



Australian Government

MSTTD6002 Apply electronic systems to textile design and production

Release: 1

MSTTD6002 Apply electronic systems to textile design and production

Modification History

Release 1. Supersedes and is equivalent to LMTTD6002A Apply electronic systems to textile design and production

Application

This unit of competency covers the skills and knowledge required to apply electronic systems to textile design and production processes.

The unit of competency applies to the developing intricate textile designs with multiple features using computer-based design programs that enable technically accurate reproduction of the design. Design specifications and patterns will be calculated using appropriate software.

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

Pre-requisite Unit

MSTTD5007 Develop textile designs using computer-based design programs

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 apply electronic systems to design and production	2.1	Interpret design brief to determine design criteria
		2.2	Research trends, themes and influences in textile design and evaluate in line with brief
		2.3	Evaluate complexity of design in terms of intricacy and range of features
		2.4	Set up workstation according to workplace procedures, and create preliminary design concept images using relevant electronic system
		2.5	Develop design concept using computer-aided design (CAD) system
3	Present and confirm design	3.1	Produce design image output that accurately documents intricate design features, scale and dimension and incorporates design elements
		3.2	Produce storyboards and present using CAD processes
		3.3	Present design to client or appropriate personnel for review and make modifications
4	Determine design specifications and machine settings	4.1	Calculate yarn and material requirements for design draft using CAD system
		4.2	Confirm specifications in line with textile design requirements and save
		4.3	Produce patterns
		4.4	Calculate machine settings and calibrate with direct interface to textile production machinery, where appropriate
5	Finalise design	5.1	Confirm design and specifications with client or production personnel and save modifications, where

necessary

- 5.2 Finalise and save production plans and specifications
- 5.3 Save final design and specifications as hard copy and incorporate into digital folio

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 design includes one or more of the following:

- knitting
- weaving
- tapestry

Design concepts include but not limited to one or more of the following:

- scale and dimensional aspects
- design features
- colour palettes
- texture and pattern effects

Electronic systems include one or more of the following:

- Prima Vision
- Corel Draw
- AVL Multi-Colour or Colour-In
- Weavemaker Pro
- Swift Weave
- Design a Weave
- Pro Weave
- Scotweave
- Adobe Illustrator
- Photoshop
- Colour Matters
- Nedgraphics

Design criteria includes but not limited to the following:

- styles
- colours
- trends
- budget
- purpose or function
- target market
- size and scale of product

Specifications include but not limited to one or more of the following:

- warp and weft settings
- numbers of shafts and treadles
- block and mirror selection
- thread instructions
- scale
- yarn specifications
- colour allocation
- colourways
- shaping
- structure

Unit Mapping Information

Release 1. Supersedes and is equivalent to LMTTD6002A Apply electronic systems to textile design and production

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 MSTTD6002 Apply electronic systems to textile design and production

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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 and safe work practices
- applying design process to interpret design brief, researching trends, themes and influences and producing intricate designs to scale using at least two (2) electronic systems
- producing design image output that accurately documents intricate design features, scale and dimension and incorporates design elements
- developing and presenting storyboards to client or appropriate personnel for review, using computer-aided design (CAD) processes
- presenting design to client or appropriate personnel for review and making modifications
- determining design specifications and machine settings
- using CAD to calculate yarn and material requirements, confirm specifications and produce patterns
- calculating machine settings and calibrating with direct interface to textile production machinery where appropriate
- confirming design and specifications with client or production personnel and saving modifications, where necessary
- finalising and saving production plans and specifications
- saving final design and specifications as hard copy and incorporating into digital folio.

Knowledge Evidence

Evidence must be provided that demonstrates knowledge of:

- safe work practices and procedures and use of personal protective equipment (PPE)
- industry and product processes
- product and process development procedures
- specifications:
 - warp and weft settings
 - numbers of shafts and treadles
 - block and mirror selection
 - thread instructions

- scale
- yarn specifications
- colour allocation
- colourways
- shaping
- structure
- principles and elements of design
- CAD system applications and operation
- networked computer operation
- associated computer input and output devices
- patternmaking processes
- textile production processes and practices
- textile production machinery
- operation of interfaced machinery settings
- quality standards and practices
- 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 applying electronic systems to textile design and production, 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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