ICAT5082B Manage the testing process

Release: 1

ICAT5082B Manage the testing process

Modification History

Not Applicable

Unit Descriptor

Unit descriptor	This unit defines the competency required to effectively manage and administer the end to end testing process including test definition, execution and reporting. No licensing, legislative, regulatory or certification requirements apply to this unit at the time of publication.

Application of the Unit

Application of the unit	

Licensing/Regulatory Information

Refer to Unit Descriptor

Pre-Requisites

Prerequisite units		
	ICAT5077B	Develop detailed test plan

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.

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Elements and Performance Criteria

ELEMENT	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/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

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE
This section describes the skills and knowledge required for this unit.
Required skills
• Problem solving skills for a defined range of unpredictable problems involving participation in the development of strategic initiatives (e.g. when programs are booked out of the test environment either to development for error correction or to be copied into an 'acceptance' library when approved for production) • Plain English literacy and communication skills in relation to analysis, evaluation and presentation of information (e.g. when the procedures and documentation used in the system test are reviewed, for use again when implementing subsequent phases) • Application usage skills in relation to analysis, evaluation and presentation of information (e.g. when programs are booked out of the test environment to be copied into an 'acceptance' library/server when approved for production) • Questioning and active listening skills (e.g. when the suitability of the system: fulfilment of objectives and suitability to all parties is reviewed) • Project planning skills in relation to scope, time, cost, quality, communications and risk management (e.g. when results documentation is completed to the standard

REQUIRED SKILLS AND KNOWLEDGE

required for the project)

- Research skills for identifying, analysing and evaluating broad features of system testing and best practice in system testing (e.g. when end of the system test is determined according to when the required level of confidence is achieved)
- Negotiation skills in relation to other team members and applied to a defined range of predictable problems (e.g. when completion date and warranty issues of defects found are negotiated)

Required knowledge

- Detailed knowledge of system/application being tested
- Broad knowledge of testing techniques, with detailed knowledge of features and processes in some areas
- Broad knowledge of automated test tools, with detailed knowledge of features and processes in some areas
- Broad general knowledge of system requirements, with detailed knowledge of the particular system requirements and features
- Detailed knowledge of organisational procedures (e.g. when reviewing the completeness and accuracy of the system)

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	Evidence of the following is essential: • Assessment must confirm sufficient knowledge of entire system requirements, both development and implementation in order to effectively manage and administer a full testing process. • Assessment must confirm ability to successfully review and accept or reject a pre-implemented system based on test outcomes. To demonstrate competency in this unit the person will require access to: • Human resources assigned and in place • Requirements and design documentation • Test plan • All test hardware and environments in place and free for system test use • System/application suitable for testing
Context of and specific resources for assessment	The person will have clearly identified the results of the systems tests. The system test should clearly confirm that: • Functionality, delivered by the development team, is as specified by the business in the business design specification document and the requirements documentation • Software is of high quality; the software will replace/support the intended business functions and achieves the standards required by the organisation for the development of new systems • Software delivered interfaces correctly with existing systems If the system test does not confirm the above, then the person will have documented how the system has not

EVIDENCE GUIDE

	met the test criteria.
	The system test is a fully functional exercising of the system to be implemented, as such, all resources necessary to execute the entire system will be required.
	Effective test management should ensure that all testing is carried out on the same platform as the completed system. Scheduled testing should be on the production platform and the production environment will be required as part of test preparation.
	The breadth, depth and complexity covering planning and initiation of alternative approaches to skills or knowledge applications across a broad range of technical and/or management requirements, evaluation and coordination would be characteristic.
	Assessment must ensure:
	• The demonstration of competency may also require self-directed application of knowledge and skills, with substantial depth in some areas where judgement is required in planning and selecting appropriate equipment, services and techniques for self and others.
	• 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.
Method of assessment	The purpose of this unit is to define the standard of performance to be achieved in the workplace. In undertaking training and assessment activities related to this unit, consideration should be given to the implementation of appropriate diversity and accessibility practices in order to accommodate people who may have special needs. Additional guidance on these and related

EVIDENCE GUIDE	
	matters is provided in ICA05 Section 1.
	• Competency in this unit should be assessed using summative assessment to ensure consistency of performance in a range of contexts. This unit can be assessed either in the workplace or in a simulated environment. However, simulated activities must closely reflect the workplace to enable full demonstration of competency.
	• Assessment will usually include observation of real or simulated work processes and procedures and/or performance in a project context as well as questioning on underpinning knowledge and skills. The questioning of team members, supervisors, subordinates, peers and clients where appropriate may provide valuable input to the assessment process. The interdependence of units for assessment purposes may vary with the particular project or scenario.
Guidance information for assessment	Holistic assessment with other units relevant to the industry sector, workplace and job role is recommended. An individual demonstrating this competency would be able to: • Demonstrate understanding of a broad knowledge base incorporating theoretical concepts, with substantial depth in some areas • Analyse and plan approaches to technical problems or management requirements • Transfer and apply theoretical concepts and/or technical or creative skills to a range of situations • Evaluate information, using it to forecast for planning or research purposes • Take responsibility for own outputs in relation to broad quantity and quality parameters • Take some responsibility for the achievement of group outcomes • Maintain knowledge of industry products and services

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.

Appropriate person may include:	• supervisor • teacher • authorised business representative • client

Unit Sector(s)

Unit sector	Test

Co-requisite units

Co-requisite units		

Competency field

Competency field	