



Australian Government

MSTFD4016 Sew design prototypes

Release: 1

MSTFD4016 Sew design prototypes

Modification History

Release 1. Supersedes and is equivalent to LMTFD4016B Sew design prototypes

Application

This unit of competency covers the skills and knowledge required to assemble a prototype garment using commercial machines.

The unit of competency applies to producing a garment that is not designed to be worn but will be used for the purposes of confirming elements of design and production requirements.

This unit covers sewing and assembly skills only.

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

Fashion design and technology

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 for garment assembly	2.1	Collect and organise relevant information on design concept
		2.2	Prepare work pieces according to design concept
		2.3	Lay out pattern pieces and pin or tack to the fabric to match fabric pattern, nap and weave
		2.4	Lay out garment components according to sequence of assembly operations
		2.5	Set up workbench and seating and adjust machines according to specifications for work
3	Assemble garment components	3.1	Assemble components according to WHS practices and accepted garment assembly techniques
		3.2	Check garment for sizing and appearance
		3.3	Adjust garment to better display design characteristics and correct fabric alignment, garment fitting and other features
4	Complete prototype	4.1	Complete required hand sewing and finishing according to design concept requirements
		4.2	Press garment according to fabric requirements and garment construction details
		4.3	Check quality and impact of finished garment against original design concept
		4.4	Note any assembly issues and inform appropriate personnel

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
- 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

Australian Standards include:

- the relevant industry or Australian Standards that are current at the time this unit is being undertaken

Work pieces include one or more of the following:

- pieces of fabric which have been cut according to the pattern requirements
- a range of fabric types, including cottons, woollens, synthetics, velvets, lace, stretch and knitted
- single and multi-directional prints
- interfacings and linings

Fabric includes one or more of the following:

- lace
- woven and knitted fabrics and threads, such as denim
- single knits
- tricot
- gabardine

Garment components include the following:

- sleeves
- waistbands (straight/shaped)
- collars
- cuffs
- plackets
- facings (neck and armhole)

- binds
- zips (dress, skirt, trouser and invisible)
- buttons and buttonholes

Machines include one or more of the following:

- commercial sewing machine
- three thread overlocker
- zigzag sewing machine

Appropriate personnel include one or more of the following:

- patternmakers
- designers
- production personnel
- sample machinists

Unit Mapping Information

Release 1. Supersedes and is equivalent to LMTFD4016B Sew design prototypes

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 MSTFD4016 Sew design prototypes

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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) and safe work practices
- applying relevant standards
- operating a commercial sewing machine or overlocking machine to assemble a prototype garment
- preparing and laying out pattern pieces for at least two (2) garments, and attaching to the fabric to match fabric pattern, nap and weave
- laying out garment components according to sequence of assembly operations and sequencing operations as specified
- sewing and finishing at least two (2) garments according to specifications
- adjusting garment to better display design characteristics and correct fabric alignment, garment fitting and other features
- completing required hand sewing and finishing, and pressing garment according to fabric requirements and garment construction details
- checking prototype satisfies quality criteria and original design concept and advising appropriate people of assembly issues.

Knowledge Evidence

Evidence must be provided that demonstrates knowledge of:

- safe work practices and procedures and use of personal protective equipment (PPE)
- relevant Australian Standards
- techniques in using and maintaining three thread overlocker and commercial sewing machines:
 - correct thread, needle size and type, needle guard, tension setting and attachments
 - checking for worn components that may impact on sewing operations
 - routine cleaning and oiling
- characteristics of a range of commercially available fabrics
- methods of assembling garment pieces for the purposes of prototype production
- the impact of adjustments to garment components or seams
- embellishments that are used in garment assembly
- garment assembly issues:
 - complex or time-consuming assembly

- quality
- difficulty in following pattern or design concepts
- problems arising from material selection
- issues relating to sizing or fabric cuts
- hand sewing and finishing techniques:
 - attaching buttons and other closures
 - attaching embellishments such as trims, badges
 - hemming and overstitching
 - gluing and bonding trims
- quality criteria:
 - proportion
 - perspective
 - symmetry and balance
 - detailing
 - neatness.

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 sewing design prototypes, 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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