



Australian Government

Department of Education, Employment and Workplace Relations

LMFDN4001B Produce drawings from design concepts

Revision Number: 1

LMFDN4001B Produce drawings from design concepts

Modification History

Not applicable.

Unit Descriptor

Unit descriptor	This unit covers the competency to produce manual and computer-aided drawings of objects from design concepts.
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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	
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Employability Skills Information

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

<p>Elements describe the essential outcomes of a unit of competency.</p>	<p>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.</p>
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Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Prepare for the task	1.1. Workplace health and safety requirements, including personal protection needs, are observed throughout the work 1.2. Purpose and operational characteristics of object to be drawn are identified 1.3. Production materials and method are identified
2. Establish design requirements and limitations	2.1. Type of drawing to be completed is identified 2.2. Design concept requirements are established and documented identifying dimensions, angles, shapes and finished size 2.3. Ergonomic requirements for the objects are identified, clarified and addressed throughout the work processes 2.4. Drawing conventions and specifications to be noted on the drawing are identified 2.5. Appropriate medium for drawings is identified and selected
3. Quantify and draft initial drawing	3.1. Dimensions are plotted from prototype sketch and documented specifications 3.2. Dimensional points are connected to match appropriate drawing view 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 concept prototype drawing 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 describes the essential skills and knowledge and their level, required for this unit.

Required skills

- research, collect, organise and understand information related to the design concept, including the relevant technical, regulatory, cultural, environmental and safety requirements
- communicate ideas and information to enable clarification of the conceptual requirements, coordination of work with site supervisor, other workers and customers, and the reporting of work outcomes and problems
- plan and organise activities, including the preparation and layout of the worksite and the obtaining of equipment, systems and materials to avoid any back tracking, workflow interruptions or wastage
- work with others and in a team by recognising dependencies and using cooperative approaches to optimise workflow and productivity
- use mathematical ideas and techniques to correctly complete measurements, calculate area and dimensions, create accurate and scaled drawings, and estimate material requirements
- create and apply systematic problem solving techniques to anticipate drawing problems, avoid re-working and wastage
- use the workplace technology related to the drawing, including drafting tools and equipment, calculators and measuring devices and computing/computer-aided systems

Required knowledge

- manual and computer-aided drawing processes and techniques
- ergonomic principles for furniture design and manufacture
- presentation standards
- enterprise or equivalent operating procedures, including procedures for preparing drawings and presenting information
- relevant regulatory requirements, recognised standards and codes, and industry practices

Evidence Guide

EVIDENCE GUIDE	
<p>The Evidence Guide provides advice on assessment and must be read in conjunction with the Performance Criteria, Required Skills and Knowledge, the Range Statement and the Assessment Guidelines for the relevant Training Package.</p>	
<p>Critical aspects of evidence</p>	<ul style="list-style-type: none"> • Locate, interpret and apply relevant information • Apply safety requirements throughout the work sequence, including the use of personal protective clothing and equipment • Identify requirements of task and organise work to achieve goals and results • Interpret specifications and measurements in two and three-dimensional form • Satisfy ergonomic criteria during the drawing process • Present relevant information within the production drawing using both manual and computer-aided processes and techniques • Suggest improvements to drawing activities and where authorised, negotiate changes • Modify activities to cater for variations in workplace cultures and environment
<p>Resource implications</p>	<p>Design concept, specifications, dimensions and drawing equipment.</p>
<p>Method of assessment</p>	<p>Assessment methods must confirm consistency of performance over time and in a range of workplace relevant contexts.</p> <p>Assessment should be by direct observation of tasks and/or samples of work and questioning on underpinning knowledge.</p> <p>Assessment should be conducted over time and will generally be in conjunction with assessment of other units of competency.</p>
<p>Context of assessment</p>	<p>Assessment may occur on the job or in a simulated workplace facility with relevant equipment, simulated work instructions and deadlines.</p>

Range Statement

RANGE STATEMENT	
<p>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 in the Performance Criteria is detailed below. Add any 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.</p>	
Unit scope	<ul style="list-style-type: none"> • The drawings to be produced are intended for use in a furnishing industry production or manufacturing environment • Drawings are to be produced using both manual and computer-aided processes • Drawings are to be both two and three-dimensional
Unit context	<ul style="list-style-type: none"> • OHS requirements include legislation, building codes, material safety management systems, hazardous substances and dangerous goods codes and safe operating procedures • Work is carried out in accordance with legislative obligations, environmental legislation, relevant health regulations, authorised handling procedures and organisation insurance requirements • Work requires individuals to demonstrate conceptual ability, discretion, judgement and problem solving skills in the completion of drawings
Workplace environment	<ul style="list-style-type: none"> • The work may be conducted in any of the enterprises of the sectors that form part of the furnishing industry • Work is generally performed with little external assistance and with minimal supervision or direction • Drawing is to be undertaken in accordance with established industry and/or enterprise practices and procedures • Customers may be internal or external
Tools and equipment are to include:	<ul style="list-style-type: none"> • drafting table • drawing aids • computing equipment and work station and special lighting conditions
Materials are to include:	<ul style="list-style-type: none"> • drawing and computing consumables
Personal protective equipment	<p>Personal protective equipment is to include that prescribed under legislation, regulation and enterprise policies and</p>

RANGE STATEMENT	
	practices
Information and procedures	<ul style="list-style-type: none"> • Work procedures/instructions • Designer's concept and specifications/instructions • Legislation/regulations/codes relevant to the work undertaken • Furniture design principles and criteria, including ergonomic requirements • Quality and Australian standards and procedures

Unit Sector(s)

Unit sector	Furnishing Design
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Co-requisite units

Co-requisite units	
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Functional area

Functional area	
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