Australian Government

Department of Education, Employment and Workplace Relations

MEM16012A Interpret technical specifications and manuals

Release: 1

MEM16012A Interpret technical specifications and manuals

Modification History

Not Applicable

Unit Descriptor

Unit descriptor	This unit covers identifying, accessing, interpreting and analysing technical information in an enterprise, including quality documentation, equipment manufacturer specifications, engineering data sheets and national standards. It also covers explaining and using the information, and identifying implications of changes to technical information.

Application of the Unit

Application of the unit	This unit goes beyond routine accessing and interpretation of technical information. This unit applies to the identification, access, interpretation and analysis of technical information to enable carrying out engineering or manufacturing activities. For routine accessing, organising and communication of information related to processes or tasks, MEM16006A Organise and communicate information should be regarded as sufficient. **Band**: **B** **Unit Weight**: **4**

Licensing/Regulatory Information

Not Applicable

Pre-Requisites

Prerequisite units	

Employability Skills Information

Employability skills	This unit contains employability skills.

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.

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Identify and locate technical information resources	1.1. Information needs are identified and confirmed with appropriate persons. 1.2. Workplace information resources are identified and their location is determined in the information system. 1.3. Appropriate technical information is obtained.
2. Access technical information	2.1. Relevant technical information is located using search techniques appropriate to the resource and information requirements. 2.2. Symbols, codes, legends, and abbreviations are interpreted correctly. 2.3. Technical information is accessed and relevant application is understood. 2.4. Clarification or further explanation of technical information is obtained, where required. 2.5. If applicable, the revision status of the technical information is verified to ensure current status.
3. Interpret and analyse technical information	3.1. Technical information/data appropriate to work requirements and/or application is checked for currency and authenticity. 3.2. Technical information is interpreted and analysed for use in given engineering or manufacturing applications. 3.3. Technical information is used according to the specific engineering or manufacturing application.
4. Explain and use information	4.1. Information and analyses is explained and distributed to appropriate personnel. 4.2. Information resources are used according to work requirements. 4.3. Where applicable, work is undertaken in accordance with acquired technical information.
5. Identify implications of changes to technical information	5.1. Technical information systems are monitored for changes. 5.2. Personnel affected by changes to internal or external specifications or other technical information are identified. 5.3. Means of distributing changed information are established. 5.4. Changes to technical information are documented

ELEMENT	PERFORMANCE CRITERIA
	according to enterprise procedures.

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

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

Required skills

Look for evidence that confirms skills in:

- accessing, reading and following information on written job instructions, specifications, standard operating procedures, charts, lists, drawings and other applicable reference documents
- planning, sequencing operations
- following oral/written instructions
- checking and clarifying task-related information
- checking for conformance to specifications
- undertaking numerical operations and calculations/formulae within the scope of this unit
- entering information onto workplace documents
- accessing and using technical documentation
- identifying and using correct specifications for process and/or systems
- using components of system, where appropriate
- completing formal documentation and reporting as required
- adopting appropriate communication strategy, including confirmation of received information and distribution of instructions
- communicating information in ways appropriate for the audience
- maintaining appropriate records
- identifying and analysing implications of changes to information systems

Required knowledge

Look for evidence that confirms knowledge of:

- available industry information resources
- uses and applications of information resources
- range of formats that information can be presented
- safe work practices and procedures
- location and retrieval requirements of system information
- correct process used to identify relevant specifications

REQUIRED SKILLS AND KNOWLEDGE
• quality improvement processes for information systems • interpretation of technical data and information • appropriate communication strategies • dissemination of information regarding information systems • a range of instructional techniques • implications of changes to technical information • procedures for responding to information changes • hazards and control measures associated with changes to technical information, including housekeeping • safe workplace practices and procedures

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	A person who demonstrates competency in this unit must be able to interpret and analyse information from specifications and manuals.
Critical aspects for assessment and evidence required to demonstrate competency in this unit	Assessors must be satisfied that the candidate can competently and consistently perform all elements of the unit as specified by the criteria, including required knowledge, and be capable of applying the competency in new and different situations and contexts.
Context of and specific resources for assessment	This unit may be assessed on the job, off the job or a combination of both on and off the job. Where assessment occurs off the job, that is the candidate is not in productive work, then an appropriate simulation must be used where the range of conditions reflects realistic workplace situations. The competencies covered by this unit would be demonstrated by an individual working alone or as part of a team. The assessment environment should not disadvantage the candidate. This unit could be assessed in conjunction with any other units addressing the safety, quality, communication, materials handling, recording and reporting associated with interpreting and analysing information from specifications and manuals or other units requiring the exercise of the skills and knowledge covered by this unit.
Method of assessment	Assessors should gather a range of evidence that is valid, sufficient, current and authentic. Evidence can be gathered through a variety of ways including direct observation, supervisor's reports, project work, samples and questioning. Questioning techniques should not require language, literacy and numeracy skills beyond those required in this unit of competency. The candidate must have access to all tools, equipment, materials and documentation required. The candidate must be permitted to refer to any relevant workplace procedures, product and manufacturing specifications, codes, standards, manuals and reference materials.
Guidance information for	

EVIDENCE GUIDE	
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.	
Information resources	Documented management system (manufacturing, quality, environmental, occupational health and safety), manufacturers' manuals, specifications, Australian and international standards, customer requirements, industry manuals, codes of practice, legislation etc. in hard and soft copy
Location	Reference libraries, workplace storage areas, internet, site
Information system	Internal and/or external. The system would typically have documentation tiers
Technical information	Technical information and data suitable and appropriate for advanced trade and technician applications within the enterprise. This unit does not cover documentation written for professional engineering or scientist applications
Search techniques	• Computer database and internet search/look-up • Standard techniques to identify relevant information including skimming and scanning, identifying key words/ideas, using index, table of contents, numbering and classification systems etc.
Analyses	Conclusions made from the analysis of technical information

Unit Sector(s)

Unit sector	

Co-requisite units

Co-requisite units		

Competency field

Competency field	Communication