



Australian Government

Department of Education, Employment and Workplace Relations

AURT577520A Prepare technical reports

Release: 1

AURT577520A Prepare technical reports

Modification History

Not Applicable

Unit Descriptor

Unit descriptor	This unit covers the competence to identify and analyse requirements, to plan and conduct research, to evaluate information and findings, and to develop, document and present technical reports.
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Application of the Unit

Application of the unit	A technical report is one that researches, analyses and reports on the specifications and/or effectiveness of existing or proposed technical systems, componentry, materials and/or processes.
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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. Prepare for the reporting requirement	1.1. Purpose or objective of the report is identified, clearly defined and confirmed with the customer or sponsor. 1.2. Project timeframe and outline plan of the main activities are prepared and confirmed with key parties. 1.3. Requirements for information entry, storage, output and quality of document production are identified in accordance with enterprise procedures.
2. Plan the research effort	2.1. Scope and nature of the information requirements are identified. 2.2. All possible sources of the required information are researched and identified. 2.3. A systematic research or information collection plan is designed to optimise the process. 2.4. Resources are obtained and scheduled to service the research requirements.
3. Conduct research	3.1. Research is undertaken effectively in accordance with the plan. 3.2. Experiments and tests to support the research effort are conducted in a manner which ensures the demonstrable integrity of the outcomes or findings. 3.3. Research findings are logged, documented and stored to maintain traceability. 3.4. Preliminary analysis is conducted to identify requirements for variations or additions to the research plan.
4. Analyse the information	4.1. Information is sorted, documented and prepared for the analytical process. 4.2. Information and data is manipulated to enable reasonable comparisons and judgements. 4.3. Clarification by way of expert advice and opinion is sought. 4.4. Conclusions and findings reached are logical and based on objective analysis of the available data.
5. Prepare and present the report	5.1. Report clearly defines the objectives, process, findings and further actions. 5.2. Report addresses and satisfies the stated objective and timeframe. 5.3. Report and associated presentation materials are of a

ELEMENT	PERFORMANCE CRITERIA
	<p>standard and quality for the intended audience.</p> <p>5.4. Reader comprehension of the report is aided by use of executive summaries and attachments.</p> <p>5.5. Protocols, conventions and legal requirements related to acknowledgements and intellectual property are applied.</p> <p>5.6. Information management requirements, including documenting and repository actions are satisfied in accordance with enterprise procedures.</p>

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

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

Required skills

- research, collect, organise and understand technical information related to the subject area, developmental activities, testing processes, diagnostic methods and options and safety procedures.
- communicate ideas and information to ensure the completeness, clarity and comprehension of the technical report by the target audience.
- plan and organise the research and writing effort to avoid backtracking, workflow interruptions or wastage.
- work with others and in a team by recognising dependencies and using cooperative approaches to optimise research and writing.
- use mathematical ideas and techniques to incorporate calculation, measurements, calibration and test requirements into research and validation activities.
- establish processes which anticipate and allow for risks, cater for both direct and indirect causes, avoid or minimise reworking and avoid wastage in the research and report preparation activities.
- use the workplace technology related to document preparation, including computing systems and information management systems, calculators and measuring devices.

Required knowledge

- technical writing and presentation techniques.
- enterprise (or equivalent) technical procedure formats, content rules, preparation and management techniques.

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, range statement and the Assessment Guidelines for the Training Package.</p>	
Overview of assessment	
Critical aspects for assessment and evidence required to demonstrate competency in this unit	<ul style="list-style-type: none"> • Locate, interpret and apply information. • Apply safety requirements throughout the work sequence, including the use of personal protective clothing and equipment. • Identify and itemise steps and stages covering confirmation of objective, research planning and conduct and report preparation. • Complete a significant technical report covering: <ul style="list-style-type: none"> • detailed research of the topic area • a full analysis of the research outcomes • conclusions and recommendations clearly supported by the facts • satisfaction of legal, regulatory or intellectual property law requirements. • Modify activities to cater for variations in research findings. • Work effectively with others.
Context of, and specific resources for assessment	<p>Assessment may occur on the job or in a workplace simulated activity.</p> <p>Access to a significant technical research and reporting requirement, information sources and a working environment.</p>
Method of assessment	<p>Assessment of this unit of competence is most likely to be project related and require portfolios or other forms of indirect evidence of process. Direct evidence will include acceptance of the final outcome/report by a competent authority.</p> <p>Assessment must confirm the inference that competence is able not only to be satisfied under the particular circumstances, but is able to be transferred to other projects.</p> <p>Competence in this unit may be assessed in conjunction with other functional units which together form part of the holistic work role.</p>
Guidance information for assessment	

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, 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.</p>	
Unit context	<ul style="list-style-type: none"> • OH&S requirements include legislation, safety management systems, hazardous substances and dangerous goods codes and safe operating procedures. • Work is carried out in accordance with legislative obligations, environmental legislation, health regulations, authorised handling procedures and organisation insurance requirements. • Work requires individuals to demonstrate conceptual ability, discretion, judgement and problem-solving skills.
Workplace environment	<p>Work may involve individual and team related activities.</p> <p>Work may be carried out in a commercial, workshop, laboratory or research establishment.</p>
Personal protective equipment	<p>Personal protective equipment is to include that prescribed under legislation, regulations and enterprise policies and practices.</p>
Information and procedures	<ul style="list-style-type: none"> • Workplace procedures relating to reporting and communication. • Vehicle industry publications related to emerging system technology and technology changes. • Professional publications. • Automotive research collections and access facilities. • Manufacturer/component supplier specifications and application procedures for testing equipment and materials. • Manufacturer/component supplier

RANGE STATEMENT	
	specifications, schematics and operational procedures related to systems. <ul style="list-style-type: none"> • Australian Standards. • Australian Design Rules. • Vehicle industry regulations.

Unit Sector(s)

Unit sector	Technical
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Co-requisite units

Co-requisite units	

Competency field

Competency field	
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