



**Australian Government**

**Department of Education, Employment and Workplace Relations**

# **LMT40107 Certificate IV in Certificate IV in Textile Technology and Production**

**Revision Number: 2**

## **LMT40107 Certificate IV in Textile Technology and Production**

### **Modification History**

Release 2 - imported units updated to current versions, outcomes equivalent.

### **Description**

#### **Job roles/employment outcomes**

The Certificate IV in Textile Technology and Production covers occupations such as those in technical support or production management roles within the textiles industry, with functions such as product design assistance, computer aided design and manufacturing technologies, colour coordination, production planning, quality control, technical support and problem solving. This qualification also covers a broad range of skilled applications, including evaluation and analysis of current practices, development of new criteria and procedures for performing current practice and provision of leadership and guidance to others.

#### **Application**

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

### **Pathways Information**

#### **Pathways into the qualification**

Direct entry into this qualification requires completion of a total of twenty-five (25) units of competency according to the rules described below.

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

#### **Pathways from the qualification**

Further training pathways from this qualification include LMT50407 Diploma of Textile Technology and Production Management, MSA51108 Diploma of Competitive Manufacturing or other relevant manufacturing qualifications.

### **Licensing/Regulatory Information**

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.

### **Entry Requirements**

Not applicable.

## Employability Skills Summary

### EMPLOYABILITY SKILLS QUALIFICATION SUMMARY

#### Employability Skills Summary - Certificate IV in Textile Technology and Production

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:
<b>Communication</b>	<ul style="list-style-type: none"> <li>• complete workplace documentation and records</li> <li>• use communication technologies efficiently</li> <li>• develop work instructions, specifications and procedures for production</li> <li>• demonstrate effective and appropriate communication and interpersonal skills when dealing with people from nesb</li> <li>• communicate with all team members</li> <li>• demonstrate effective and appropriate communication and interpersonal skills when dealing with clients</li> <li>• use most appropriate communication method given priority, cost and customer facilities</li> <li>• access, interpret and apply technical information</li> <li>• interpret and apply textile calculations and specifications</li> <li>• interpret production data</li> </ul>
<b>Teamwork</b>	<ul style="list-style-type: none"> <li>• work cooperatively with people of different ages, gender, race or religion</li> <li>• liaise with and provide support to other team members</li> <li>• work as part of a team</li> <li>• identify and manage performance required to meet customer needs in own work and team</li> <li>• manage technical processes and provide problem solving support to others</li> <li>• participate in sustainability improvements</li> </ul>
<b>Problem-solving</b>	<ul style="list-style-type: none"> <li>• investigate problem causes</li> <li>• identify, rectify or report potential difficulties associated with manufacture of products or provision of services</li> <li>• identify and act on environmental hazards</li> <li>• use material and process knowledge to solve problems</li> </ul>

**EMPLOYABILITY SKILLS QUALIFICATION SUMMARY**

- |  |                                                                                                                                                                                                                                                                                                                                                   |
|--|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|  | <ul style="list-style-type: none"><li>• identify hazards and implement control measures</li><li>• determine production requirements</li><li>• apply information on textile sciences to determine solutions to production or design problems</li><li>• conduct tests and analyse results to determine and assess production requirements</li></ul> |
|--|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

**EMPLOYABILITY SKILLS QUALIFICATION SUMMARY**

<b>Initiative and enterprise</b>	<ul style="list-style-type: none"><li>• seek feedback on products, processes and procedures</li><li>• gather and analyse information and apply to production processes</li><li>• record information on the quality and other indicators of products</li><li>• determine types and quantities of materials required for manufacture</li><li>• support achievement of efficient production processes</li><li>• determine and act on situations requiring further information or problem solving</li><li>• identify opportunities for improvements to environmental performance</li></ul>
<b>Planning and organising</b>	<ul style="list-style-type: none"><li>• identify hazards and implement appropriate hazard control measures</li><li>• demonstrate time management skills</li><li>• source and prepare materials and resources for production</li><li>• identify and rectify stock shortages in advance</li><li>• sequence work to maximise safety and productivity</li><li>• interpret production requirements for textile designs</li></ul>
<b>Self-management</b>	<ul style="list-style-type: none"><li>• interpret and apply relevant acts and regulations</li><li>• keep the work area clean and tidy at all times</li><li>• monitor own work and work of team and identify and act on any quality issues</li><li>• monitor use of resources</li><li>• understand own work activities</li><li>• manage own time to meet deadlines</li><li>• implement workplace procedures and instructions</li></ul>
<b>Learning</b>	<ul style="list-style-type: none"><li>• implement learning activities as appropriate to ensure achievement of specified production requirements</li><li>• assess competencies in meeting job requirements</li><li>• be supportive, assertive and use interpersonal skills</li><li>• identify own training needs and seek skill development if required</li><li>• learn about sustainability developments relating to work practice</li><li>• gather feedback to own work to assess effectiveness in meeting objectives and integrate information into own practice</li></ul>
<b>Technology</b>	<ul style="list-style-type: none"><li>• ensure textile production equipment is operated and maintained efficiently and according to workplace</li></ul>

**EMPLOYABILITY SKILLS QUALIFICATION SUMMARY**

	standards <ul style="list-style-type: none"> <li>• use computer software applications effectively</li> <li>• work with technology safely and according to workplace standards</li> <li>• help others use textile technology efficiently and safely</li> <li>• use testing technology</li> </ul>
--	-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

**Packaging Rules**

To be awarded the Certificate IV in Textile Technology and Production, competency must be achieved in twenty-five (25) units of competency.

- Eleven (11) core units of competency
- Fourteen (14) elective units of competency as specified below.

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

**CORE UNITS**

Complete all eleven (11) 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
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

Unit code	Unit title
LMTTX4003A	Perform routine textile testing and analyse results
MSAENV272B	Participate in environmentally sustainable work practices

## ELECTIVE UNITS

Select fourteen (14) 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 B
- A maximum of four (4) units may be selected from Group D
- A maximum of four (4) units may be selected from Group E
- The remainder must be selected from Groups A and C.

NOTE: Competitive Manufacturing Training Package units, identified in Group D as MSACM coded units, should be selected on the basis of work requirements. Those at Certificate II level (units in the 200 series) are appropriate for operators. MSACM units for those in Certificate III level positions such as team leaders should be selected from both the 200 series and the 400 series.

### GROUP A

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



<b>Unit code</b>	<b>Unit title</b>	<b>Prerequisites</b>
	for product change	

Unit code	Unit title	Prerequisites
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	LMTTX4002A

**GROUP B**

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	

Unit code	Unit title	Prerequisites
LMTLG3001A	Make a prototype	
LMTTF2001A	Despatch products	
LMTTF2003A	Package and handle products for despatch	
LMTTF2004A	Add reinforcements and attachments	
LMTTF2005A	Translate information into measurements or diagrams	
LMTTF2006A	Measure and scale geometric shapes	LMTTF2005A
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 product	
LMTTF2014A	Weld plastic materials	
LMTTF2016A	Install products on and off-site	
LMTTF2017A	Cut, bend and shape metal	
LMTTF2018A	Use canvas and sail production tools	

Unit code	Unit title	Prerequisites
LMTTF2019A	Inspect canvas or sail product	
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 nonwoven 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 finishing	

<b>Unit code</b>	<b>Unit title</b>	<b>Prerequisites</b>
	processes	

Unit code	Unit title	Prerequisites
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 dyeing equipment	
LMTTX2011B	Repair textile product	
LMTTX2012B	Perform industrial sewing on textile products	

<b>Unit code</b>	<b>Unit title</b>	<b>Prerequisites</b>
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 operation of textile machines	
LMTTX3007B	Prepare dyes for textile production	
LMTTX3008B	Select raw materials	

Unit code	Unit title	Prerequisites
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 mechanical faults in loom and other weaving equipment	
LMTTX3020A	Identify and correct weaving process faults	
LMTTX3021A	Apply knowledge of weaving processes to	



<b>Unit code</b>	<b>Unit title</b>	<b>Prerequisites</b>
	production requirements	

Unit code	Unit title	Prerequisites
LMTTX3022A	Set up and operate weaving loom for production	

**GROUP C**

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

**GROUP D**

Unit code	Unit title	Prerequisites
MSS402010A	Manage the impact of change on own work	
MSS403010A	Facilitate change in an organisation implementing competitive systems	

<b>Unit code</b>	<b>Unit title</b>	<b>Prerequisites</b>
	and practices	

Unit code	Unit title	Prerequisites
MSS402001A	Apply competitive systems and practices	
MSS402002A	Sustain process improvements	
MSS403001A	Implement competitive systems and practices	
MSS403002A	Ensure process improvements are sustained	
MSS402020A	Apply quick changeover procedures	
MSS402021A	Apply Just in Time procedures	
MSS402030A	Apply cost factors to work practices	
MSS402031A	Interpret product costs in terms of customer requirements	
MSS402040A	Apply 5S procedures	
MSS402050A	Monitor process capability	
MSS402060A	Use planning software systems in operations	
MSS402061A	Use SCADA systems in operations	
MSACMT270A	Use sustainable energy practices	

Unit code	Unit title	Prerequisites
MSS402080A	Undertake root cause analysis	
MSS402081A	Contribute to the application of a proactive maintenance strategy	
MSS403021A	Facilitate a Just in Time system	
MSS403030A	Improve cost factors in work practices	
MSS403032A	Analyse manual handling processes	
MSS403040A	Facilitate and improve implementation of 5S	
MSS404050A	Undertake process capability improvements	MSS404052A
MSS403051A	Mistake proof an operational process	
MSS404052A	Apply statistics to operational processes	
MSS404060A	Facilitate the use of planning software systems in a work area or team	MSS402060A
MSS404061A	Facilitate the use of SCADA systems in a team or work area	
MSS404081A	Undertake proactive maintenance analyses	

Unit code	Unit title	Prerequisites
MSS404082A	Assist in implementing a proactive maintenance strategy	
MSAENV472B	Implement and monitor environmentally sustainable work practices	

## GROUP E

Other Textile Technology and Production units that are available at Certificates IV (maximum 4) or V (maximum 1)

Other TCF Training Package units that are available at Certificates III (maximum 1), IV (maximum 4) and V (maximum 1)

Units from other endorsed Training Packages and accredited courses at Certificates III (maximum 1), IV (maximum 4) and V (maximum 1)