



Australian Government

MSTTD5004 Design and produce experimental textiles

Release: 1

MSTTD5004 Design and produce experimental textiles

Modification History

Release 1. Supersedes and is equivalent to LMTTD5004A Design and produce experimental textiles

Application

This unit of competency covers the skills and knowledge required to apply experimental processes to design and produce original textiles in response to a design brief.

The unit of competency applies to developing creative and original design concepts using manipulation techniques to create different effects on fibres, fabrics and other materials.

The design brief may be applied to a particular context within the textile industry. The design and subsequent calculations and pattern development may be created manually or by using computer-aided design (CAD) programs.

Work may be conducted in small to large scale enterprises and may involve individual and team activities.

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

Pre-requisite Unit

Nil

Competency Field

Textile design and development

Unit Sector

Not applicable

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
		1.3	Use appropriate personal protective equipment (PPE) in accordance with SOPs

- 1.4 Identify job requirements from specifications, drawings, job sheets or work instructions
- 2 **Develop original textile product design**
 - 2.1 Identify and analyse requirements or parameters for design and application
 - 2.2 Conduct research to generate and explore design ideas
 - 2.3 Select design concept and communication tools to present design concept to appropriate personnel for feedback
 - 2.4 Respond to feedback and modify design concept as required
- 3 **Prepare for manipulation process**
 - 3.1 Identify materials and manipulation techniques to achieve desired effect
 - 3.2 Identify processes and technical aspects of production to achieve different manipulations
 - 3.3 Complete specification sheet to guide production
 - 3.4 Undertake calculations, as required, to determine textile and material quantities
 - 3.5 Source materials and select and prepare tools and equipment required for production
- 4 **Manipulate materials to produce experimental samples**
 - 4.1 Set up workstation according to specifications for work
 - 4.2 Check textiles and materials to be manipulated against quality standards
 - 4.3 Undertake 2-D and 3-D manipulation techniques to achieve design effects for sample and according to workplace procedures
 - 4.4 Identify material or process faults and determine and address probable cause
- 5 **Evaluate design**
 - 5.1 Assess manipulated textile sample against design

and production processes

- concept and specifications
- 5.2 Analyse and evaluate design to identify opportunities for improvement
 - 5.3 Evaluate manipulation techniques to identify opportunities for improvement
 - 5.4 Explore modifications to design or process using CAD or other design tools and communicate with appropriate personnel
 - 5.5 Finalise modifications and design and document all processes and improvements

Foundation Skills

This section describes those required skills (language, literacy and numeracy) 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.

- Workplace procedures include one or more of the following:**
- requirements prescribed by legislation, awards, agreements and conditions of employment
 - SOPs
 - work instructions
 - PPE
 - oral, written and visual communication
 - quality practices, including responsibility for maintenance of own work quality and contribution to quality improvement of team or section output
 - housekeeping
 - tasks related to environmental protection, waste disposal, pollution control and recycling
 - WHS practices

- Research includes one or more**
- library

of the following:

- internet
- journals
- articles
- visits to galleries and museums
- technical files
- visual diary work

Explore design ideas includes one or more of the following:

- using CAD or other design tools
- developing design concepts
- reviewing against requirements
- considering application, principles of design and elements of design

Experimental textiles include one or more of the following:

- wearable products
- garments
- accessories
- domestic textile products
- giftware
- small and large scale interior/exterior applications
- public art pieces
- commissioned objects
- conceptual pieces for exhibition
- 2-D and 3-D functional and non-functional objects
- commissioned objects

Materials include one or more of the following:

- knitted fabrics, including knit weave and patterned knits, warp knits and weft knits
- woven fabrics, including plain, twill, satin, dobby and jacquard
- non-woven textiles, such as felts, nets, braids, bonded, paper and cardboard
- raw materials
- yarns
- man-made materials
- recycled materials

Appropriate personnel include one or more of the following:

- clients
- supervisor
- trainer or mentor
- designers
- production supervisors
- colleagues and other workers
- curators
- gallery owners
- architects
- interior designers

Tools and equipment include one or more of the following:

- screens
- squeegees
- exposure unit
- printing tables or work tables
- chairs
- dye pots (hot and cold)
- hot plates
- access to wet areas
- shibori poles
- needle and thread
- cutting mats and rules
- knives, secateurs and other cutters
- power tools
- hand tools
- looms and frames
- knitting machines and accessories
- linker
- overlocker
- sewing machine
- iron
- ironing board
- printing press
- mounting and display equipment

Manipulation techniques include one or more of the following:

- crushing
- heat application
- tucking
- pleating
- shrinking
- dyeing
- off loom weaving
- weaving on made frames
- painted and printed warps
- tie dye techniques
- sculptural techniques
- beading
- embroidery
- macramé
- crochet
- folding
- cutting

- reconstruction
- assemblage
- knotting
- looping
- felt making
- basket making
- papermaking
- bookmaking

Analyse and evaluate design includes one or more of the following:

- skill and efficiency
- variation of manipulation effects
- quality
- suitability of materials

Unit Mapping Information

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Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=a203ec5c-de7d-406b-b3e1-8f1a9b76e92e>