



Australian Government

Department of Education, Employment and Workplace Relations

AURT225191A Produce drawings from design concepts

Release: 1

AURT225191A Produce drawings from design concepts

Modification History

Not Applicable

Unit Descriptor

Unit descriptor	This unit covers the competence to produce drawings of objects from design concepts.
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Application of the Unit

Application of the unit	Drawings are to include assembly type components which are hand drawn and may include computer-aided drawings. Work requires individuals to demonstrate judgement and problem-solving skills in managing own work activities and contributing to a productive team environment. Work is carried out in accordance with award provisions.
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Licensing/Regulatory Information

Not Applicable

Pre-Requisites

Prerequisite units		

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. Purpose (and operational characteristics) of object to be drawn are identified 1.2. 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. Drawing conventions and specifications to be noted are 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 drawing view 3.3. Production notes or special requirements are noted 3.4. Drawing conventions and specifications are noted
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 section describes the skills and knowledge required for this unit.

Required skills

- collect, organise and understand information
- research and interpretive skills to locate, interpret and apply drawing production techniques and procedures
- English literacy and communication skills in relation to dealing with others involved in design work
- questioning and active listening skills, for example when obtaining information of technical quality working practices and drawing production procedures
- apply planning and organising skills to one's own work activities, including making

REQUIRED SKILLS AND KNOWLEDGE

good use of time and resources, sorting out priorities and monitoring one's own performance

- interact effectively with other people both on a one-to-one basis and in groups, including understanding and responding to the needs of a client and working effectively as a member of a team to achieve a shared goal
- establish safe and effective work processes which anticipate and/or resolve problems and downtime, to systematically develop solutions to avoid or minimise reworking and avoid wastage
- use mathematical ideas and techniques to correctly calculate time, assess tolerances, apply accurate measurements, calculate material requirements and establish quality checks
- use workplace technology related to the production of drawings, including the use of measuring equipment and communication devices and the reporting/documenting of results

Required knowledge

A working knowledge of:

- OH&S regulations/requirements, equipment, material and personal safety requirements
- common automotive terminology and vehicle safety requirements
- design and techniques for translating concepts into form
- design standards, including Australian Design Rules
- technical drawing procedures
- detailed site reporting procedures
- work organisation and planning processes
- enterprise quality processes

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.

Overview of assessment

Critical aspects for assessment and evidence required to demonstrate competency in this unit

It is essential that competence in this unit signifies ability to transfer competence to changing circumstances and to respond to unusual circumstances in the critical aspects of:

- observing safety procedures and requirements
- communicating effectively with others involved in or affected by the work
- selecting methods and techniques appropriate to the circumstances
- completing preparatory activity in a systematic manner
- interpreting specifications and measurements in two and three dimensional form
- presenting information within production drawings
- completing essential post-activity housekeeping

Context of, and specific resources for assessment

Application of competence is to be assessed in the workplace or simulated worksite

Assessment is to occur using standard and authorised work practices, safety requirements and environmental constraints

Assessment is to comply with regulatory requirements, including Australian Standards

The following resources should be made available:

- workplace location or simulated workplace
- material relevant to the production of drawings
- equipment, hand and power tooling appropriate to the production of drawings
- activities covering mandatory task requirements
- specifications and work instructions

Method of assessment

Assessment must satisfy the endorsed assessment guidelines of the automotive industry's RS&R Training Package

Assessment methods must confirm consistency and accuracy of performance together with application of underpinning knowledge

Assessment must be by direct observation of tasks, with questioning on underpinning knowledge and it must also

EVIDENCE GUIDE	
	reinforce the integration of key competencies Assessment may be applied under project related conditions and require evidence of process Assessment must confirm a reasonable inference that competence is able not only to be satisfied under the particular circumstance, but is able to be transferred to other circumstances It is preferable that assessment reflects a process rather than an event and occurs over a period of time to cover varying quality circumstances. Evidence of performance may be provided by customers, team leaders/members or other persons subject to agreed authentication arrangements Competence in this unit may be assessed in conjunction with other functional units which together form part of the holistic work role
Guidance information for assessment	

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.	
OH&S	OH&S requirements are to be in accordance with legislation/regulations/codes of practice and enterprise safety policies and procedures. This may include protective clothing and equipment, workplace environment and safety and enterprise first aid
Personal protective equipment	Personal protective equipment is to include that prescribed under legislation/regulations/codes of practice and workplace policies and practices

RANGE STATEMENT	
Safe operating procedures	Safe operating procedures are to include, but are not limited to the conduct of operational risk assessment and treatments associated with site safety, working in proximity to others and site visitors
Emergency procedures	Emergency procedures related to this unit are to include, but are not limited to enterprise first aid requirements and site evacuation
Environmental requirements	Environmental requirements are to include but are not limited to waste management and clean-up management
Quality requirements	Quality requirements are to include, but are not limited to regulations, including Australian Standards, internal company quality policy and standards and enterprise operations and procedures
Statutory/regulatory authorities	Statutory/regulatory authorities may include Federal, State/Territory and local authorities administering acts, regulations and codes of practice
Resources	Resources are to include drawing equipment/aids which are manual and electronically based
Communications	Communications are to include, but are not limited to verbal and visual instructions and may include site specific instructions, written instructions, plans or instructions related to job/task, telephones and pagers
Information/documents	Sources of information/documents may include: • schedules/plans/specifications, memos, material safety data sheets, diagrams or sketches • regulatory/legislative requirements pertaining to the automotive industry, including Australian Design Rules • organisation work specifications and requirements • instructions issued by authorised enterprise or external persons

RANGE STATEMENT

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| | <ul style="list-style-type: none">• Australian Standards |
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Unit Sector(s)

Unit sector	Technical
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Co-requisite units

Co-requisite units		

Competency field

Competency field	
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