



Australian Government

MSFFDM4014 Produce manual and computer-aided drawings from design concepts

Release: 1

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Modification History

Release 1. Unit code and title changed. Application changed. Elements and Performance Criteria simplified and changed to active voice. Range of Conditions removed with relevant information moved to Assessment Requirements. Assessment Requirements changed to include volume and frequency of evidence and remove duplication with Performance Criteria. Supersedes and is not equivalent to MSFDN4001 Produce drawings from design concepts.

Application

This unit describes the skills and knowledge required to produce manual and computer-aided drawings of furnishing or similar products from design concepts.

This unit applies to individuals required to create drawings as part of their job role in design, manufacturing and similar workplaces, either alone or as part of an internal or external team.

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

Competency Field

Design documentation and machine interface

Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare for drawing work	1.1 Identify product purpose, characteristics and production materials and methods, and assess impact of these on drawing process 1.2 Confirm type of drawing to be developed from information and select appropriate medium and tools 1.3 Set up hardware and software as required in accordance with operating instructions and workplaces procedures 1.4 Identify drawing conventions and specifications for notation on drawing 1.5 Establish and document design concept requirements, identifying dimensions, angles, shapes and finished size
2. Quantify and draft	2.1 Accurately plot dimensions from prototype sketch and documented

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
initial drawing	specifications 2.2 Connect dimensional points to match appropriate drawing view 2.3 Accurately note required production information or special requirements 2.4 Note drawing conventions and specifications on documentation
3. Complete drawing	3.1 Check angles, shapes and dimensions against specifications and concept prototype drawing 3.2 Identify and make required adjustments to designs based on review and consultation with relevant people 3.3 Check drawing for compliance with workplaces documentation requirements 3.4 Store data files in accordance with operating instructions and workplaces procedures

Foundation Skills

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

- Numeracy skills to interpret technical information and perform calculations.
- Reading skills to interpret the product or design specifications.
- Writing skills to document production and other requirements.

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

Unit Mapping Information

Release 1. Supersedes and is not equivalent to MSFDN4001 Produce drawings from design concepts.

Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=0601ab95-583a-4e93-b2d4-cfb27b03ed73>

Assessment Requirements for MSFFDM4014 Produce manual and computer-aided drawings from design concepts

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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:

- interpret specifications and measurements in two and three-dimensional (2D and 3D) form, and:
 - produce three drawings from design concepts, including:
 - one manual drawing
 - one computer-aided 2D drawing
 - one computer-aided 3D drawing
 - select appropriate equipment and software to achieve the drawing requirements
 - utilise the features and functions of equipment and software in a best-practice manner.

Knowledge Evidence

There must be evidence the candidate has knowledge of:

- manual and computer-aided drawing:
 - processes
 - techniques
 - expected features
 - presentation protocols
- principles for design and manufacture, especially relating to furniture and furnishings
- current industry-standard softwares used for CAD, including their features and functions:
 - drawing tools
 - view displays
 - edit functions
 - working with layers
 - plotting
 - printing
- regulatory requirements, recognised standards and codes, and industry practices for drawing.

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:
 - design concepts
 - specifications
 - drawing equipment and current industry-standard software

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

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