



Australian Government

MSTGN5018 Research and analyse textile materials

Release: 1

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Modification History

Release 1. Merges MSTFD6009 and MSTTD6001. Unit Code, Title and Application changed. Elements and Performance Criteria simplified and restructured with Element 1 removed. Foundation Skills field populated. Range of Conditions removed. Assessment Requirements clarified with generic foundation skills statements moved to appropriate section and duplication with Performance Criteria removed. Supersedes and is not equivalent to MSTFD6009 Analyse fashion industry textiles to guide commercial development.

Application

This unit describes the skills and knowledge required to research and analyse textile materials and to make recommendations about their use in a business context. It includes the analysis of different aspects of materials such as fibre properties, quality, construction processes, finish and end use with a focus on establishing the ethical, sustainability, design and production implications of findings for business activities.

This unit applies to individuals working independently or within broad guidelines.

No licensing or certification requirements exist at the time of publication. Relevant legislation, industry standards and codes of practice within Australia must be applied.

Pre-requisite Unit

Nil

Competency Field

Generic

Elements and Performance Criteria

Elements	Performance Criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Establish research scope	1.1 Establish research objectives that reflect business requirements 1.2 Establish criteria for materials to be researched and proposed research scope 1.3 Develop research plan that identifies materials to be researched
2. Complete research	2.1 Source and analyse information about textiles and determine fibre properties, qualities, aesthetic and performance characteristics

Elements	Performance Criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
	2.2 Establish the sustainability of materials through investigation of complete lifecycle 2.3 Identify current and emerging materials construction processes 2.4 Investigate new and emerging textiles and textile processing techniques 2.5 Research both global and domestic trends in materials and their business implications 2.6 Identify routine and non-routine tests to gather data on textile materials and products 2.7 Determine care and end-use considerations for materials 2.8 Establish textile factors that influence quality of finished products
3. Analyse research findings	3.1 Analyse research findings against research objectives and criteria, and prioritise according to significance for business activities 3.2 Take into account sustainability, intellectual property and ethical practice considerations to select findings with most potential 3.3 Analyse features and benefits, and disadvantages or risks, of selected findings 3.4 Prepare research report that summarises key findings and makes recommendations to meet business requirements

Foundation Skills

This section describes those language, literacy, numeracy and employment skills that are essential to performance but not explicit in the performance criteria.

- Reading skills to source and interpret diverse and potentially complex information
- Writing skills to develop cohesive report and substantiated recommendations.

Other foundation skills essential to performance are explicit in the performance criteria of this unit.

Unit Mapping Information

No equivalent unit.

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 MSTGN5018 Research and analyse textile materials

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Performance Evidence

There must be evidence the candidate has completed the tasks outlined in the elements and performance criteria of this unit, and demonstrated the ability to:

- develop research objectives and a research plan based on business requirements
- source and analyse information about all of the following:
 - origins and characteristics of five different fibres, to include natural, semi-synthetic and synthetic
 - 15 different fabrics (including at least two 'smart' fabrics) in relation to their individual construction methods, qualities and performance characteristics
- establish and document the ethical, sustainability, design and production implications of findings about fibres and fabrics analysed above
- prepare a report that summarises key findings and make recommendations to meet business requirements.
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Knowledge Evidence

There must be evidence the candidate has knowledge of:

- types of business requirements that inform objectives for research
- role and importance of detailed materials knowledge as the basis for sustainable textile product design and production
- sources of information on textile materials and textile products and how to establish source reliability
- local and global trends in the use of textile materials
- industry frameworks that support sustainable sourcing and use of textile materials
- different types of fibres, their sources, characteristics, care and end use, including:
 - natural fibres (both animal and plant)
 - semi-synthetic fibres
 - synthetic fibres
- construction processes and methods for different types of fabrics, including:

- knitted fabrics
- woven fabrics
- non-woven fabrics
- emerging 'smart' fabrics
- underlying fabrics and their purpose and application
- visual, tactile and textural and performance qualities of textiles and their suitability for different applications
- types of textiles finishes and their applications, both aesthetic and performance-based
- different types of fabric faults and their effects on product quality
- types of textile testing purposes and methods conducted in laboratory and/or workplace
- how to structure and format a research report and link research findings to business requirements.
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Assessment Conditions

Skills must have been demonstrated in the workplace or in a simulated environment that reflects workplace conditions and contingencies. The following conditions must be met for this unit:

- use of suitable facilities, equipment and resources, including:
 - information technology for research
 - textile materials.

Assessors must satisfy the NVR/AQTF mandatory competency requirements for assessors.

Links

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