentation 3.2 Identify properties, visual and working characteristics, and safety considerations of platinum and determine suitability for application 3.3 Select and apply fusing techniques and processes to commence production of a platinum item
4. Apply soldering techniques	4.1 Determine the soldering sequence that is required for production 4.2 Select and apply the appropriate solders to produce the platinum item
5. Construct and finish platinum items	5.1 Select and apply suitable jewellery techniques in constructing the item 5.2 Apply emery operations and surface finishing techniques which are specific to platinum items 5.3 Identify and address production problems or inconsistencies based on knowledge of process and materials 5.4 Apply appropriate control measures to hazardous substances according to environmental requirements
6. Evaluate object for meeting the design brief	6.1 Test objects for function against the design brief 6.2 Re-work, repair or recycle non-compliant objects in accordance with workplace procedures 6.3 Evaluate and document design processes in accordance with workplace procedures 6.4 Clean up and maintain production environment and equipment in accordance with SOPs

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.

Appropriate personnel include one or more of the following:	• supervisor • manager • trainer • mentor • team member • client.
Jewellery production includes one or more of the following:	• soldering • fusing • crimping • folding • forging • hinge making • fabricating • forming.
Surface finishing techniques include one or more of the following:	• electroplating • emery finishes • planishing • polishing • burnishing.
Environmental requirements include one or more of the following:	• liquid waste • solid waste • emissions (gas, fume, vapour, smoke, fugitive emissions or dust) • excessive noise • excessive energy and water use.

Unit Mapping Information

Release 1. Supersedes and is equivalent to MEM19054A Fabricate platinum jewellery items.

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 MEM19054 Fabricate platinum jewellery items

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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
- determining customer requirements
- researching information on fabricating platinum jewellery items
- generating ideas and concepts and sketching and interpreting drawings
- preparing production plan for selected design solution and confirming with client
- determining, selecting and applying appropriate jewellery production techniques on at least two occasions
- preparing and maintaining jewellery tools and equipment, including hammers, stakes, files and vices
- applying appropriate surface finishing techniques on at least two occasions
- producing tests and experiments for function against design brief,
- determining the requirements for repair or restoration, as applicable
- evaluating and documenting design processes in accordance with procedures.

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)
- appropriate personnel to consult throughout the fabrication process
- concept development techniques
- methods used to determine customer requirements
- purpose, function and maintenance of jewellery equipment
- characteristics and chemical properties of platinum
- emery requirements for platinum
- pre-polish and finishing options suitable for platinum items
- acids used in platinum work
- chemical and visual differences of platinum with other commonly used metals
- contamination risks for platinum

- heating and cooling techniques for platinum
- techniques and manufacturing methods and tools for platinum production
- fusing and soldering techniques for platinum jewellery
- surface finishing aspects specific to platinum jewellery production
- binding and locating techniques
- environmental considerations when producing platinum jewellery.

Assessment Conditions

- Assessors must:
 - have vocational competency in fabricating platinum jewellery items 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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