



Australian Government

Department of Education, Employment and Workplace Relations

LMFFM3011B Produce manual and computer-aided production drawings

Revision Number: 1

LMFFM3011B Produce manual and computer-aided production drawings

Modification History

Not applicable.

Unit Descriptor

Unit descriptor	This unit covers the competency to produce production drawings using both manual and computer-aided methods
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Application of the Unit

Application of the unit	
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Licensing/Regulatory Information

Not applicable.

Pre-Requisites

Prerequisite units	Nil	

Employability Skills Information

Employability skills	This unit contains employability skills.
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Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.	Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.
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Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Identify object to be drawn	1.1. The purposes and any operational characteristics of object to be drawn are identified 1.2. Production materials and method are identified
2. Establish drawing criteria and limitations	2.1. Type of drawing to be completed is identified 2.2. Drawing requirements are established and documented identifying dimensions, angles, shapes and finished sizes 2.3. Drawing conventions and specifications to be noted on the drawing are identified 2.4. Appropriate medium for drawings is identified and selected
3. Quantify and draft initial drawing	3.1. Dimensions are plotted from criteria and documented specifications 3.2. Dimensional points are connected to match appropriate drawing views 3.3. Any production notes or special requirements are noted 3.4. Drawing conventions and specifications are noted on the documentation
4. Complete drawing	4.1. Angles, shapes and dimensions are checked against specifications and sample 4.2. Adjustments are made to the drawing within scope of authority 4.3. Drawing is checked for compliance with workplace documentation requirements

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

This section describes the skills and knowledge required for this unit.

Required skills

- collect, organise and understand information related to drawings work orders, plans and safety procedures
- communicate ideas and information to enable confirmation of work requirements and specifications and the reporting of drawing outcomes and problems
- plan and organise activities to avoid any back tracking or workflow interruptions
- work with others and in a team by recognising dependencies and using cooperative approaches to optimise workflow
- use mathematical ideas and techniques to correctly complete measurements, calculate area, perimeter, volume, mass, scales and ratios, and estimate material requirements
- use pre-checking techniques to anticipate drawing problems and avoid reworking
- use the limited workplace technology related to drawing tools, equipment, calculators and measuring devices

Required knowledge

- furniture design and planning criteria
- structural geometry
- measurement techniques and equipment/tools
- the theory and practice of calculations (addition, subtraction, multiplication, division)
- the types, techniques and processes of manual production drawing
- the types of computer-aided drawing equipment, software, techniques and processes
- conventional signs and markings for drawings

Evidence Guide

EVIDENCE GUIDE

The Evidence Guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.

Critical Aspects of Evidence

- Identify the factors and criteria relevant to the drawings
- Apply safety requirements throughout the work sequence, including the use of personal protective clothing and equipment
- Communicate effectively to enable accurate drawings
- Prepare production drawings of furniture/furnishings:
 - covering a scope of at least three products
 - applying both manual and computer-aided techniques and processes

Resource Implications

Information on the subjects for drawing, suitable work area appropriate to the activity, computer-aided drawing systems, measuring, calculating and recording devices.

Method of Assessment

Assessment methods must confirm consistency of performance over time and in a range of workplace relevant contexts.

Assessment should be by direct observation of tasks and questioning on underpinning knowledge.

Assessment should be conducted over time and may be in conjunction with assessment of other units of competency.

Context of Assessment

Assessment may occur on the job or in a simulated workplace facility with relevant equipment, simulated work instructions and deadlines.

Range Statement

RANGE STATEMENT	
The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.	
Scope of drawing	- Drawing is to be limited to that used for manufacture/ production purposes and is not to encompass original design concepts - Drawing is to be completed using both manual and computer-aided design techniques and processes
Unit scope	Drawings are to be in metric scale and cover all dimensions of the furniture and furnishings
Calculations	Calculations are to be performed both manually and with the aid of a calculator
Unit context	- Workplace health and safety requirements may include OH&S legislation, building codes, material safety management systems, hazardous substances and dangerous goods codes and local safe operating procedures - Work is carried out in accordance with legislative obligations, environmental legislation, relevant health regulations, manual handling procedures and organisation insurance requirements
Personal protection equipment	Personal protective equipment is to include that prescribed under legislation, regulation and enterprise policies and practices
Information and procedures	- Work procedures relating to production drawing - Work instructions, including job sheets, plans, drawings and designs - Workplace procedures relating to reporting and communication - Manufacturers' specifications and operational procedures

Unit Sector(s)

Unit sector	Furniture Making
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Competency field

Competency field	
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Co-requisite units

Co-requisite units		