



Australian Government

MSTTD6001 Research commercial development of textiles

Release: 1

MSTTD6001 Research commercial development of textiles

Modification History

Release 1. Supersedes and is equivalent to LMTTD6001A Research commercial development of textiles

Application

This unit of competency covers the skills and knowledge required to research and evaluate textiles for fashion, furnishings, accessories and exhibition, and make recommendations to guide the commercial development of textile products.

The unit of competency applies to activities associated with researching and evaluating quality, processing, finish, use, properties and performance of materials, partially finished and finished textile products. Findings should be used to make recommendations to guide commercial development of materials and products.

Work is performed in line with a broad plan or strategy. 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 research commercial development of textiles	2.1	Establish objectives for conducting research in line with business goals
		2.2	Establish criteria and parameters for research and develop research plan
		2.3	Conduct research into textiles
3	Research textile products	3.1	Analyse products that incorporate textiles and their current uses in the marketplace
		3.2	Research performance characteristics of textile products and analyse to determine quality
		3.3	Use a range of routine and non-routine tests to gather data on product quality
		3.4	Identify factors influencing quality of textile products
		3.5	Identify and examine product faults and determine causes
		3.6	Research global and domestic implications for use of textile products
4	Evaluate findings and make recommendations	4.1	Analyse research findings and prioritise according to their significance to research objectives and criteria
		4.2	Review methodology to identify any potential influences on findings
		4.3	Analyse findings to identify products with most potential for commercial development and further review
		4.4	Analyse features and benefits, and disadvantages or risks, of selected findings
		4.5	Prepare a report, including visual and graphical illustration to summarise aspects of research

4.6 Make recommendations and document how findings apply to commercial gain

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 of the following:

- textile properties, qualities, aesthetic and performance characteristics
- primary uses of textiles
- new and emerging textiles and textile processing techniques
- global and domestic trends in using textiles
- routine and non-routine tests to gather data on textiles

Textiles include one or more of the following:

- natural fibres, such as cotton, wool, silk and linen
- synthetic fibres, such as:
 - polyamide and polyester

- acrylic
- lycra
- rayon
- acetate
- natural and synthetic single-yarn fabrics and blends, including:
 - knitted fabrics, such as weft knits and warp knits
 - woven fabrics, such as plain, twill, satin, dobby, jacquard and pile
 - non-woven fabrics, such as felts, nets, braids, bonded and composite
 - emerging smart fabrics
 - raw materials
 - new and emerging textiles
 - yarn

Routine tests include one or more of the following:

- visual checking
- colour matching
- weighing and height
- weight and thickness measuring
- moisture measuring
- measuring rubbing fastness
- stretch
- wear
- cracking
- colour
- gloss
- softness
- handle
- texture
- light and colour fastness
- heat fastness
- tensile characteristics
- flexibility

Non-routine tests include the following:

- tests performed in a laboratory environment to laboratory level standards

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>

Assessment Requirements for MSTTD6001 Research commercial development of 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
- planning and conducting research into textiles and textile products in line with business goals
- establishing criteria and parameters for research and developing research plan
- conducting research into textiles, analysing products that incorporate textiles, and researching performance characteristics of at least one (1) sample range of textile products to determine quality
- investigating global and domestic implications for use of textile products
- using a range of routine and non-routine tests to gather data on product quality to identify factors influencing quality of textile products
- analysing findings to identify products with most potential for commercial development and analysing features, benefits and disadvantages or risks, of selected findings
- preparing a 2000-3000 word report in appropriate format, including visual and graphical illustrations and recommendations indicating how findings apply to commercial opportunities and gain.

Knowledge Evidence

Evidence must be provided that demonstrates knowledge of:

- safe work practices and procedures and use of personal protective equipment (PPE)
- sources of information
- qualities and properties of textiles:
 - firmness
 - softness
 - hand
 - weight
 - grain or gauge
 - drape
 - porosity
 - covering power

- count
- light penetration
- commercial relevance or objectives for research
- research methodology
- research criteria:
 - scope of research
 - required documentation
 - required research verification
 - research methodologies
 - timing
 - commercial constraints or requirements
- relevant legislation, codes of practice, copyright obligations, policies and procedures
- textile and product testing procedures
- performance characteristics:
 - stretch
 - abrasion
 - wearability
 - absorbency
 - durability
 - elasticity
 - heat sensitivity
 - shrink resistance
 - ease of care
 - drape quality
 - colour fastness
 - strength
- report writing
- report structure:
 - title page
 - table of contents
 - summary
 - introduction
 - theories and hypotheses
 - body (findings and conclusions)
 - methodology
 - test results
 - recommendations
 - references
 - appendixes
 - glossary

- report content:
 - text
 - graphs
 - charts
 - tables
 - diagrams
- quality practices
- workplace procedures
- recording and reporting practices.
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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 researching commercial development of 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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