



Australian Government

MSTTD5005 Design and produce printed textiles

Release: 1

MSTTD5005 Design and produce printed textiles

Modification History

Release 1. Supersedes and is equivalent to LMTTD5005A Design and produce printed textiles

Application

This unit of competency covers the skills and knowledge required to apply complex textile printing techniques and processes when interpreting and responding to a specified design brief.

The unit of competency applies to a design brief that may be applied to a particular context within the textile industry. The design brief includes specifications for the printed product and 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

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|---|-------------------------------------|--|
| 2 | Develop print design | <div>2.1 Determine design brief and analyse requirements and specifications to determine parameters for printed textile</div> <div>2.2 Select dyes or pigments, colours and fabric substrates to meet design brief</div> <div>2.3 Conduct research to generate and explore design ideas</div> <div>2.4 Select design concept and communication tools to present design concept to appropriate personnel for feedback</div> <div>2.5 Respond to feedback and modify design concept, as required</div> |
| 3 | Prepare for print production | <div>3.1 Source and prepare materials and equipment required for production</div> <div>3.2 Identify technical aspects of production</div> <div>3.3 Complete specification sheet to guide production</div> <div>3.4 Select artwork or develop for screen printing applications on textiles</div> <div>3.5 Select and prepare fabrics, colour separations and stencils</div> |
| 4 | Produce printed product | <div>4.1 Create sample to test accuracy of colour separations, repeat pattern colour, placement and registration</div> <div>4.2 Analyse and evaluate sample and modify technical or design elements, as required, to meet design specifications</div> <div>4.3 Use tools and equipment to print final product according to workplace procedures</div> <div>4.4 Monitor printing to identify and resolve problems or faults</div> <div>4.5 Document processes and effects to ensure exact outcome</div> |

can be replicated

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

Appropriate personnel include one or more of the following:

- clients
- supervisor
- trainer or mentor
- designers
- production supervisors
- colleagues and other workers

Materials for printing include one or more of the following:

- appropriate textile substrates (cotton, wool, silk and hemp)
- appropriate stencil materials (hand cut, photographic, acetate and digital)
- dyes and pigments

Equipment for printing includes one or more of the following:

- screens
- squeegees
- exposure tables
- printing tables

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

- skill and efficiency
- material requirements calculations
- finishing procedures
- design resolution
- quality
- suitability of materials

Products for printing include one or more of the following:

- garments
- furnishing fabrics
- domestic textile products
- accessories
- giftware
- fabrics

Unit Mapping Information

Release 1. Supersedes and is equivalent to LMTTD5005A Design and produce printed textiles

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 MSTTD5005 Design and produce printed textiles

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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
- analysing design requirements or parameters
- creating and producing at least two (2) print designs
- applying screen printing techniques
- testing and evaluating design in sample production
- using tools and equipment associated with printing fabric substrates
- resolving design and production problems
- creating sample to test accuracy of colour separations, repeat pattern colour, placement and registration
- analysing and evaluating sample and modifying technical or design elements as required to meet design specifications
- using tools and equipment to print at least two (2) printed textiles according to workplace procedures
- monitoring printing to identify and resolve problems or faults
- documenting processes and effects to ensure exact outcome can be replicated.

Knowledge Evidence

Evidence must be provided that demonstrates knowledge of:

- safe work practices and procedures and use of personal protective equipment (PPE)
- research and sources of design inspiration:
 - library
 - internet
 - journals
 - articles
 - visits to galleries and museums
 - technical files
 - visual diary work
- uses and characteristics of fabrics, fibres and yarns and fabric substrates
- principles and elements of design

- exploration of design ideas, such as:
 - using computer-aided design (CAD) or other design tools
 - developing design concepts
 - reviewing against requirements
 - considering application, principles of design and elements of design
- effect of printing on textiles and materials
- technical aspects of printing on textiles:
 - specific screen and mesh selection
 - stencil types
 - pre-production processes
 - screen reclamation
 - appropriate dyes or pigments for substrates
 - appropriate finishing techniques (steaming, heat setting, washing and sewing)
 - appropriate quality processes (wash tests, light fastness and rub testing)
 - screen faults (pin holes and poor image)
- tools and equipment associated with printing fabrics and other materials
- textile printing techniques
- requirements or parameters:
 - purpose
 - design specifications, such as colour, yarn type, size and patterns
 - quality standards
 - budget
 - timeline
 - pattern or images
 - reproducibility
 - uniqueness
- specifications:
 - budget
 - type of product
 - style requirements, colours and printing technique
 - application
 - timeline
 - design restrictions or conditions
 - yarn type
 - fabric substrate
- communication tools:
 - inspiration board
 - storyboard
 - design concepts
 - research information

- multimedia tools
- yarn samples
- colour chips
- information resources on fibres, fabrics, materials and printing
- effects of printing on design
- quality 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 designing and producing printed textiles, 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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