



Australian Government

MSTTD5008 Develop textile designs and specifications

Release: 1

MSTTD5008 Develop textile designs and specifications

Modification History

Release 1. Supersedes and is equivalent to LMTTD5008A Develop textile designs and specifications

Application

This unit of competency covers the skills and knowledge required to develop textile designs and specifications for production.

This unit of competency applies to developing a design, and testing and analysing the design specifications for textile materials or products, including fibres, fabrics, yarns and finished products.

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	Prepare to develop textile designs and specifications	2.1	Interpret requirements of design brief and identify purposes and end user of textile product
		2.2	Consider additional factors and determine materials for use in design
		2.3	Confirm design specifications and propose initial design concept from brief
3	Develop textile design	3.1	Use design processes to evaluate options and further develop initial design concept
		3.2	Test design concept with client to refine options
		3.3	Use appropriate communication tools to present selected design for approval
		3.4	Respond to feedback and modify design concept to make improvements, as required
		3.5	Confirm and document approved design
4	Calculate production requirements	4.1	Determine appropriate formulas for calculating yarn requirements
		4.2	Undertake calculations using computer software or manual processes
		4.3	Analyse data, and determine and document yarn requirements
5	Produce and test sample	5.1	Produce textile sample according to design specifications and workplace procedures
		5.2	Examine sample and determine accuracy of calculations
		5.3	Analyse production process to determine improvements
		5.4	Undertake routine testing to assess sample meets quality requirements and industry standards

		5.5	Analyse results of sample testing to determine performance and acceptability for production
		5.6	Document outcomes, consult client and appropriate personnel and record feedback
6	Prepare product specifications	6.1	Analyse sample to develop pattern specifications for finished textile design product
		6.2	Determine production processes including technical aspects and prepare production plans
		6.3	Confirm final product specifications with appropriate personnel and complete all documentation

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

Textile products include one or more of the following:

- fashion items and accessories
- textile furnishings, artwork and fabric
- canvas and PVC goods, such as:
 - covers for machinery, vehicles and equipment
 - different types of tarpaulins and canopies
 - heavy duty or protective work wear
 - straps, belts and fittings
 - tool and equipment bags
- leather goods, such as:
 - welders blankets and jackets
 - riggers belts and frogs
 - tool, equipment and instrument bags, pouches and covers
 - holders and holsters
- washers and gaskets
- protective clothing
- other textile products

Yarns include one or more of the following:

- ring spun
- open-ended spun
- air jet spun
- friction spun

Fibres include one or more of the following:

- polyester
- cotton
- wool
- viscose rayon

Tests include one or more of the following:

- microscopic analysis
- chemical analysis
- evenness testing
- moisture content
- dry-fastness
- tensile-strength
- elongation
- tearing strength
- crease recovery
- dimensional stability

Finished products include one or more of the following:

- socks
- sweaters
- towels
- sheets
- blankets
- carpets
- rope and twine
- mops
- industrial textiles

Unit Mapping Information

Release 1. Supersedes and is equivalent to LMTTD5008A Develop textile designs and specifications

Links

Companion Volume implementation guides are found in VETNet -

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

Assessment Requirements for MSTTD5008 Develop textile designs and specifications

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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:

- reading and following work instructions, standard operating procedures (SOPs), safe work practices
- confirming design specifications and proposing initial design concept on at least two (2) occasions
- using design processes to evaluate options and test design concept with client to refine options
- responding to feedback, modifying design concept to make improvements, as required, and confirm and document approved design
- using relevant computer program or manual process to calculate production requirements
- producing at least two (2) textile samples according to design specifications and workplace procedures, and checking production processes
- undertaking routine testing of samples and analysing results to determine performance, quality standards and acceptability for production
- documenting outcomes, consulting client and appropriate personnel and recording feedback
- developing pattern specifications for finished textile design product, determining production processes and preparing production plans
- confirming final product specifications with appropriate personnel and completing all documentation.

Knowledge Evidence

Evidence must be provided that demonstrates knowledge of:

- safe work practices and procedures and use of personal protective equipment (PPE)
- principles and elements of design
- design process includes:
 - application of elements and principles of design
 - development of inspiration boards and storyboards
 - assessment of fibres and fabrics
 - review of relevant products, such as product sample designs
- characteristics of yarns

- information resources on fibres and fabrics
- elements and principles of testing
- textile design requirements:
 - budget
 - type of industry and industry standards
 - style
 - colour
 - function
 - performance
 - quality
 - dimension
 - timeline
 - design restrictions or conditions
- additional factors affecting design:
 - trends
 - yarn availability
 - production issues
 - resource availability or limitations
 - production costs
- textile materials and products and their properties
- standards for specifications
- product specifications:
 - construction
 - dimensions
 - strength
 - shrinkage
- testing equipment:
 - microscopes
 - weighing scales
 - rulers
 - templates
 - strength testers
 - conditioners
 - dryers
 - abrasion testers
 - pilling testers
- textile performance tests
- workplace procedures
- recording and reporting practices.

Assessment Conditions

- Assessors must:
 - satisfy the assessor competency requirements that are in place at the time of the assessment, as set by the VET regulator
 - have vocational competency in developing textile designs and specifications, at least to the level being assessed, with relevant industry knowledge and experience.
- Assessment should 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 reflecting 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.
- 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.
- Conditions for assessment must include access to all tools, equipment, materials and documentation required, including relevant workplace procedures, product and manufacturing specifications associated with this unit.

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