



Australian Government

Department of Education, Employment and Workplace Relations

CUVACD402A Experiment with moulding and casting techniques

Release: 1

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Modification History

Version	Comments
CUVACD402A	This version first released with <i>CUV11 Visual Arts, Craft and Design Training Package version 1.0</i>

Unit Descriptor

This unit describes the performance outcomes, skills and knowledge required to develop technical skills in moulding and casting through experimentation.

Application of the Unit

People working in industrial and creative contexts use technical casting and moulding skills in their work. In the creative industries this includes ceramic artists, sculptors and prop makers, but the unit could also be relevant to others working with the design and production of any three-dimensional object.

At this level, the individual demonstrates some skill and confidence with the moulding and casting process, most likely at a pre-professional level.

Work is undertaken independently with supervision and guidance available as required.

Licensing/Regulatory Information

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

Pre-Requisites

Not applicable.

Employability Skills Information

This unit contains employability skills.

Elements and Performance Criteria Pre-Content

Element	Performance Criteria
<i>Elements describe the essential outcomes of a unit of competency.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.</i>

Elements and Performance Criteria

<p>1. Develop ideas and designs for moulds and casts</p>	<p>1.1 Apply knowledge of different casting and moulding techniques to inform ideas and designs</p> <p>1.2 Research, adapt and use relevant ideas and approaches from other practitioners with consideration of intellectual property requirements</p> <p>1.3 Allow techniques and ideas to work together to inform each other</p> <p>1.4 Consider the professional potential and other criteria for work when developing ideas</p> <p>1.5 Refine and confirm ideas based on experimentation, research and collaboration with others</p>
<p>2. Extend moulding and casting skills</p>	<p>2.1 Evaluate the potential for new approaches to moulding and casting based on capabilities of techniques already used</p> <p>2.2 Adapt or introduce new materials, tools and equipment to achieve different outcomes</p> <p>2.3 Extend the capabilities of moulding and casting through experimentation</p> <p>2.4 Take account of safety and sustainability considerations in the moulding and casting process</p>
<p>3. Make moulds and casts</p>	<p>3.1 Set up or coordinate resource requirements according to safety or other workplace requirements</p> <p>3.2 Create moulds or casts using techniques and media selected from research and experimentation</p> <p>3.3 Review and refine ideas and approaches based on ongoing experiences with the production of work</p> <p>3.4 Use safe and sustainable work practices throughout the production process</p>
<p>4. Evaluate own work</p>	<p>4.1 Reflect on own work in terms of conceptual development and technical execution</p> <p>4.2 Identify areas for future improvement, especially in terms of own skill development</p> <p>4.3 Discuss completed work with others and respond positively to feedback</p>

Required Skills and Knowledge

This section describes the skills and knowledge required for this unit.

Required skills

- communication skills to discuss creative work from a technical and conceptual perspective
- initiative and enterprise skills to:
 - experiment with different techniques
 - apply critical thinking and analytical skills when developing ideas for moulding and casting projects
- learning skills to:
 - refine and improve a range of techniques
 - evaluate quality of own work and identify ways to enhance own practice
- literacy skills to undertake research about the work of artists
- numeracy skills to:
 - evaluate resource costs
 - calculate material requirements
- planning and organising skills to plan work tasks and resources
- problem-solving skills to identify and resolve technical conceptual issues in casting and moulding work
- technology skills to use the internet as a research tool.

Required knowledge

- ways to adapt, extend and combine the capabilities of different moulding materials and techniques
- physical properties and capabilities of an extended range of materials and tools used in moulding and casting
- characteristics of different materials under different treatments and the potential of these characteristics to achieve different effects
- research methodologies used by artists
- historical and theoretical contexts for moulding and casting work and how they may be used to inform individual practice
- sources of resources needed in a professional practice that includes moulding and casting
- intellectual property issues and legislation to be considered by independent art practitioners
- sustainability considerations for the professional operation of an arts practice
- OHS requirements for the set-up and operation of moulding and casting work space.

Evidence Guide

The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.

Overview of assessment	
Critical aspects for assessment and evidence required to demonstrate competency in this unit	<p>Evidence of the ability to:</p> <ul style="list-style-type: none"> • develop ideas and techniques through a process of research and experimentation • produce multiple finished moulded or cast items that demonstrate a command of techniques • apply knowledge of moulding and casting techniques, equipment and materials.
Context of and specific resources for assessment	<p>Assessment must ensure access to:</p> <ul style="list-style-type: none"> • casting and mould-making materials, tools and equipment • a workspace in which items can be constructed safely.
Method of assessment	<p>A range of assessment methods should be used to assess practical skills and knowledge. The following examples are appropriate for this unit:</p> <ul style="list-style-type: none"> • evaluation of technical execution of work pieces produced by the candidate • direct observation of moulding and casting in progress, including exploration of, and experimentation with, techniques • questioning and discussion about candidate's intentions and the work outcome • review of portfolios of evidence • review of third-party reports from experienced practitioners. <p>Assessment methods should closely reflect workplace demands (e.g. literacy) and the needs of particular groups (e.g. people with disabilities, and people who may have literacy or numeracy difficulties, such as speakers of languages other than English, remote communities and those with interrupted schooling).</p>
Guidance information for assessment	<p>Holistic assessment with other units relevant to the industry sector, workplace and job role is recommended, for example:</p> <ul style="list-style-type: none"> • CUVACER401A Experiment with techniques to produce ceramics.

Range Statement

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.

<p><i>Casting and moulding techniques</i> may include:</p>	<ul style="list-style-type: none"> • blow moulding • carving • draping and slumping • handbuilding • investing • life casting • modelling • pouring • pressing • slipcasting • using release agents • vacuum forming.
<p><i>Ideas</i> may be influenced by:</p>	<ul style="list-style-type: none"> • artistic aspirations • current capability with techniques • historical and theoretical contexts • subject matter or theme for the work, such as: <ul style="list-style-type: none"> • built environment • land and place • natural world • political, cultural and social issues • the body • spiritual concerns.
<p><i>Research</i> may involve:</p>	<ul style="list-style-type: none"> • approaching individuals with relevant expertise • attending lectures and talks • conducting material and technical experiments and tests • searching the internet • seeking out information in books, journals, newspapers and catalogues • visiting exhibitions and museums.
<p><i>Intellectual property requirements</i> may relate to:</p>	<ul style="list-style-type: none"> • copyright • extent to which the work may be used • moral rights • procedures for seeking permission to use the work of others

	<ul style="list-style-type: none"> • protocols for the adaptation of work by others.
Professional potential may relate to:	<ul style="list-style-type: none"> • cost of production • existence of an established market • how to promote or sell the work • market trends • professional development.
Criteria may relate to:	<ul style="list-style-type: none"> • access to materials, tools and equipment for the techniques • ease of application of the techniques • personal affinity with the techniques.
Materials may include:	<ul style="list-style-type: none"> • glazes • other media, such as metal, wire, glass, fabric, timber, board, and other natural or synthetic materials • oxides • range of clays.
Tools and equipment may include:	<ul style="list-style-type: none"> • casting frames • casting table • centrifugal casting machine • cottles • die casting machine • drawing and design tools and materials • carving and modelling tools • computers and design software • rapid prototyping equipment • measuring tools and equipment: <ul style="list-style-type: none"> • accurate scales • electronic balance • measuring instruments for volume and length • mould boards and clamps • protective clothing and equipment • ram press • vacuum former.
Safety and sustainability considerations may include:	<ul style="list-style-type: none"> • federal, state and territory legislation, regulations and standards • personal protection • recycling • safe disposal of waste.

Unit Sector(s)

Visual communication – art, craft and design

Custom Content Section

Not applicable.