Australian Government

Department of Education, Employment and Workplace Relations

ICASAS416A Implement maintenance procedures

Release: 1

INDUSTRY
SKILLS
COUNCILS
Creating Australia's Future

ICASAS416A Implement maintenance procedures

Modification History

Version	Comments
ICASAS416A	This version first released with *ICA11 Information and Communications Technology Training Package version 1.0*

Unit Descriptor

This unit describes the performance outcomes, skills and knowledge required to set up maintenance procedures to keep equipment and software operating effectively.

Application of the Unit

This unit applies to frontline technical support personnel, such as IT support technicians, and user support specialists responsible for maintaining computer equipment in an organisation.

Licensing/Regulatory Information

No licensing, legislative, regulatory or certification requirements apply to this unit at the time of endorsement but users should confirm requirements with the relevant federal, state or territory authority.

Pre-Requisites

Not applicable.

Employability Skills Information

This unit contains employability skills.

Elements and Performance Criteria Pre-Content

Element	Performance Criteria
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

1. Determine best practices for equipment and software maintenance	1.1 Identify equipment and *software* that are to be maintained and implement processes to ensure future acquisitions of *equipment* and software are identified
	1.2 Identify vendor *documentation*, peer organisations or research information detailing best practices in equipment and software maintenance to improve system performance and reliability
	1.3 Develop recommended maintenance and operations guidelines for equipment and software maintenance based on the above research
	1.4 Obtain *requirements* from *user* in the area of equipment maintenance and reliability
	1.5 Document procedures for maintenance based on best practices
2. Identify resources to provide equipment and software maintenance	2.1 Identify and record the level of support that can be provided by in-house resources
	2.2 Identify and record the support to be supplied by external or third-party organisations
	2.3 Develop or update *service level agreement* (SLA) with internal user and third-party suppliers
3. Revise practices, where appropriate	3.1 Monitor and review maintenance operation
	3.2 Identify problem areas, including failures to meet SLAs, and consider changes to maintenance procedures
	3.3 Assess changes in consultation with user, support staff and third-party suppliers
	3.4 Design and implement improvements to maintenance procedures

Required Skills and Knowledge

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

Required skills

- communication skills to liaise with customers in the provision of customer services, including basic training
- initiative and enterprise skills to work as a team member in the development of solutions and goals of a non-routine or contingency nature
- literacy skills to:
    - evaluate and present information
    - write technical reports
- planning and organisational skills to contribute to maintenance and continuity of IT operations and business functions
- problem-solving skills to participate in development of strategic initiatives
- technical skills to undertake low level programming and use a range of computer equipment.

Required knowledge

- business scheduling requirements
- client business domain
- current industry-standard hardware and software products, including their general features and capabilities
- diagnostic tools
- help desk and maintenance practices
- steps of maintenance procedures
- one or more change-management tools
- quality assurance practices
- role of stakeholders and the degree of stakeholder involvement
- current performance level of the system
- system's current functionality.

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	Evidence of the ability to: • set up maintenance procedures to keep equipment and software operating.
Context of and specific resources for assessment	Assessment must ensure access to: • technical environment with a variety of operational equipment • technical manuals and tools • appropriate learning and assessment support when required • modified equipment for people with special needs.

Method of assessment	A range of assessment methods should be used to assess practical skills and knowledge. The following examples are appropriate for this unit:
	
	• direct observation of candidate setting up maintenance procures
	• review of candidate's documented procedures
	• verbal or written questioning to assess candidate's knowledge of:
	   • preventative maintenance
	   • SLAs.

Guidance information for assessment	Holistic assessment with other units relevant to the industry sector, workplace and job role is recommended, where appropriate. Assessment processes and techniques must be culturally appropriate, and suitable to the communication skill level, language, literacy and numeracy capacity of the candidate and the work being performed. Indigenous people and other people from a non-English speaking background may need additional support. In cases where practical assessment is used it should be combined with targeted questioning to assess required knowledge.

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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.

Software may include:	• commercial • customised • in-house • packaged.
Equipment may include:	• hard drives • hubs • modems and other connectivity devices, including digital subscriber line (DSL) modems • monitors • other peripheral devices • personal computers • personal digital assistants • printers • switches • workstations.
Documentation may follow:	• audit trails • client training • International Organization for Standardization (ISO), International Electrotechnical Commission (IEC) and Australian Standards (AS) standards • maintaining equipment inventory • naming standards • project management templates and report writing • satisfaction reports • version control.
Requirements may be in reference to:	• application • business • network • people in the organisation • system.
User may include:	• person within a department • department within the organisation • third party.
Service level agreement	• many different infrastructure services:

may exist for:	- application service providers (ASPs) - communications carriers - expectations regarding: - charge back to business units - penalties - servicing - internet service providers (ISPs) - SLAs for vendor products - workload and performance considerations.

Unit Sector(s)

Systems administration and support

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