



Australian Government

Department of Education, Employment and Workplace Relations

LMTTD5005A Design and Produce printed textiles

Revision Number: 1

LMTTD5005A Design and Produce printed textiles

Modification History

Not applicable.

Unit Descriptor

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

Application of the Unit

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The unit requires the application of the design process and focuses on the use of printing techniques to create a printed textile product which meets a specified brief. The design brief is determined by a trainer or supervisor and may be applied to a particular context within the textile industry. The design brief includes specifications for the printed product. The design 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-related activities.

The application of this unit is according to OHS practices of the enterprise and workplace practices, which may include:

- requirements prescribed by legislation, awards agreements and conditions of employment
- standard operating procedures
- work instructions
- 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

This unit requires the application of skills associated with communication and initiative and enterprise associated with developing design concepts, patterns and specifications and presenting to others. Initiative and enterprise and problem solving will be used to develop the product design. Planning and organising are required for the safe and effective use of textile printing technology and operations. This unit also requires an ability to check the quality of outcomes and identify and address problems relating to textile printing.

Licensing/Regulatory Information

Not applicable.

Pre-Requisites

Prerequisites

Employability Skills Information

Employability Skills This unit contains employability skills.

Elements and Performance Criteria Pre-Content

Not applicable.

Elements and Performance Criteria

ELEMENTS

PERFORMANCE CRITERIA

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| 1 Develop print design | 1.1 Design brief is interpreted and requirements and specifications are analysed to determine parameters for printed textile.
1.2 Dyes or pigments, colours and fabric substrates are selected to meet design brief.
1.3 Print design ideas are explored using computer aided or other design tools and design concepts are developed and reviewed against requirements and with consideration of application, principles of design and elements of design .
1.4 Design concept is selected and communication tools are used to present design concept to appropriate personnel for feedback.
1.5 Feedback is received and considered in line with design brief.
1.6 Design concept is modified and improved where possible. |
| 2 Prepare for production | 2.1 Materials and equipment required for production are sourced and prepared.
2.2 Technical aspects of production are identified.
2.3 Specification sheet is completed to guide production.
2.4 Artwork is selected or developed for screen printing applications on textiles.
2.5 Fabrics, colour separations and stencils are selected and prepared. |
| 3 Produce printed samples | 3.1 Sample is created to test accuracy of colour separations, repeat pattern colour, placement and registration.
3.2 Technical or design elements are modified as required.
3.5 Tools and equipment are used effectively and safely to achieve desired result.
3.6 Processes and effects are documented to ensure exact outcome can be replicated. |
| 4. Produce printed product | 4.1 Design is printed according to design specifications and OHS practices .
4.2 Printing is monitored to identify problems or faults. |
| 5 Evaluate and analyse design and production processes | 5.1 Finished item is assessed against design specifications and design brief.
5.2 Design is analysed and evaluated to identify opportunities for improvement.
5.3 Production process is evaluated to identify opportunities for improvement.
5.4 Processes and improvements are documented. |

Required Skills and Knowledge

This describes the essential skills and knowledge and their level, required for this unit.

Demonstrates knowledge of:

- sources of design inspiration
- characteristics of fabrics, fibres and yarns and fabric substrates
- principles and elements of design
- OHS practices, including hazard identification and control measures
- quality practices
- workplace practices
- recording and reporting practices

Demonstrates skills to:

- resolve design and production problems
- use tools and equipment associated with printing fabric substrates
- read, interpret and follow information on work specifications, standard operating procedures and work instructions, and other reference material
- maintain accurate records
- communicate within the workplace
- sequence operations
- meet specifications
- clarify and check task-related information
- carry out work according to OHS practices

Evidence Guide

The Evidence Guide provides advice on assessment and must be read in conjunction with the Performance Criteria, Required Skills and Knowledge, the Range Statement and the Assessment Guidelines for the Training Package.

Critical aspects of evidence to be considered	Demonstrates skills and knowledge to: • create and produce own print designs • apply screen printing techniques • effectively and safely use tools and equipment • test and evaluate design in sample production • document processes and specifications
Consistency in performance	Consistently applies skills and knowledge when: • organising work • completing tasks • identifying improvements • using workplace practices • using OHS practices • recording and reporting accidents and incidents • assessing operational readiness of equipment used and work processes • recognising and adapting to cultural differences in the workplace, including modes of behaviour and interactions • completing work systematically with attention to detail without damage to goods and equipment
Resource implications	Access is required to real or appropriately simulated situations, including work areas, materials and equipment, and to information on workplace practices and OHS practices.
Context for assessment	Assessment may occur on the job or in an appropriately simulated environment.
Interdependent assessment	This unit may be assessed independently or in combination with other relevant units.

Range Statement

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. Add any 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.

Legislative/regulatory requirements	All work must comply with relevant Federal and State or Territory legislative or regulatory requirements.
Communication tools may include	• inspiration board • storyboard • design concepts • research information • multimedia tools • yarn samples • colour chips
Appropriate personnel may include	• clients • supervisor • trainer or mentor • designers • production supervisors • colleagues and other workers
Materials may include	• appropriate textile substrates cotton wool, silk, hemp • appropriate stencil materials - hand cut, photographic, acetate, digital • dyes, pigments
Equipment may include	• screens • squeegees • exposure tables • printing tables
Technical aspects may include	• 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 sewing • appropriate quality processes - wash tests, light fastness, rub testing • screen faults - pin holes, poor image

Specifications may include	• budget • type of product • style requirements, colours, printing technique. • application • timeline • design restrictions or conditions • yarn type • fabric substrate
Analysis and evaluation may include consideration of	• skill and efficiency • material requirements calculations • finishing procedures • design resolution • quality • suitability of materials
Products may include	• garments • furnishing fabrics • domestic textile products • accessories • giftware • fabrics
OHS practices	OHS practices must include hazard identification and control, risk assessment and implementation of risk reduction measures specific to the tasks described by this unit and may include: • manual handling techniques • standard operating procedures • personal protective equipment • safe materials handling • taking of rest breaks • ergonomic arrangement of workplaces • following marked walkways • safe storage of equipment • housekeeping • reporting accidents and incidents • other OHS practices relevant to the job and enterprise

Unit Sector(s)

Sector Textile Design and Development