LMT50407 Diploma of Textile Technology and Production Management

Revision Number: 1

LMT50407 Diploma of Textile Technology and Production Management

Modification History

Not applicable.

Description

Job roles/employment outcomes

The Diploma of Textile Technology and Product Management covers occupations such as those involved in textile research and development, textiles product development, computer aided design and manufacturing technologies, textile product design, colour coordination, logistics management, production management, quality assurance design and supervision or management.

Application

This qualification is typically used to develop skill and knowledge in the application of specialised technical and management skills within production enterprises.

Pathways into the qualification

Direct entry into this qualification requires completion of a total of thirty-five (35) units of competency according to the rules described below.

Credit may be granted towards this qualification by those who have completed LMT40107 Certificate IV in Textile Technology and Production, LMT30107 Certificate III in Textile Production; LMT30407 Certificate III in Textile Fabrication, LMT31807 Certificate III in Technical Textiles and Non-wovens or achieved equivalent industry experience.

Pathways from the qualification

Further training pathways from this qualification include MSA61108 Advanced Diploma of Competitive Manufacturing or other relevant manufacturing qualifications.

Licensing considerations

There are no specific licences that relate to this qualification. However, some units in this qualification may have licensing or regulatory requirements in some environments. Local regulations should be checked for details.

Pathways Information

Not applicable.

Licensing/Regulatory Information

Not applicable.

Entry Requirements

Not applicable.

Employability Skills Summary

EMPLOYABILITY SKILLS QUALIFICATION SUMMARY	
Employability Skills Summary - **Diploma of Textile Technology and Production Management** The following table contains a summary of the Employability Skills as identified by the textile technology and production industries for this qualification. This table should be interpreted in conjunction with the detailed requirements of each unit of competency packaged in this qualification. The outcomes described here are broad industry requirements that reflect skill requirements for this level.	
Employability Skill	**Industry**/**enterprise requirements for this qualification include**:
Communication	- communicate verbally with internal and external clients - complete workplace documentation and records - use communication technologies efficiently - demonstrate effective and appropriate communication and interpersonal skills when dealing with people from non English-speaking backgrounds - demonstrate effective and appropriate communication and interpersonal skills when dealing with customers - calculate costs and material quantities - analyse technical information - communicate development ideas and present concepts for review - develop product specifications and patterns - interpret and apply textile terminology, symbols and calculations
Teamwork	- work cooperatively with people of different ages, gender, race or religion - liaise and provide support to other team members - coordinate and problem the work of others in the team - seek and integrate feedback form others - participate in sustainability improvements
Problem-solving	- investigate and rectify problem causes - identify, rectify and report potential difficulties associated with manufacture of products or provision of services - identify and report environmental features, regulations, insurance requirements, legal requirements and other factors which may affect the product or service to be provided

EMPLOYABILITY SKILLS QUALIFICATION SUMMARY	
	• perform calculations to determine production requirements • apply knowledge of material properties to production planning and problem solving • analyse textile influences to determine design requirements • monitor production and address quality issues • conduct routine and non routine tests to gather information on production processes and materials • identify and act on environmental hazards
Initiative and enterprise	• report problems outside area of responsibility and make contributions to their solution • research and develop textile products • seek feedback on products, processes and procedures • critically analyse and prioritise information • manage quality assurance procedures • record information on the quality and other indicators of production performance • determine types and quantities of materials required for product manufacture • apply technical skills to the development of products • identify opportunities for improvement to environmental performance
Planning and organising	• identify hazards and implement appropriate hazard control measures • implement time management skills to meet production targets • identify and rectify stock shortages in advance • sequence work to maximise safety and productivity • plan for minimising waste in production • develop plans for the production of textile products • plan for implementation of tests on textile materials and processes
Self-management	• implement relevant acts and regulations • keep the work area clean and tidy at all times • monitor work activities and address any quality issues • understand impact of own work activities on production outcomes • manage own time to meet production targets • monitor use of resources • develop and implement workplace procedures and

EMPLOYABILITY SKILLS QUALIFICATION SUMMARY	
	instructions
	• apply quality standards to own work
	• take responsibility for production processes
Learning	• implement learning activities to enable quality production of textile products
	• assess competencies in meeting job requirements
	• be supportive, assertive and use interpersonal skills
	• listen to and help others
	• identify own training needs and seek skill development if required
	• practice skills to improve outcomes
	• learn about sustainability developments relating to work practice
	• compare work with quality standards and specifications, assess own achievement and identify areas for improvement
Technology	• manage the efficient operation of machines and equipment used to produce textile products
	• use information technology
	• work with technology safely and according to workplace standards
	• provide problem solving to machine and equipment operations

Packaging Rules

Packaging Rules

To be awarded the Diploma of Textile Technology and Production Management, competency must be achieved in thirty-five (35) units of competency.

- Fourteen (14) core units of competency
- Twenty-one (21) elective units of competency as specified below.

If Certificate IV has been achieved, an additional 10 units are required to gain the Diploma qualification.   All core units listed under the direct entry pathway must also be achieved by those entering via Certificate IV. Any Diploma core units not achieved at Certificate IV must be completed as part of the additional ten (10) units required for the Diploma. Units that have been credited towards lower level qualifications must not be selected in the additional ten (10) unit requirement.

Note: Where prerequisite units apply, these have been noted, and must be considered in the total number of units.

CORE UNITS

Complete all fourteen (14) units from this list

Unit code	Unit title
LMTGN2003B	Work in the Textiles, Clothing and Footwear industry
LMTGN3002B	Organise and plan own work to achieve planned outcomes
LMTGN4010A	Implement and monitor OH&S in the workplace
LMTGN4011A	Coordinate quality system and procedures
LMTGN4013A	Manage technical processes
LMTGN5002B	Coordinate quality assurance for textile, clothing and footwear products and services
LMTGN5010A	Plan and organise non-routine testing
LMTGN5011A	Develop and test textile clothing and footwear products or processes
LMTTX2001B	Identify fibres, yarns and textile materials and their uses in textile production
LMTTX3001B	Identify quality and types of textile fibres, yarns and fabrics
LMTTX4001A	Interpret and apply textile calculations and specifications
LMTTX4002A	Understand and apply textile science
LMTTX4003A	Perform routine textile testing and analyse results
MSAENV272B	Participate in environmentally sustainable work practices

ELECTIVE UNITS

Select twenty-one (21) units as specified below.

- A minimum of four (4) units must be selected from Group A
- A maximum of four (4) units may be selected from Group C
- A maximum of six (6) units may be selected from Group D
- A maximum of six (6) units may be selected from Group E
- The remainder must be selected from Groups A and B.

GROUP A

Unit code	Unit title	Prerequisites
LMTGN5001B	Participate in production planning processes	
LMTGN5003B	Work with international textile, clothing and footwear supply chains	
LMTGN5004A	Manage installation and commissioning of equipment and systems	
LMTGN5007A	Prepare procedures and specifications for Textiles, clothing and footwear operations	
LMTGN5008A	Identify opportunities in the textile, clothing and footwear market	LMTGN4019A
LMTTX5001A	Determine textile finishing processes	LMTTX4001A LMTTX4002A

GROUP B

Unit code	Unit title	Prerequisites
LMTGN4001A	Coordinate or set up machine/s for product change	
LMTGN4002A	Participate in product engineering	
LMTGN4003A	Install and commission	

Unit code	Unit title	Prerequisites
	process and machine control programs	
LMTGN4005A	Plan and implement production within a work area	
LMTGN4006A	Evaluate equipment and systems	
LMTGN4008A	Analyse product and determine machine settings	
LMTGN4009A	Set and modify machines for product change	
LMTGN4012A	Fabricate or machine tooling	
LMTGN4014A	Design production tooling	
LMTGN4016A	Contribute to the development of products or processes	
LMTTX4004A	Select dyes and develop dye specification and recipe for production	
LMTTX4005A	Undertake textile colouration and finishing	
MEM12023A	Perform engineering measurements	
MEM12024A	Perform computations	
MEM13003B	Work safely with industrial chemicals and materials	
MEM14004A	Plan to undertake a routine task	
MEM14005A	Plan a complete activity	

Unit code	Unit title	Prerequisites
MEM17003A	Assist in the provision of on the job training	
PMASUP420B	Minimise environmental impact of process	

GROUP C

Unit code	Unit title	Prerequisites
LMTCL2001B	Use a sewing machine	
LMTGN2009B	Operate computing technology in a Textile, Clothing and Footwear workplace	
LMTGN3001B	Control production in a section of a Textile, Clothing and Footwear enterprise	
LMTGN3005B	Plan tasks to assist production operations	
LMTGN3006B	Take responsibility for visitors and new employees	
LMTGN3009B	Supervise operations in a textiles, clothing and footwear enterprise	
LMTLG2006A	Identify materials used in leather goods production	
LMTLG3001A	Make a prototype	
LMTTF2001A	Despatch products	
LMTTF2003A	Package and handle products for despatch	

Unit code	Unit title	Prerequisites
LMTTF2004A	Add reinforcements and attachments	
LMTTF2005A	Translate information into measurements or diagrams	
LMTTF2006A	Measure and scale geometric shapes	LMTT2005A
LMTTF2007A	Produce patterns for 2D products	
LMTTF2008A	Use adhesives	
LMTTF2009A	Identify and select canvas and sail materials	
LMTTF2010A	Lay out and mark out canvas or sail materials	
LMTTF2011A	Cut and shape canvas or sail materials	
LMTTF2012A	Stitch by hand	
LMTTF2013A	Waterproof canvas products	
LMTTF2014A	Weld plastic materials	
LMTTF2016A	Install products on and off-site	
LMTTF2017A	Cut, bend and shape metal	
LMTTF2018A	Use canvas and sail production tools	
LMTTF2019A	Inspect canvas or sail product	

Unit code	Unit title	Prerequisites
LMTTF3001A	Identify customer requirements (on site)	
LMTTF3002A	Gain customer acceptance of service proposal	
LMTTF3003A	Produce patterns for 3D products	LMTTF2007A
LMTTF3004A	Perform advanced welding of plastic materials	LMTTF2014A
LMTTF3005A	Apply lofting skills to sail making	
LMTTF3006A	Cut and join sail panels	
LMTTN2001B	Set up and operate a dry laid web forming machine	
LMTTN2002B	Set up and operate a spun bond web forming machine	
LMTTN2003B	Use basic recognition techniques to identify technical and non-woven textiles	
LMTTN2004B	Undertake web bonding processes	
LMTTN2005B	Undertake web conversion and finishing	
LMTTN2006B	Identify purpose and performance outcomes of technical textile product	LMTTN2003B
LMTTN2007B	Conduct technical textile mechanical	

Unit code	Unit title	Prerequisites
	finishing processes	
LMTTN2008B	Conduct heat setting on technical textiles	
LMTTN2009B	Apply surface coating to technical textiles	
LMTTN2010B	Apply laminations and fusible interlinings to technical textiles	
LMTTN2011B	Undertake fibre blending and feeding for nonwoven technical production processes	
LMTTX2002B	Prepare yarn for textile manufacturing	
LMTTX2003B	Perform spinning operations	
LMTTX2004B	Perform tufting operations	
LMTTX2005B	Perform creeling operations	
LMTTX2006B	Operate a weaving loom	
LMTTX2007B	Perform knitting operations	
LMTTX2008B	Apply finishing processes to textile production	
LMTTX2009B	Weigh and check textile materials and products	
LMTTX2010B	Load and operate	

Unit code	Unit title	Prerequisites
	dyeing equipment	
LMTTX2011B	Repair textile product	
LMTTX2012B	Perform industrial sewing on textile products	
LMTTX2013B	Conduct packaging or folding for textile production	
LMTTX2014B	Use specialised machinery to assist textile production	
LMTTX2015B	Handle and prepare chemicals, dyes and other substances used in textile production	
LMTTX2016B	Perform knotting for weaving operations	
LMTTX2017B	Access and use information resources for textile production operations	
LMTTX2018B	Restart machine after stoppage	
LMTTX2019B	Undertake carding operations	
LMTTX3002B	Contribute to textile production process improvements	LMTGN2002B
LMTTX3004B	Set up textile production machines for product change	
LMTTX3005B	Organise and interpret tests	
LMTTX3006B	Ensure efficient	

Unit code	Unit title	Prerequisites
	operation of textile machines	
LMTTX3007B	Prepare dyes for textile production	
LMTTX3008B	Select raw materials	
LMTTX3009B	Operate in a complex textile production environment	
LMTTX3010B	Monitor textile production processes	
LMTTX3011A	Set up, adjust and maintain circular knitting machines	
LMTTX3012A	Set up, adjust and maintain flat knitting machines	
LMTTX3013A	Set up and adjust spinning machines	
LMTTX3014A	Set up, adjust and maintain carding machines	LMTTX3001B
LMTTX3015A	Set up, adjust and maintain tufting machines	LMTTX4002A
LMTTX3016A	Set up, adjust and maintain domestic sewing machines	
LMTTX3017A	Set up, adjust and maintain industrial sewing machines	
LMTTX3018A	Undertake electronic fault finding on textile machinery	
LMTTX3019A	Identify and correct	

Unit code	Unit title	Prerequisites
	mechanical faults in loom and other weaving equipment	
LMTTX3020A	Identify and correct weaving process faults	
LMTTX3021A	Apply knowledge of weaving processes to production requirements	
LMTTX3022A	Set up and operate weaving loom for production	

GROUP D

Unit code	Unit title	Prerequisites
MSACMC210A	Manage the impact of change on own work	
MSACMC410A	Lead change in a manufacturing environment	
MSACMS200A	Apply competitive manufacturing practices	
MSACMS201A	Sustain process improvements	
MSACMS400A	Implement a competitive manufacturing system	
MSACMS401A	Ensure process improvements are sustained	

Unit code	Unit title	Prerequisites
MSACMT220A	Apply quick changeover procedures	
MSACMT221A	Apply Just in Time (JIT) procedures	
MSACMT230A	Apply cost factors to work practices	
MSACMT231A	Interpret product costs in terms of customer requirements	
MSACMT240A	Apply 5S procedures in a manufacturing environment	
MSACMT250A	Monitor process capability	
MSACMT260A	Use planning software systems in manufacturing	
MSACMT261A	Use SCADA systems in manufacturing	
MSACMT270A	Use sustainable energy practices	
MSACMT280A	Undertake root cause analysis	
MSACMT281A	Contribute to the application of a proactive maintenance strategy	
MSACMT421A	Facilitate a Just in Time (JIT) system	

Unit code	Unit title	Prerequisites
MSACMT430A	Improve cost factors in work practices	
MSACMT432A	Analyse manual handling processes	
MSACMT440A	Lead 5S in a manufacturing environment	
MSACMT450A	Undertake process capability improvements	MSACMT452A
MSACMT451A	Mistake proof a production process	
MSACMT452A	Apply statistics to processes in manufacturing	
MSACMT460A	Facilitate the use of planning software systems in manufacturing	MSACMT260A
MSACMT461A	Facilitate SCADA systems in a manufacturing team or work area	MSACMT261A
MSACMT481A	Undertake proactive maintenance analyses	
MSACMT482A	Assist in implementing a proactive maintenance strategy	
MSAENV472B	Implement and monitor environmentally sustainable work practices	

GROUP E

Other Textile Technology and Product Management units that are available at Certificates IV (maximum 1), V (maximum 6) and VI (maximum 1)
Other TCF Training Package units that are available at Certificates IV (maximum 1), V (maximum 6) and VI (maximum 1)
Units from other endorsed Training Packages and accredited courses at Certificates IV (maximum 1), V (maximum 6) and VI (maximum 1)

Manufacturing Skills Australia