![Australian Government - Department of Education, Employment and Workplace Relations]

ICASAS515A Manage the testing process

Release: 1

![Industry Skills Councils - Creating Australia's Future]

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Modification History

Release	Comments
Release 1	This Unit 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 effectively manage and administer the end-to-end testing process, including test definition, execution and reporting.

Application of the Unit

This unit applies to senior staff responsible for managing the testing team and its activities.

Applications involve participation in development of strategic initiatives as well as personal responsibility and autonomy in performing complex technical operations or organising others. It may include participation in teams, including teams concerned with planning and evaluation functions. Group or team coordination may also be involved.

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.*

Elements and Performance Criteria

1. Develop test schedule	1.1 Determine testing requirements and objectives
	1.2 Review test plan, where available
	1.3 Develop testing timeline and allocate *resources*
	1.4 Document test objectives and schedule according to test procedures and distribute to *appropriate person*
	1.5 Obtain feedback and incorporate relevant changes
2. Complete test procedures	2.1 Copy necessary code into the *testing environment*
	2.2 Allocate and manage personnel carrying out the testing process
	2.3 Administer alterations or changes to the code
	2.4 Integrate code into production environment
3. Review the completeness and accuracy of the system	3.1 Administer full system test to ensure suitability of the system
	3.2 Document outcomes of system test for use in subsequent development phases
	3.3 Evaluate results of system test to determine acceptability of system

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Required Skills and Knowledge

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

Required skills

- communication skills to:
    - liaise with colleagues and staff
    - negotiate with team members
    - present information
- literacy skills to analyse and evaluate information
- planning and organisational skills to:
    - estimate scope, time, cost and quality
    - scope communications and risk management
- problem-solving skills to develop strategic initiatives and review procedures and documentation used in the system test
- research skills to identify, analyse and evaluate:
    - broad features of system testing
    - best practice in system testing
- technical skills to use application software to analyse, evaluate and present information.

Required knowledge

- automated test tools, with detailed knowledge of some features and processes
- organisational procedures
- system requirements, with detailed knowledge of the particular system requirements and features
- system or application being tested
- testing techniques.

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: • develop a test schedule • manage the procedure • review and accept or reject a pre-implemented system based on test outcomes.
Context of and specific resources for assessment	Assessment must ensure access to: • appropriate learning and assessment support when required • modified equipment for people with special needs • human resources • requirements and design documentation • test plan • test hardware and environments (testing to be carried out on the same platform as the completed system, with scheduled testing to be on the production platform and the production environment required as part of test preparation) • system or application suitable for testing.

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 developing a test schedule
	• verbal or written questioning to assess candidate's knowledge of:
	   • entire system requirements, both development and implementation
	   • testing process
	• evaluation of candidate's documented test outcomes:
	   • confirming functionality
	   • addressing any software issues.

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. |

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.

Resources may include:	• personal computer (PC) • staff • time • software.
Appropriate person may include:	• authorised business representative • client • supervisor.
Testing environment may include:	• dedicated network • live network • testing network • development network • production network.

Unit Sector(s)

Systems administration and support